Key Transferable Skills

KEY TRANSFERABLE SKILLS

Resources for Educators

TERYN ATTWELL

RMIT Open Press Melbourne



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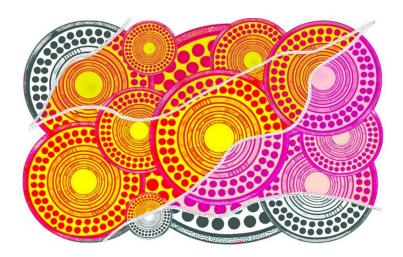
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"We would like to acknowledge Wurundjeri people of the Kulin Nations as the Traditional Owners of the land on which the University stands. We respectfully recognise Elders past and present."



XII | ACKNOWLEDGEMENT OF COUNTRY

Luwaytini' by Mark Cleaver, Palawa.

At RMIT we recognise and respect the unique culture and contribution that Aboriginal and Torres Strait Islander people bring to our communities. We are also proud to provide study, cultural, & personal support to our Aboriginal & Torres Strait Islander students in their learning journey.

ABOUT THIS RESOURCE

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EDITOR AND CONTRIBUTORS

Teryn Attwell (she/her) is a learning designer, educator, and English language content creator. She holds a Bachelor of Arts (Hons) in History, a Graduate Diploma of Education (EAL and humanities), and a Graduate Certificate in Digital Learning



and Teaching. After a decade teaching English in secondary schools and language schools in Australia, England, Vietnam and Spain, Teryn embraced the idea of a career pivot in 2020 and began creating online learning content. In 2021, she moved from teaching to learning design at RMIT University Library. Integral to Teryn's practice is an interest in authentic learning and assessment.

Contributors

Matthew Millis (he/him) reviewed pages in the Key Transferable Skills resource and also sourced and developed content for several higher order thinking pages. He is a Language Educator and Learning Designer who currently assists RMIT's students in developing their academic skills and also develops



learning materials. With a strong interest in inclusion and equity, he is dedicated to creating resources that provide learners with the tools needed for study success. He has a Bachelor of Arts (Languages), a Master of Translation Studies (Spanish to English), and a Graduate Diploma in Education.

Anagha Khedkar (she/her) reviewed pages in the Key Transferable Skills resource and evaluated OERs for inclusion in the Transferable skills resource collections. She is a Learning Designer. She has a background in customer service, content creation



and workshop facilitation. Anagha holds a Master of Communication and a Graduate Certificate in Digital Learning and Teaching. Her time at RMIT in student-facing roles, specifically in the Careers and Employability space, has allowed her the opportunity to bring the insights from these experiences to developing student-centric content. Her interest lies in creating active learning for diverse audiences.

Kaminski Meyrick reviewed pages in the Key Transferable Skills resource and evaluated OERs for inclusion in the Transferable skills resource collections. He is designer, artist and thinker. Having completed his Masters in Fine Art at the HBK in Germany, Kaminski has



worked at the interface of creative practice, education, workshop facilitation and academic research in Australia, Germany, and throughout the Balkans. When not running and operating his own small design business, Kaminski's primary research area is games, interactivity and non-linear narrative design.

Reviewers

Thank you to the RMIT University Library staff members who generously contributed their time to review content in this resource.

Lisa Cianci

Adam Ferris

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Sara Ghazi Sandy Houston AJ Penrose Kelly Ann Smith

Additionally, a special thank you to the following people for their advice and support in the development of this resource:

Riley Barber Jack Dunstan

EDUCATOR'S GUIDE

Welcome to *Key Transferable Skills*. In this book you will find open educational resources to support your lessons and your students.

Target audience

This content has been developed to engage and support learners who are:

- undergraduate students
- foundation year students
- VET students
- senior secondary students.

About the content

The content in *Key Transferable Skills* consists of material sourced from open educational resources (OERs) and material developed by educators and learning designers at RMIT University Library.

The aim of this book is to make it easier for educators to

incorporate learning on transferable skills into their delivery, and to offer students clear, relatable contextualisation of these skills. The information and activities included in the book aim to build the graduate-ready skills that learners need to excel in their tertiary studies and to succeed in the workforce.

There is no prescriptive method for utilising these resources in educational delivery. However, each chapter includes an *Educator's notes* page, offering guidance, suggestions, and examples of how the content can be used.

Key Transferable Skillsis an evolving curated collection of open educational resources.

Your role

How you use these resources will depend on your learning environment and the needs and interests of your students. Under your guidance and direction, students can engage with learning objects to complement the lessons they are currently undertaking or fill skills gaps. You can use the objects as they are or adapt the language and activities to cater to your students' needs.

The resources have been organised in a way that enables students to use them independently, or in pairs/groups with your guidance. You will find 'Reflect' boxes in many sections, which can serve as transitions into collaborative activities and broader discussions.

These digital resources are flexible and suit a range of delivery modes - you can choose the format that best suits your course and the technology your students can access. In an online learning environment, this content can be shared with students via a direct link, brought into your own LMS, or copied into your platform of choice. In a non-digital environment, PDF versions of content and transcripts of interactive activities can be printed to use in class or as supplementary material.

Ways to use these resources

The content in Key Transferable Skills can be used in many different ways. The list below offers some ideas of how you can use the text, activities, pages, or chapters from the book in your delivery.

- · Inform and motivate students by sharing the industryfocused examples and scenarios, showing them that transferable skills are highly beneficial and broadly applied in society
- Set pages with interactive activities as pre-class reading or homework
- Use selected activities in class as a starting off-point or warm-up activity

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- Provide content from a chapter as optional supplementary material
- Support assessment tasks by linking students to pages building a non-academic skill that is crucial for success in a specific task, such as reflective practice for a WIL journal
- Use the 'Reflect' boxes to guide in-person or online discussions among students in class (in-person or online) or on discussion boards
- Select relevant information and activities from different pages and combine it on your own platform to create a lesson tailored to your students
- Use writing examples as models to scaffold your students' work by looking at them together in class or asking students to review them outside of class
- Use the case studies and scenarios as supplementary material to enhance your students' understanding of a transferable skill within their specific field
- Embed an interactive H5P in your online environment to supplement your own material and boost student engagement online
- Use the content from a page or an H5P object to adapt and create a new digital learning object that better suits your needs, and then use it in your online environment.

Integration

The resources this book can be integrated into a range of learning environments. This section will help you understand how to reuse and remix content from Key Transferable Skills and ensure that you are using best practices.

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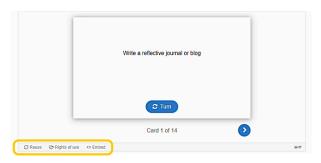
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 - 8. If text or images are taken from H5P interactive objects

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and used to make new content, all attribution information should also be moved across to the new location. You will find this information in 'Rights of Use'.

- 9. Individual H5P interactive objects can be embedded into your LMS (e.g., Canvas). Select the 'Embed' icon at the bottom of the object you wish to use, copy the iframe code, and paste it into your environment.
- 10. H5P interactive objects can be saved to your device and uploaded to your own instance of H5P, where you can then adapt the content. To do this, select the 'Reuse' icon and download the .h5p file. In your own H5P account or plugin, select 'Add New', then 'Upload' and select the .h5p file. It will then be added to your H5P Library, where you can select 'Edit' and make any necessary changes. Ensure that an attribution is added to the new H5P object and take over any 'Rights of Use' information, such as source information for images.

Note* When embedding or downloading H5P objects, remember to also save a copy of the transcript for the activity. Text-only transcripts are included under all the H5Ps in *Key Transferable Skills* which cannot be read by a screen reader.



H5P interactiv e object

Inclusivity and accessibility

This content has been curated and designed with a diverse audience in mind, considering the academic, professional, social, and cultural reality of people in Victoria, Australia. If you are outside Australia, you can still use this content by modifying it to better represent your students. This could include adapting content to make scenarios and case studies more relevant to your students, by changing things like names and places to reflect the diversity of your cohort.

To ensure the content in Key Transferable Skills is accessible to as many learners as possible, transcripts have been provided for all H5P objects. H5P objects are keyboard navigable. However, not all screen readers will pick up their text sections, so having a transcript is vital. The transcripts are also simple text-versions of digital content, which can be used by learners with low internet bandwidth or on devices which cannot open and run multiple pages. When transferring an H5P object to a new digital setting, remember to include the transcript, especially in the creation of a new OER, ensuring future accessibility for a wider audience.

The language used in the student-facing sections of this resource is intended to be informal and inclusive. If you integrate text or activities from Key Transferable Skills into your materials, aim for language consistency to maintain a reliable learning experience for students.

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ACCESSIBILITY

Accessibility statement

RMIT University supports the creation of free, open, and accessible educational resources. We are actively committed to increasing the accessibility and usability of the textbooks and support resources we produce.

Accessibility features of the web version of this resource

RMIT's Digital Learning Team strives to meet the WCAG AAA criteria where possible. The web version of this resource has been designed with accessibility in mind and incorporates the following features:

- Designed to consider the needs of people who rely on screen reading technology.
 - ° Content is formatted to work with screen readers.
 - Images have alt tags (unless purely decorative)
 - Transcripts have been developed for infographics and interactive content.

Other file formats available

In addition to the web version, this book is available in a number of file formats, including:

- Print PDF (the format you should select if you plan to make a printed, physical copy of your book. This file meets the requirements of printers and print-on-demand services)
- **Digital PDF** (useful if you want to distribute your book as a digital file, but do not intend to print the file. Digital PDFs are optimised for accessibility, contain hyperlinks for easier navigation, and can be used online)
- **EPUB** (these files can be submitted to any popular ebook distributor and opened by most modern ebook readers. This is the file you'd use to submit your ebook to Kobo, Nook, iBooks, Amazon, and others)
- Common Cartridge with Web Links (this export form allows you to iframe content as an external link into an LMS, like Canvas)
- Various editable files (Look for the 'Download this book' drop-down menu on the landing page to select the file type you want).

Accessibility improvements

While we strive to ensure that this resource is as accessible and

usable as possible, we might not always get it right. We are always looking for ways to make our resources more accessible. If you have problems accessing this resource, please let us know at digital.learning.library@rmit.edu.au so we can fix the issue. [1]

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VERSIONING HISTORY

This page provides a record of edits and changes made to this text from initial publication. Whenever edits or updates are made to the text, we provide a record and description of those changes here. If you have a correction or recommendation you would like to suggest, please contact the Digital Learning Team within the RMIT University Library

at: digital.learning.library@rmit.edu.au

Version	Date	Description	
Early release (preview)	December 2023	Limited version of book published - Reflective Practice Chapter • Reflective thinking and practice • Reflective writing • Reflective practice in context: Art and Design • Reflective practice in context: Business • Reflective practice in context: Education • Reflective practice in context: Health • Educator's notes	
Version 1	January 2024	Addition of the Transferable skills resource collections Digital dexterity collection Higher order thinking collection Interpersonal skills collection	

Version 2	February 2024	Addition of Critical thinking, Problem solving, and Creative thinking chapters and edits to front and back matter. • Critical thinking • Critical analysis • Critical evaluation • Logical fallacies • Creative thinking • Creative thinking: developing skills • Problem solving • Trial and error • The 5 Whys • Working backwards • Mind mapping • Freewriting • Reflecting on problems
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1.1 CRITICAL **THINKING**

"Critical thinking requires us to use our imagination, seeing things from perspectives other than our own and envisioning the likely consequences of our position."

- Bell Hooks

You might have heard phrases like 'critical analysis', 'critical evaluation', and 'critical reflection', but what does 'critical' mean? Sometimes people mistakenly think that 'critical thinking' has a negative meaning - but it shouldn't be confused with being argumentative or criticising other people. Critical thinking skills can be used in exposing fallacies and bad reasoning, but they also play an important role in reasoning, innovation, and many cooperative constructive tasks. These skills allow you to look beneath the surface of an issue, cover all angles, and ask the best questions to find the truth and understand and issue.

Critical thinking is the ability to think clearly and rationally about what to do or what to believe. Critical thinking skills include questioning, analysis, evaluation, inference, reasoning, synthesis of ideas, and open-mindedness. These skills are closely intertwined with problem solving, decision making, reflection, and innovation.

Someone with critical thinking skills is able to do the following:

- understand the logical connections between ideas
- identify, construct and evaluate arguments
- detect inconsistencies and common mistakes in reasoning
- solve problems systematically
- identify the relevance and importance of ideas
- reflect on the justification of their own beliefs and values

Critical thinking is not a matter of accumulating information. A person who has memorised a lot of facts is not necessarily good at critical thinking. A critical thinker is able to seek relevant sources of information, deduce consequences, and make use of information to solve problems.

Thinking critically in everyday life

We all think critically in everyday life, but don't necessarily think of it as being 'critical'. Many things we do throughout the day are part of our routine and don't require much assessment - we do them automatically - but new tasks, experiences, and issues often show up and need more thought, consideration of evidence, and might require us to make a decision and take action.

The cards below contain everyday scenarios in which people would likely use critical thinking skills without even realising they were doing it. Read a scenario, consider what you would do in the situation, then turn the card to see an example before moving on to the next scenario.



An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=37#h5p-45

Transcript

Thinking critically at university

Every university course at every level requires critical thinking and writing. Learning activities are based on the idea that you will be a curious discoverer and consumer of knowledge and that you will use this to develop an understanding of each theory, concept and idea that is a part of your studies.

The biggest difference with pre-university learning is the need to be 'critical'. This could mean many things, but essentially means that you question and find the limits of each idea. It is expected that you will do this in each learning setting, from lectures to the exam room. In the expandable sections below, you can explore how you can become more critical during each part of your learning at university.



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https://rmit.pressbooks.pub/ keytransferableskills/?p=37#h5p-46

Transcript

Building your critical thinking skills

Critical thinking is a cognitive skill, and in the same way that you develop many other skills, there are three main factors involved in learning critical thinking: theory, practice, and attitude. It's not enough just to know the basic principles,

though. Knowing the rules and principles of tennis, for example, isn't enough to become a skilled player, since you might not know how to apply what you know on the court. This requires practice, and the same goes for critical thinking.

However, persistent practice can only bring real progress with the right motivation and attitude. People who dislike challenges or having to find things out for themselves will find it hard to improve their thinking. Self-improvement requires critical and honest reflection about the reasons behind our actions and beliefs. We must be willing to engage in debate, acknowledge our mistakes, break old habits, and deal with challenging concepts.

Critical thinking doesn't always lead you to the easiest conclusion or the answer you want. Sometimes thinking critically and examining biases can be uncomfortable; getting used to this discomfort is part of building your critical thinking skills.

Here are some things you can do to consciously develop your critical thinking skills.

- Learn the principles of critical thinking, like some basic logic and the typical fallacies (flawed arguments) that people make.
- Learn how to intentionally analyse and evaluate information and ideas.
- Question things don't just accept something is correct or true because you want it to be.

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- Try to develop awareness of biases, both those of others and your own. This will help you recognise them when they stand in the way of critical thinking.
- Actively seek out opinions that are different from yours and consider them carefully.
- Use relevant data and evidence to guide decisions. Talk to experts or people who know more than you do about your topic.
- Be honest about the reasons for your decisions.
- Reflect on your decisions and actions both the things that don't work out and the things that do.

Making decisions can be difficult with so much information around us. The TED-Ed video below considers five ways you can use critical thinking skills to deal with problems.



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Asking the right questions is a key element of critical thinking, and it's nothing new! In this short TED-Ed video, explore the technique known as the Socratic Method, which uses questions to examine a person's values, principles, and beliefs, and deepen their understanding.

Before you watch the video below, consider this question: How can the action of questioning be helpful even if it doesn't provide a definitive answer?



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Reflect

Think about your answers to these questions independently or discuss them with a classmate.

- Can you think of any examples of times when you've used your critical thinking skills in everyday life?
 - What about when doing research or answering questions in class?
- What do you think would happen to society if nobody had critical thinking skills?
- What are the dangers of looking at a situation from only one perspective?
- Can you think of a time when misinformation impacted a decision you made? Why did that

misinformation exist?

• Which areas of your critical thinking practice do you think need the most improvement? (e.g. I sometimes jump to conclusions, I don't always look for a second source before believing content I read online, I don't always look at situations from multiple perspectives, I've been known to make reckless decisions without evaluating the situation first...)

This resource has multiple pages dedicated to helping you become a strong critical thinker in your everyday life, at university, and in your career. In this chapter, you'll find information on critical analysis, critical evaluation, and logical fallacies.

To further enhance your critical thinking skills, visit the chapter on reflective thinking and practice to learn more about how reflection can be applied in academic writing, and across disciplines like art and design, business, education, and health.

Sources and attributions

Lau, J.Y.F. (2011). Introduction. In An Introduction to

Critical Thinking and Creativity, J.Y.F. Lau (Ed.). https://doi.org/10.1002/9781118033449.ch1, pp. 1-9

TED-Ed video: 5 Tips to Improve Your Critical Thinking by Samantha Agoos, embedded from YouTube, unless otherwise indicated TED-Ed talks are licensed under CC BY-NC-ND 4.0.

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1.1 EDUCATOR'S NOTES

Learning Objectives

After completing Critical thinking, Critical analysis, Critical evaluation, and Logical fallacies, learners should be able to:

- 1. Describe the concepts of critical thinking, analytical thinking, critical evaluation, and flawed arguments and discuss their relevance in everyday life, learning, and the workplace.
- 2. Demonstrate an understanding of how these concepts are relevant to their own academic or professional discipline.
- 3. Apply reflective practices to assess personal critical thinking skills and

- demonstrate an awareness of how they might use these skills in their field.
- Explain the use of the CRAAP model and apply the criteria to assess the reliability of a source.
- 5. Demonstrate an understanding of fake news and how to distinguish it from credible information.
- Explain how critical thinking skills contribute to effective problem solving and decision-making.
- 7. Explain the role of analytical thinking and evaluation in assessing information and making informed judgements.
- Define the concept of logical fallacies, and name six fallacies and describe their characteristics.
- Demonstrate knowledge of strategies and language that can be used to challenge and respond to logical fallacies in various contexts.

Using this content

There is no prescriptive method of how to use this content in your teaching. How you include it in your delivery will depend on many factors, including your classroom environment and how much prior knowledge your students have of reflective practice.

Things you can do with this content:

- Use the questions in the Reflect boxes to guide discussions on critical thinking.
- Create tailored lessons teaching critical thinking, critical analysis, critical evaluation, and logical fallacies by selecting relevant information and activities and combining it on your own platform.
- Use the analysis and evaluation examples in the chapter as models to scaffold your students' work by looking at them together in class or asking students to review them outside of class.
- Include a link to this chapter as a support resource for students doing assessment tasks which require critical analysis and/or evaluation skills.
- Enhance your students' understanding of critical thinking within their specific field by using the examples, case studies, and scenarios as supplementary material.
- Use the industry-focused examples and scenarios to

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inform and motivate students who might not fully appreciate that critical thinking skills are crucial capabilities, not just something they do for assessment.

For more ideas, check out the general suggestions in the Educator's guide in the Front Matter.

Integration, accessibility, and inclusion

Please read the sections on integration and accessibility in the Educator's guide. This is where you will find information on the practicalities and best practices of taking, adapting, and using this open educational content, such as importing it into your LMS, downloading .h5p files, attributing and adding the correct licensing information, and ensuring the content is accessible and inclusive.

Resources

The content in this chapter was developed through the adaptation of selected Open Educational Resources (OERs) and the creation of original content.

In cases where content is not an OER or licensing is unclear, the original source has been linked and/or clearly sourced. This is the case for the embedded YouTube videos.

Pages that do not list OER attributions contain only original content unless otherwise referenced.

This resource list also includes academic sources which helped inform the adapted OERs or original content.

Critical thinking

A Miniguide to Critical Thinking by Dr. Joe Y.F. Lau, University of Hong Kong, licensed under CC BY-NC-SA. (OER)

Critical Thinking Web, Tutorial: What is critical thinking? website maintained by Dr Joe Lau, University of Hong Kong, licensed under CC BY-NC-SA. (OER)

Critical thinking: Criticality in the learning cycle by University of York, licensed under CC BY-NC-SA (OER)

Lau, J.Y.F. (2011). Introduction. In An Introduction to Critical Thinking and Creativity, J.Y.F. Lau (Ed.). https://doi.org/10.1002/9781118033449.ch1, pp. 1-9 (Source)

TED-Ed video: 5 Tips to Improve Your Critical Thinking by Samantha Agoos, embedded from YouTube, unless otherwise indicated TED-Ed talks are licensed under CC BY-NC-ND 4.0. (Video)

TED-ED video: This tool will help improve your critical thinking by Eric Wilberding, embedded from YouTube, unless otherwise indicated TED-ED talks are licenses under CC BY-NC-ND 4.0. (Video)

Critical analysis

Analytical Thinking by OpenStax (original) and Kristin Conlin, licensed under a CC BY-NC-SA 4.0 (OER)

Argument analysis, RMIT Learning Lab (Linked external resource)

Critical evaluation

How to spot fake news – infographic by International Federation of Library Associations and Institutions (2020) licensed under CC BY 4.0 (OER)

Study Smart: information research and literacy skills – Evaluate your sources by QUT licensed under CC BY-NC-SA 4.0 (OER)

Fundamentals of Business Communication Revised (2022): 10.4 Evaluating Sources by Venecia Williams & Nia Sonja licensed under a CC BY-SA, except where otherwise noted. (OER)

Choosing valid sources, RMIT Learning Lab (Linked external resource)

Bad News, Cambridge Social Decision-Making Lab (Linked external resource – game)

Logical fallacies

Introduction to College Composition (Lumen) by Lumen Learning licensed under CC BY-NC-SA 4.0 (OER)

Communication for Business Professionals by eCampusOntario licensed under CC BY-NC-SA 4.0 (OER)

5.7: Finding and Refuting Logical Fallacies by Gabriel Winer, Berkeley City College & Laney College licensed under CC BY-NC 4.0 (OER)

Thou shall not commit logical fallacies, The School of Thought (Linked external resource)

Logical fallacies tutorials, RMIT Learning Lab (Linked external resource)

You can find additional Open Educational Resources on critical thinking in the Higher order thinking resource collection.

1.2 CREATIVE **THINKING**

"Everybody has a creative potential and from the moment you can express this creative potential, you can start changing the world."

- Paulo Coelho

Reflect

- Who is the most creative person you know? Why have you chosen them?
- Do you consider yourself a 'creative' person? Why? Why not?
- How would you define creative thinking?

What is creative thinking?

You might be surprised to know that everyone has creative abilities: it's true of everyone who fully expresses creative abilities, as well as those who express them very little or not at all. All humans are innately creative, especially if creativity is understood as a problem-solving skill.

Creativity is inspired when there is a problem to solve. For example, when a sculptor creates an amazing sculpture, it's an act of problem-solving: perhaps they must determine which artistic style to use in order to create the likeness of an object, or perhaps they're deciding which tools will most suit their purpose or style. In every case, the problem sparks the sculptor's creativity. But you don't necessarily need to 'create' something, like a sculpture, to use and benefit from creative thinking.

Creative thinking, a higher order thinking skill, is a close companion of critical thinking: both are crucial for solving problems and discovering new knowledge. It's the ability to look at something from a different perspective and come up with a unique solution.

Considered as an act of problem-solving, creative thinking can

be understood as askill—as opposed to an inborn talent or natural 'gift'—that can be taught as well as learned. Problemsolving is something we are called upon to do every day, from performing mundane chores to executing sophisticated projects. The good news is that we can always improve upon our problem-solving and creative-thinking skills—even if we don't consider ourselves to be artists or 'creative'.

Why is creative thinking important?

When people talk about important skills for life, study, and work, creative thinking is sometimes overshadowed by critical thinking. However, creative thinking and critical thinking go hand in hand, and human progress relies heavily on both sets of skills

Critical thinking helps us examine situations and identify problems, while creative thinking drives idea generation, exploring solutions, and innovation. Creative thinking makes entrepreneurship possible and it's vital to our personal growth and adaptability.

Read about these major benefits in more detail below.

Problem solving

Creative thinking enhances your problem-solving abilities by helping you approach challenges and situations from different angles. This can help you find solutions that might

not be immediately apparent even to experts in a field because they're so accustomed to doing things in a particular way.

Innovation

Creative thinking was a crucial part of the development of all the innovations we benefit from today, from reading glasses to media streaming services. Creativity is what drives innovation. Creativity is the thought process, and innovation is the action of turning those creative ideas into tangible outcomes.

Entrepreneurship

To figure out where there are gaps in the market and to fulfil a need that is not being met, entrepreneurs need to first use their critical thinking skills to analyse and evaluate the market, and then their creative thinking skills to solve those problems and come up with ways to engage the customers.

Personal growth

The more you use your creative thinking, the stronger your skills become. Knowing you can create things, and/or come up with unique ideas and solutions, gives you confidence in your ability to adapt to new situations and deal with whatever comes up.

A (dystopian) world without creative thinking...

Can you imagine it?

Life would be monotonous as we carried out our daily routines – it would likely be a stagnant and repetitive existence. Without the ability to innovate through creative thinking, industries would struggle to address complex issues and create new products. Problem solving would be formulaic, and any problem that couldn't be solved through these conventional formulas would remain unsolved

People would be less able to adapt to new situations and would no longer express their individuality through creative means. Without creativity, there would be less beauty in the world in the form of artistic and cultural expression – we wouldn't have the art, music, books, or shows that we enjoy today.

Luckily, this is just hypothetical, and humanity *does* have the critical thinking skills necessary to come up with solutions to day-to-day problems, create beautiful and functional things, and tackle the larger, pressing issues that the world faces.

Creative thinking in careers

It's highly likely that you will be required to use your creative thinking skills in your future career. Employers value creative thinking skills and employees who can solve problems and innovate are always in demand.

According to The World Economic Forum's 2023 The Future of Jobs Report, approximately 73% of companies surveyed highlighted creative thinking as an increasingly important skill in their industry. Employers reported that creative thinking and analytical thinking (related cognitive skills), are their top priorities for hiring and upskilling employees between 2023 and 2027 (The World Economic Forum, 2023).

Move through the slideshow below to learn a bit about the role of creative thinking in three different industries: education, health, and engineering.



An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=41#h5p-52

Transcript

Reflect

What does creativity mean to you in the context of your academic or professional discipline?

How do you currently approach problemsolving and idea generation within your field of study?

How do you think creative thinking and innovation might be important in these roles?

Advertising executive

Example: An advertising executive needs to use creative thinking to come up with new campaign concepts that will capture people's attention. If they just copy their company's past campaigns, their brand won't stand out and their advertisements will be uninspiring.

- Architect
- Content creator
- Criminal investigators
- Economist
- Marketing assistant
- Sustainability advisor

- Urban planner
- Videogame designer

Now that you know what creative thinking is and why it's important, explore the following pages on developing your creative thinking skills and using creative thinking when you do group work.

Content in the 'What is creative thinking' section of this page has been adapted from:

- Critical thinking web: Creativity by Joe Lau & Johnathan Chan, licensed under CC BY-NC-SA
- College Success by Lumen Learning, licensed under CC BY (Original: Creative Thinking Skills by Linda Bruce, Lumen Learning, licensed under CC BY).

Sources

Quote: Coelho, P. (2008, October 13). Just A Minute With: Paulo Coelho on digital media. *Reuters*. https://www.reuters.com/article/idUSLD241495/

World Economic Forum. (2023). The Future of Jobs Report 2023. Retrieved from https://www.weforum.org/ publications/the-future-of-jobs-report-2023/.

1.3 PROBLEM **SOLVING**

Problems come up in all aspects of life: work, study, relationships, etc. Problems can range from inconveniences like misplacing your keys, to more critical issues such as dealing with time-sensitive emergencies in the workplace. Different problems require different solutions that's why understanding problem-solving skills and strategies can help you face difficult situations as they appear.

> "A problem well stated is a problem half solved" - Charles Kettering "Life is a continuous exercise in creative problem solving" - Michael J. Gelb "No problem can withstand the assault of sustained thinking" - Voltaire

Reflect

- What do you think these quotes mean? How would you express these ideas in your own words?
- What do you think about these quotes? Do you agree with them? Why? Why not?
- Can you think of a time when you successfully solved a problem? What steps did you take to solve the problem?
- What skills do you think people need to engage to solve problems?

What is problem solving?

Problem-solving may seem straightforward at first – it's finding a solution to a problem, right? But are you aware of all the **higher-order thinking skills** that come into play when someone is solving a problem?

To begin, someone might **critically analyse** and **evaluate** the situation to identify the problem. Then, use **reflective thinking** to figure out why the problem occurred and how it can be resolved or prevented from happening again. They'll

look at the problem from different angles and recognise any biases that may have influenced the situation or could impact the solution.

Next, they could use strategies and creative thinking to generate potential solutions. Usinglogic and reasoning, they'll decide which solution should be implemented and tested.

Finally, they should reflect on their problem-solving process and save their insights for future use.

Why is it important to develop problem-solving skills?

When you understand how many higher-order thinking skills go into solving problems, it's clear to see why it's such a highly valued skill. Intentionally building your problem-solving capabilities will help you grow personally and professionally.

People with good problem-solving skills:

- can make confident decisions in life and at work
- build resilience and can recover from setbacks because they believe in their ability to solve future problems
- are adaptable and able to see challenges as opportunities not roadblocks
- are more successful in their careers they are attractive employees because they can work independently and progress in their roles, and can be trusted to handle

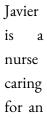
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challenging situations

- can think creatively and innovate they're great entrepreneurs
- can collaborate with others and enhance the work environment by focusing on solving problems rather than dwelling on them
- have better personal relationships because they can use their problem-solving skills for conflict resolution
- can save themselves and their employers lots of money by addressing financial problems early
- make responsible health and wellbeing decisions and address lifestyle problems.

Problem-solving skills are important across all disciplines and work areas. Check out the scenarios below to see how professionals in two different industries use problem-solving skills to manage situations that have come up in their jobs.

A nursing problem: patient care







elderly patient called Moe. Moe is not adhering to his complex medication regimen, even though Javier has gone over it with him multiple times. Javier is frustrated and Moe is upset. It is important for his health that Moe takes the correct medications at the right times.

- What reasons can you think of for why Moe might not be adhering to his medication regimen?
- Can you think of some steps Javier could take to solve this problem?

Expand the section below to see what Javier does.



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can view it online here:

https://rmit.pressbooks.pub/

keytransferableskills/?p=39#h5p-37

Transcript

A business problem: delays and dissatisfaction





StillWaiting82

It's been three weeks and my order still hasn't been shipped!

Yu works for a manufacturing company that is receiving many negative online reviews from customers due to delays in production. She's been tasked with solving this problem and preventing more negative reviews.



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can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=39#h5p-38

Transcript

Problem-solving strategies

When you're presented with a problem—whether it is a complex mathematical problem or a broken printer, how do you solve it?

Before finding a solution to the problem, the problem should first be clearly identified through gathering information and gaining a thorough understanding of the issue at hand. After that, one of many problem-solving strategies can be applied, hopefully resulting in a solution.

A problem-solving strategy is a plan of action used to find a solution. Different strategies have different action plans associated with them. For example, a well-known strategy is trial and error. The old adage, "If at first you don't succeed, try, try again" describes this strategy. The following pages in this chapter explore trial and error and other strategies and approaches for solving problems. Understanding and implementing these strategies will help you manage the problems that come your way.

Reflect

How do you usually approach problem solving?

• Do you know or use any specific problemsolving strategies?

This page includes content adapted from "7.3 Problem-solving" by OpenStax College licensed under CC BY 4.0

TRIAL AND ERROR

Imagine that you wake up in the morning, turn on your computer to do some study, and then discover your Wi-Fi isn't working. First, you run a diagnostic test on your computer, but it doesn't uncover anything. Next, you restart your computer, and still no luck. Lastly, you reboot your modem router, and... success!

The process you have just used is called trial and error, and it can be used to solve small problems like the one you had with your Wi-Fi. It can also be a powerful method in controlled situations for scientific breakthroughs, inventions, and developing new products. The idea is that you keep trying different approaches until you find one that works. The benefit of trial and error is that it allows you to test certain ideas (or hypotheses) to see if they are an effective solution to a problem. You can then take what you've learnt from your trials (and errors) and use it to make adjustments and to guide your next moves.

The downsides are that it can take time to conduct these trials, and this technique can't be used in all situations. In some cases, a simple error could lead to disaster. For example, if you work as a bomb disposal expert and you need to disarm an

explosive, cutting wires until you find the right one probably wouldn't be a good idea!

Reflect

- Can you think of another example of a situation in which it would **not** be a good idea to use trial and error?
- What about a situation in which trial and error would be a good strategy to use?

Answer the following questions to identify in which situations trial and error would be a good problem-solving technique to use.



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https://rmit.pressbooks.pub/ keytransferableskills/?p=1307#h5p-35

Transcript

THE 5 WHYS

Background: This technique was developed in the 1930s by the founder of Toyota, Sakichi Toyoda. He noticed that the same problems kept arising with the machinery in his factory, and he discovered that by continuing to ask the question 'why?', he could find the root cause of a problem, rather than just finding a temporary solution.

How do I use the 5 Whys?

- 1. Write down the problem you are trying to address.
- 2. Ask yourself why the problem occurs and write down your answer.
- Repeat the first two steps and continue until you have identified what you believe to be the root cause of the problem.
- 4. You can aim to ask at least five 'whys', but when asking why produces no more useful responses you've reached the root cause.

An example of the 5 Whys from the manufacturing industry might look something like this:

Problem: We couldn't finish today's production because a machine broke down.

Why did the machine break down?

Because it overheated.

Why did it overheat?

Because there was insufficient lubrication on the bearings.

Why was there insufficient lubrication on the bearings?

Because the oil pump that injects the lubricant was blocked.

Why was the oil pump blocked?

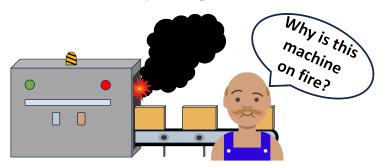
Because it was filled with metal shavings.

Why was it filled with metal shavings?

Because the filtration system was malfunctioning and needed replacing.

Solution: replace the filtration system.

This example shows us that if we only provide a solution for the first or second 'why', the problem will just come up again. However, if we continue to ask 'why', we can come to the root cause of the problem. If we provide a solution to *that* problem, then it's much more likely to be a permanent solution.



How the 5 Whys can be used in other situations:

Let's observe how the 5 Whys can be used in a range of scenarios.

We'll start with Miguel, who has just finished a Bachelor of Applied Science (Medical Radiations). He's applied for a number of jobs as a radiographer in the last month but hasn't had any luck. He's decided to use the 5 Whys problem-solving technique to help him develop a better answer to a common interview question.



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can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=1299#h5p-29

Transcript

Ari's partner has just broken up with him. His relationships always seem to end after a few months, and he'd like to prevent future heartache. He's decided to use the 5 Whys to figure out the root cause of his relationship failures.



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https://rmit.pressbooks.pub/ keytransferableskills/?p=1299#h5p-30

Transcript

Jacinta has been working on a group assignment at uni. So far, she's had some conflict with another group member, Juma, who thinks that Jacinta isn't doing her fair share of the work. Jacinta wants to find the root cause of the problem so that the group can get back on track and complete the assignment successfully.



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can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=1299#h5p-31

Transcript

Reflect

- Can you think of a time when you initially only addressed the symptoms of a problem without trying to discover the root cause?
 What did you learn from that experience?
- The 5 Whys strategy isn't only useful for solving problems, it's also helpful when you're setting goals and making future decisions.
 How could you use this strategy to help you plan your career?

Imagine that a good friend tells you that they've been in a 'bad mood' all week, how might your conversation go if you use the 5 Whys to figure out the cause of their low spirits?

Read one possible scenario below to get some ideas, and then come up with your own, starting with the question: Why do you think you're in a bad mood?

"Why do you think you're in a bad mood?"

"I don't know! Everyone is annoying me, and I have no patience at all."

"Why do you think you feel that way?"

"Probably because I'm so tired."

"Why are you tired?"

"I haven't been sleeping well lately."

"Why not?"

"I keep waking up all the time because it's too hot in my room."

"Why is it so hot in your room?"

"Well, it's summer and my air-conditioner is broken! How many more questions are you going to ask me?!"

A-ha! You don't need to ask them any more questions – your grumpy friend hasn't been sleeping well, and it seems that the solution is for them to get their air-conditioner fixed.

Different approaches are needed for different types of problems. Now that you know how to use the 5 Whys, learn about the working backwards technique and how to visualise the parts of a problem using a mind map.

This page includes content adapted from Tools & Templates: Five Whys by the Strategy Unit licensed under CC BY-NC-ND 4.0

WORKING BACKWARDS

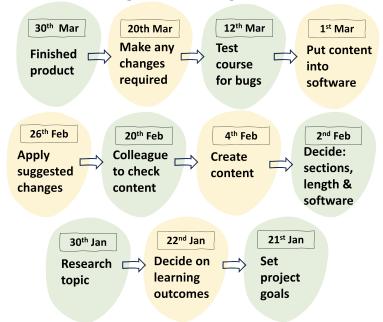
For problems where you need to create a timeline, meet a deadline, or understand the steps needed to complete a task, working backwards can be a great problem-solving process. To do this, imagine that the task has already been completed or the problem has already been solved with a satisfactory outcome, and work backwards to see what steps were taken to reach that result and when those steps needed to be completed by. Check out the example below to see how this technique works.

The working backwards technique in action

Ruth works in the admin department at a hospital and has just been given an important project to work on. They've recently started using a new computer system for the storage of medical files at the hospital, and Ruth needs to develop a training course to teach employees how to use the new system.

To help her plan what steps she needs to take to complete the project, Ruth decides to use the working backwards technique. First, she imagines the course in its completed form. She thinks about what information staff members need to learn and how it would need to function for it to be an effective training tool.

Now, Ruth works backwards to think about the steps that need to be taken to get the course to the completed form that she's imagined. She also assigns a due date to each of these tasks to help keep the project on track. She does this by taking the deadline she has been given by her boss and working backwards. Here's the plan she comes up with:



Transcript

Ruth has worked backwards to figure out how much time she can spend on each step. She now has a clear plan of the steps she will take to complete the project, which she can use to measure her progress along the way. Without a plan like this, Ruth might spend too much time on one step, and not be able to complete another important task, like testing the course for bugs, before handing over the finished product.

another example of how the working Here's backwards technique can be used:



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https://rmit.pressbooks.pub/ keytransferableskills/?p=1301#h5p-32

Transcript

Reflect

- Do you like to plan things out ahead of time? Why? Why not?
- Have you ever used the working backwards technique to solve a problem or plan something in your personal life? How did it go?
 - For example, working out a budget to

save for something or planning a social event.

Think about your particular discipline or area of professional interest — what kind of problems or tasks arise in your area that the working backwards approach could help solve?

> • For example, in the area of business sustainability, the problem could be product packaging that is damaging to the environment. A Sustainability Manager who is tasked with reducing the impact of a company's product packaging would first envision the end goal of packaging with minimal environmental impact, then they'd use the working backwards strategy to develop a plan with all the steps in between. These steps could be things like designing a sustainable packaging strategy, sourcing ecofriendly materials, and implementing changes in the manufacturing line.

MIND MAPPING

Are you a visual person who likes to see how different concepts connect to each other? Mind mapping can be a great way for you to visualise the different parts of problems and work through them.

Mind maps can be used for everything from organising study notes and essay content to planning holidays and events, and they're an engaging way to present information to others in your classes or at work.

But how can mind maps help you solve problems? When faced with a problem, many of us feel overwhelmed and don't know how to begin solving it. Creating a mind map can help organise your thoughts and separate the parts of a problem, so you can analyse and understand them better. Creating a mind map to solve a problem is also a low-risk way to brainstorm potential solutions and spark your creativity.

How to do it

Mind mapping can be done with a pen and paper or digitally; there are many apps that can be used for free. You can approach map creation in a variety of ways, but here is one technique to help you get started.

Scenario: Imagine that you are studying a Bachelor of Psychology and you have been asked to write an essay exploring the benefits of Cognitive Behavioural Therapy. The problem is, you have a lot of ideas, and you're not sure how to start your essay. You've decided to create a mind map to organise your ideas and plan out your essay. Check out the example below to see how this could be done:



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https://rmit.pressbooks.pub/ keytransferableskills/?p=1303#h5p-33

Transcript

What if you're dealing with a real-life problem and not an essay topic? Like a debt you want to pay off, or a communication breakdown between colleagues? Mind mapping can help you here too. Start with the problem in the centre. Your branching topics will depend on the problem you're dealing with and which stage of the process you're at, but they could include things like: causes, tests, possible solutions, action plan, and goals.

Here is an example:

Cara doesn't like public speaking. In fact, it makes her feel very anxious — but it's a significant part of the career she wants to pursue. She knows she needs to reflect on the problem and analyse its causes, but thinking about it without a



structure is stressful. She decides to make a mind map to help her visualise the problem, its causes, and possible solutions.



Cara's template for her mind map has the problem she wants to solve in the centre, and arrows pointing to the topics she'll add notes to. Analysing the causes,

triggers, and reactions will help her understand the problem, while recording strategies, support systems, and previous successes will help her generate possible solutions, goals, and an action plan.

- What kinds of branching categories do you think could go on a mind map focusing on solving a personal financial problem or a communication breakdown between colleagues?
- Have you ever created a mind map with another person or a group? Why do you think mind mapping is often considered an effective method for collaborative problem solving?
- Creating a mind map and using it to organise your thoughts is a highly transferable skill you can use it for planning essays, personal concerns, and to break down complicated work issues. How might you be able to use mind mapping as a strategy in your future career?

For more tips, check out the Learning Lab's Mind Mapping page and Mind mapping an artist statement.

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FREEWRITING

Freewriting is a way to come up with ideas by removing aspects of writing and ideation which might block creativity. Because it encourages free-flowing ideas and doesn't give you time to dwell on barriers, freewriting is a good method to use to come up with potential solutions to problems.

How to start freewriting

It's a good idea to find a quiet place where you won't be disturbed. You'll need a pen and paper, or you could use a document on your computer, whichever you prefer.

Most versions involve starting with a word or phrase (usually your topic) and writing about it without stopping for five minutes. It's helpful to set a timer for each round of freewriting. After the first five-minute period you examine what you have written, looking for any phrases or words that seem interesting to you. Circle them (or if you are typing: highlight, italicise, put in bold, or underline them) to make them stand out.

In the second round, free-write for another five uninterrupted minutes on your choice of the most interesting word or phrase from your first freewriting.

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A third round can help you narrow the topic even further if necessary. For each round of freewriting, don't worry about your spelling, grammar, or how it would look to an outside audience. It only has to make sense to you. Freewriting is all about idea generation and exploration.

Here's an example:

As part of a business management course, a student has been working on a scenario-based project to fix the many problems of a hypothetical company. One of the company's largest problems is the employees' low levels of motivation. The first assessment is to write an essay on what motivates employees in the workplace, which will help the student get a better idea of why this problem has occurred and how it could be solved. They decide to do a freewriting session to gather the ideas they already have on the topic. Check it out below:



An interactive H5P element has been excluded from this version of the text. You

can view it online here: https://rmit.pressbooks.pub/ keytransferableskills/?p=1305#h5p-34

Transcript

Reflect

How do you think you could use freewriting in your professional discipline to generate ideas and solve problems?

For example:

- A teacher whose students are showing low motivation could use freewriting to come up with innovative activities to engage them.
- A marketing professional working for a company with no online presence could use freewriting to come up with content ideas for the company's new social media accounts.

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REFLECTING ON PROBLEMS

Reflect

- Which of the strategies covered in this chapter have you used before?
 - Trial and error
 - The 5 Whys
 - Working backwards
 - Mind mapping
 - Freewriting
- Which of the strategies do you think you will try next time you're faced with a problem?
- · Why do you think it is useful to reflect on how you tried to solve a problem and the outcome?

Reflection allows you to delve deeper into the problem, gaining a better understanding of its various aspects, causes, and potential solutions. This deeper understanding can lead to more effective problem-solving. Not only does reflecting on problems help us solve them, but reflecting on the steps we took to solve a problem and whether or not we were successful makes tackling issues much easier the next time they arise. It also gives us more confidence in our ability to deal with future problems.

Whichever strategy you employ to solve a problem, it's a good idea to take some time to reflect on how things turned out and whether the problem-solving strategy you used was the right one.

For example:

Yu is trying to improve customer ratings. She's used the trial-and-error strategy, but so far nothing has worked satisfactorily. She reflects on her approach and thinks carefully about why the 'trials' haven't been

Boosting customer ratings

X Discounts

X 2 For 1

New website



successful. She realises that her solutions haven't addressed the root of the problem. Yu decides to use the 5 Whys strategy instead, to find the cause and fix it. If she hadn't reflected on her problem-solving process, she would have continued coming up with surface-level solutions.

Consider these questions when reflecting on a problem and your problem-solving process:

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- What worked and what didn't?
- What would you do the same and what you would change if you had your time over?
- How will these insights help you in the future?

Let's practise doing a reflection together



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Transcript

If you'd like to learn more about reflective thinking in your studies, everyday life, and work, check out the Reflective thinking and practice chapter.

Having explored this chapter, you're now on your way to becoming an expert troubleshooter. As we've seen in this chapter, there are all sorts of problems, and luckily there are also many problem-solving strategies. Being able to choose the right strategy or technique to solve a problem is a useful skill for many situations in life and across all disciplines.

1.4 REFLECTIVE THINKING AND **PRACTICE**

The ability to reflect is essential in everyday life, education, and in the workplace. Reflective thinking involves taking a moment to look back and consider our experiences, thoughts, and actions. When we use reflective thinking intentionally, to learn from our challenges and successes, it becomes reflective practice - which gives us the tools to become more aware of ourselves and others, develop personally and professionally, solve problems, and make more effective decisions.

This resource will guide you through the basics of reflective thinking and reflective practice.

Reflective thinking in everyday life

You probably use your reflective thinking skills all the time without even realising it! Reflection is something that we do every day as part of being human. We plan and undertake actions, then think about whether each one was successful or not, and how we might improve next time. We can also feel reflection as emotions, such as satisfaction and regret, or as a need to talk to friends about things that have happened.

The cards below offer some examples of common experiences and habits that lead to reflective thinking in everyday life. You've probably experienced some of them before!

Select 'turn' to see how each situation can lead to reflective thinking.



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Transcript

What is reflective practice?

Reflective practice is the ability to reflect on one's actions so as to engage in a process of continuous learning.

- Donald Schon

Just like in the examples above, you reflect on things and make

changes all the time without giving it too much thought. This works for things like missing the train and burning your toast, but larger issues like consistently missing the mark on important assessments, or challenges that come up in the workplace, may require a more conscious approach to reflection and change.

Reflective practice first developed in disciplines such as teaching, medicine, and social work as a way to learn from real life experiences. People in these areas would think about encounters with their students, patients or clients, and what lessons they could take away from them. Over time many other areas have adopted the principles of reflective practice — including universities. You might use reflective practice during your studies, practical placement or work-integrated learning, as part of a portfolio as well as in your career and personal life.

Reflective practice is a process of **intentionally** thinking deeply about experiences with a view to learning from them. The reflective process often involves noting or recording our observations and asking ourselves questions about our feelings and responses to experiences. This process enables us to gain new understandings of why things have happened in certain ways, why people have responded in particular ways, how challenges can be overcome, or how successes could be repeated. The insights you gain through reflective practice may result in a change of behaviour, perspective or action.

Models of reflection

If you are not used to being reflective, it can be hard to know where to start the process. Luckily, there are many models which you can use to guide your reflection.

Move through the presentation below to see four of the most popular models of reflection.



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Transcript

You will notice many common themes in these models and any others that you come across. Each model takes a slightly different approach, but they all cover similar stages. The main difference is the number of steps included and how in-depth their creators have chosen to be. Different people will be drawn to different models depending on their preferences and discipline.

Reflect

Think about the models outlined in the presentation above.

- What do you think are the advantages of using a model when you reflect?
- Do you find models in general helpful or are they too restrictive?
- Do any of them appeal to you or have you found another model which works for you?

These are just some of the reflective models that are available. You may find one that works for you or you may decide that none of them really suit. They provide a useful guide or place to start - but reflection is a personal process, and everyone will work towards it in a different way.

Developing reflective practice

Now that you know what it is, you might be wondering how you can start developing your own reflective practice. It involves intentionally cultivating the habit of reflection, and then using it as a tool for growth. How you use reflective

practice is a personal journey, and may also depend on the area you study and work in. It can take time to develop the habit of intentional reflection and see tangible results, but the key is to be consistent and to stay focused on your development.

Here are some steps to help you get started. Select the '+' symbol to learn more about each step.



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Transcript

Great! Now you know what reflective thinking and reflective practice are - the next step is to enhance your skills in these areas and see how they can be used in the context of your discipline. Continue through this chapter to learn about reflective writing, and how reflective practice is applied practically in different academic disciplines and professions.

¹ This chapter includes content adapted from "Reflective

Writing" by University of York Library licensed under CC BY-SA 3.0

 2 This chapter includes content adapted from "Reflective Practice Toolkit " by Cambridge University Libraries licensed under CC BY-SA 4.0

REFLECTIVE WRITING

What is reflective writing?

Reflective writing is the process of putting your intentional reflective thinking into text and documenting the thinking and learning that has taken place. It also involves reflecting on an experience, interpreting and evaluating what happened, and planning how the lessons you've learnt can be applied in the future. Reflective writing might be for a wide audience, a specific reader, or undertaken as a personal activity.

Why is reflective writing important?

Reflective writing isn't just venting your feelings, or something that needs to be done for the sake of paperwork or assessment. It also helps develop your critical thinking and metacognitive skills, giving you a lot more control over your own learning and professional development. These are skills which improve the more you put them into practice, so working on your reflective writing skills is an investment in your present and future self.

Reflective writing tasks help you work through the reflective process, and the documents you create through this process are

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evidence that reflection has occurred. They demonstrate the knowledge you have gained and how you have done so to the reader, who might be your university tutor, your professional mentor, or your present or future employer. It shows them that you are able to reflect, analyse, and come to relevant and logical conclusions based on your experience. Reflective writing documents your conscious improvement and awareness of your strengths and weaknesses and how that affects your personal, academic and professional life. It can provide rich evidence that you no longer need study or guidance to continue improving in your field and that you are ready to move on to a new challenge or opportunity.

Reflect

You have probably already done some form of reflective writing; it could have been for your studies, your job, or just your personal learning or enjoyment. Can you think of anything you've written that involved describing events, interpreting, and evaluating them?

- What type of text was it?
- Why did you write the text?
- Did anyone read it? Who?

 Was it helpful? Did you learn anything from it?

Where might you use reflective writing?

Now have a look through the slideshow to see some different types of reflective tasks and read about how they are used.



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can view it online here:

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Transcript

Characteristics of reflective academic writing

As you have seen, there are many forms of reflective writing,

and the type of reflective writing you do will usually depend on why you're writing it, your intended audience, and your discipline or profession. In higher education, reflective writing coursework and assessments vary in content across multiple disciplines, but most share some common characteristics.

Language and structure

Academic reflective writing is almost always written in the first person. As it's for an academic audience, the language should be formal or semi-formal and you should use key terminology and vocabulary from the related discipline (e.g., the language you use for a reflection related to teaching practice, will be different to a scientific research reflection).

The text should be in logical paragraphs and generally follows a set structure with three main parts:

- a description of the experience and the writer's thoughts and feelings (describe)
- the reflection on the experience interpreting why the writer felt or acted a particular way (interpret and evaluate)
- the result of the experience the writer's plans based on the experience and what they have learnt (plan).

The DIEP model is one example of a structure you can use to

organise a reflective writing task. This model requires you to **Describe** (what happened? what did you learn?), **Interpret** (what does the experience mean? why?), **Evaluate** (how valuable was the learning experience?) and **Plan** (how will you apply your learning?). Find out more about the DIEP model on RMIT's Learning Lab

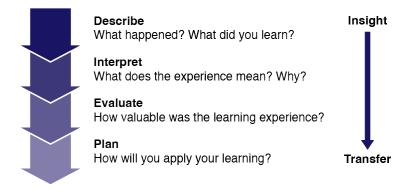


Image from RMIT Library's Learning Lab

Content

Although the subject of a written reflection will change across disciplines, the expectations of the content will remain the same:

- it should express the writer's personal experiences, thoughts, and feelings, but show objective reasoning when reflecting on the event.
- the descriptions of events and experiences should be

- succinct, with a greater focus on the why and how of the experience.
- the reflection should demonstrate how the writer has learnt from what happened and how it will inform their future practice.

Task

Reflective writing tasks for coursework or assessment will generally read by an educator. Tasks that are graded will have instructions and criteria explaining what should be included. This gives the writer a clear idea of how they will be graded and what they need to focus on.

Academic reflections often require the writer to connect personal experiences to academic theory studied in class, and to cite sources to give credibility. If you have used academic sources, you'll need to include references, but you don't need to reference your own thoughts and opinions.

Useful language for reflective writing

When doing academic reflective writing, it's crucial for the reader to be able to follow your thought process easily. That's why using language that effectively communicates your ideas is so important. Take a look at the expandable sections below

to see specific types of vocabulary and sentence structures that can be useful when writing reflectively.



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Transcript

For a useful overview of reflective thinking and reflective writing, check out this video from the University of Hull:



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https://rmit.pressbooks.pub/ keytransferableskills/?p=49#oembed-1

Now that you have an understanding of reflective thinking and writing, it's time to see how these skills are used in specific contexts. The following pages contain information on how

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reflective practice is used in education, healthcare, business, and design.

REFLECTIVE PRACTICE IN CONTEXT: ART AND DESIGN

"It's on the strength of observation and reflection that one finds a way. So, we must dig and delve unceasingly."

– Claude Monet

What is reflective practice in art and design?

Reflective practice is integral to your learning and development in art and design. It's the process of thinking deeply about an experience or piece of work and critically reflecting on it to gain insights into what you've learnt and how it can help you make future decisions.

You may have already started your reflective practice

without being aware of it, by keeping a personal journal, a commonplace book, or an art diary. Doing reflective activities at uni will help develop your skills and knowledge and is a way for your educators and mentors to assess this progress. During your studies, you'll learn to use reflection more intentionally to improve your creative practice, and these are skills you'll continue to benefit from for the rest of your career.

Reflection is used in a multitude of ways in art and design. Select the expandable headings to read examples of some of the activities that you might do as an art and design student that involve reflection.

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can view it online here:

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keytransferableskills/?p=156#h5p-23

Transcript



Why is reflective practice important?

It's commonly accepted that doing the same thing over and over again is unlikely to achieve different results. Change and improvement require reflection, which gives us a chance to pause and look back on what's happened so that we can look forward with stronger ideas of how to achieve our goals.

Opportunities to grow

Intentional reflection requires us to look closely at our mistakes (and our victories) and analyse why something happened and how it could've been different. This allows you to develop

strategies to improve your practice and overcome challenges you might face as an artist or designer. Nothing is a 'failure' if you can turn it into a valuable learning experience. Being able to use these skills to learn from every experience means that even when things don't turn out as you'd planned or wanted, the experience will offer you opportunities to grow your skills and knowledge and improve in your field.



Creativity and confidence

Reflective practice also helps you think more creatively, by requiring you to look at things from different perspectives and consider new approaches. Being able to look at situations from different angles and critically reflect on the best course of action also improves your decision-making skills. Having a better understanding of why something did or didn't work out means you'll be better informed next time, which builds your overall confidence.



Philosophy, goals, and portfolios

develop your own philosophy and to understand your values and vision. These are things that inform your approach to your work and your professional identity, and help you understand which opportunities are right for you. Reflecting on

As an artist or designer, it's crucial to

help you develop short and long-term goals and figure out what you need to do to reach them.

your strengths, weaknesses, and interests will also

Your journey towards these goals is the ideal subject for your reflective journal and inclusion in your portfolio. Documenting and collecting your reflections as you progress through your courses and career will help you build your professional portfolio, ensuring that it represents you, and how you've grown as an artist or designer. It will also prepare you to talk about the skills and knowledge you have gained in future job interviews.



Milestones, memories, and progress

Your collection of reflective work is something you can revisit as your career progresses. It can help you keep track of milestones and pinpoint moments when your perspective shifted. In future years, you might look back on journal entries and be reminded of a goal you had at the start of your studies that you've now achieved. You might notice repeated patterns in your experiences and decide to try something different – reflective practice will help you keep your work constantly evolving.



Evidence

Finally, reflection is a way to show evidence that you are developing in your field. Documenting your reflective thinking demonstrates to those assessing you and working with you that you have the necessary skills and knowledge and that you can learn from your challenges and successes.

Reflect

It's your turn to do some reflection. These prompts are intended to spark your curiosity in your own work, and help you gain insights into your art or design journey. You might like to write your answers in a journal or blog post, discuss them with a friend or classmate, or just take a moment to think deeply about your response — whichever way you answer these prompts, you will be working on your reflective thinking skills.

- What initially attracted you to your field of art or design? Can you pinpoint a specific moment or experience that ignited your interest?
- What aspects of the things you have studied recently do you find most interesting or inspiring? Why do you think these topics resonate with you?
- What are your short-term goals in art or design? How do you plan to measure your progress in achieving them?
- What are your long-term aspirations? Do you have a vision for how you'd like to contribute

- to the world of art or design in the future? What are the key skills you will need to develop along the way?
- What goals do you have for your reflective practice as an artist or designer? What strategies or tools do you plan to use? Are you more interested in keeping a journal, making vlogs, or engaging in group discussions?

Reflective writing: Studio Knowledge Object

Design Studio courses are common in many types of art and design programs. They generally have a central theme or address a real-life problem and require students to experiment with putting theory into practice and doing hands-on work. A common assessment task in design studio courses is the Studio Knowledge Object (SKO), which records the learning and insights a student has gained during the studio. Reflecting on the design studio experience and what you have gained from it is a significant part of the SKO.

The SKO has three main sections:

1. Contextualisation

Put the field of inquiry into context so that a non-expert reader can understand the key issues and approaches you refer to in your reflection.

Example:

This studio, Design for social change: climate change and food security, looks at the social role and ethical practices of communication design. Social change is a major influence on professional communication design as design can help to connect people to global issues which appear incredibly complex...

2. Reflection

Reflect on your learning and key insights from the studio, describing specific activities, concepts or approaches and evaluating their impact.

Example:

The most useful and interesting insight I have gained from this studio is the importance of research methods for creating enduser profiles. Before this journey, design research (for me) was about making mood boards and identifying basic audience demographics. Without downgrading the importance of these methods, I now recognise...

3. Future Application

Discuss how you can transfer this new knowledge to other projects and how it might affect your future practice.

Example:

This studio has given me confidence that I can continue to develop my skills in systems thinking for social innovation and sustainable design strategies. Taking the time to actually look at successful projects and campaigns that promote sustainable and socially just ideals, made me realise that complex design tasks are achievable if we connect the right problem with the

right audience in a way that hasn't been tried before. In future projects,...

To read full examples of reflective writing for the SKO task, and learn more about structuring your reflective writing in design, explore the Studio Knowledge Object tutorialon RMIT Learning Lab.

To get a more general overview of reflective writing and some useful structure and vocabulary tips, check out the Reflective Writing page of this resource.

An artist on reflective practice



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excluded from this version of the text. You can view it online here: https://rmit.pressbooks.pub/ keytransferableskills/?p=156#h5p-25

Transcript

Developing a reflective practice that suits you will benefit you in your career whether you're a mixed media artist, a UX designer, an industrial designer, a landscape architect, a communication designer or in any other role related to art and design. More than that, critical reflection is a highly versatile, transferable skill that you can use in any field as well as many aspects of your personal life, from reflecting on your shopping habits in order to fine-tune your grocery budget to figuring out how to best communicate a relationship issue.

This page covers information about reflective practice in art and design. Check out the other pages in this chapter if you would like to learn more about reflective practice in general, reflective writing, and the role of reflective practice in education, health, and business.

REFLECTIVE PRACTICE IN CONTEXT: BUSINESS

"...we are constantly engaging in notifications, social media, texts, emails. And yet the most creative moments come when we put all that aside. That's why sometimes people's best ideas come in the shower. So as an entrepreneur, make time for that reflection [and] ability to connect with your best ideas..."

– Arianna Huffington

What is reflective practice in business?

Reflective practice is the habit of engaging in examination of your experiences, actions and decisions. It involves questioning your assumptions and considering the context, emotions, intentions, and implications behind events and learning from

them. It presents the opportunity to turn what might be considered a failure into a valuable learning opportunity from which you can grow as a student and a business professional.

This reflection can take place formally (like an essay connecting reflections to theory) or informally (like writing a personal journal). You might reflect individually or in collaboration with classmates, teachers, colleagues or mentors. Your reflective practice can be written, verbal, or simply just an intentional moment to look back on an experience in your day so you don't miss the chance to learn from it. Applying these lessons to your skills and knowledge will help you in your student success and professional development.

Why is it important?

Business is a vast field and so are the uses for reflective thinking and practice within it. Whether you're studying relationships in international business, doing digital marketing



research, running a finance project, or starting your own business, the ability to reflect and improve is a valuable skill. Take the opportunity to learn and apply it while you're studying so that you're ready to benefit from it in workforce.

Reflective practice is beneficial in the business world because it:

- helps students make meaning of their learning and then transfer it to the cultural context of business practice, implement real-world solutions, and continue reflection
- develops the logical and critical thinking skills that are crucial in business and is a key element in entrepreneurship and innovation
- builds performance by developing discipline and selfregulation, which contributes to self-awareness and confidence
- builds management and leadership skills
- leads to positive change in the culture of organisations
- allows learners and professionals to view and use challenges as learning opportunities rather than roadblocks or failures
- prevents problematic situations from recurring
- teaches people to consider things from different perspectives and study their own biases. This is an important skill for a manager or project leader as it helps build empathy and can improve decision-making and rapport with staff and stakeholders
- strengthens cultural awareness and understanding between individual business professionals, stakeholders, and companies. This is especially important when collaborating and making global business connections

 helps individual professionals and companies figure out what went well and what could be done differently, which saves time, effort, money, and stress next time.

Reflective activities

During your studies and in your professional career, you will do a lot of reflective thinking. Sometimes it will be explicit, perhaps even an assessment task, and other times it will be part of what you're working on, and you'll do it without realising.

For example, you might need to write a reflective essay discussing how your experiences relate to business management theories and how this will inform your future career. Your essay will follow a set structure, and you will step through the different stages of reflection explicitly.

On the other hand, early in your career you might be facing a roadblock and meet up with a trusted colleague to talk about it. They will encourage you to look at it from different perspectives, think back on what you've tried so far and why it hasn't worked, and then together you will come up with an action plan based on the discussion. That (hypothetical) conversation with your colleague was an example of reflective thinking and practice.

Here are some more examples of types of reflection you're likely to do in your studies and future career:



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Text version

Reflect

Reflection prompts are a great way to get into the habit of intentionally examining your feelings and experiences. You might like to write your answers in a journal or think things over and just note down your next steps.

Here are a few prompts for you to reflect on:

 What have I learnt recently that excited or surprised me? Why did I feel that way? Will I take the information and use it in my own professional practice?

- What are some of my strengths in my field? What are some of the areas I feel less confident in?
- Is there someone in my industry who I look up to and would like to emulate? What are their positive qualities? What is it about them that I admire so much?
- What is one of my current career goals? Am I actively working towards it in some way? How am I measuring my progress? Are there any small successes I can celebrate to help me stay motivated towards achieving my main goal?

Asking the right questions: reflective prompts in context

How do you think the people described below could benefit from reflective practice? Can you think of some reflective question prompts that would help them learn from their different situations and set them on the right path? You can

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expand the 'reflective prompt' sections to see some suggestions.



Carlos is a project manager for a tech company. Despite his years of experience, he's facing a significant challenge with his current project team. They're all experienced professionals, but communication breakdowns and slow progress have become problems. Carlos has also noticed that his team members aren't coming to him with their doubts and issues anymore.

What questions could Carlos ask himself to benefit from reflective practice?



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A marketing student, Zeke, attends a talk by a guest speaker in the social media marketing industry. Zeke is very impressed by the speaker and the 90-minute talk makes them feel a sense of enthusiasm and motivation. They leave the



talk feeling really inspired but not sure what to do next.

What reflective questions would help Zeke benefit from this positive experience?



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Linh is an entrepreneur who has been working on her business for a year and is starting to feel like things have gone off course. The business is building momentum, but she doesn't feel satisfied with it and is finding it hard to stay motivated.



What could Linh reflect on to figure out why she feels this way and whether to continue with her business?



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Expandable sections transcript

Structuring reflective writing

It's easy to start writing down the details of an experience, but remember, you don't want to produce a description or a summary without reflecting on its importance and what you've learnt. Some people find it more effective to use a model of reflection to structure their thoughts when they're writing. One such model is DIEP, which is an acronym for Describe, Interpret, Evaluate, and Plan. Getting into the routine of structuring your reflective writing will be especially useful when you need to write things for others to read, such as reflective essays and journal entries for assessment. See how this model can be used to write a reflective journal entry for project management on RMIT Learning Lab.

You can read about other reflective models on the Reflective Writing page.

You now have a solid idea of what reflective practice is and how it can benefit you in your studies and career — but remember, the ability to examine your experiences, analyse and evaluate them, make informed decisions, and continuously refine strategies extends beyond the realm of business. Critical reflection is a transferable skill, which means you will be able to use it in other areas of your life. It can be a tool for personal growth and wellbeing as well as a skill that employers in all industries find attractive. You can explore the other pages in this chapter to learn more about reflective practice in general and in other disciplines.

Before you go, you might like to check out this

11-minute TED Talk on reflection by business leader Paul Catchlove – 'The Habit That Could Change Your Career'.



One or more interactive elements has been excluded from this version of the text. You can view them online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=77#oembed-1

TED Talk Video Transcript

Sources

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Ono, A. and Ichii, R. (2019), Business students' reflection on reflective writing assessments, Journal of International Education in Business, Vol. 12 No. 2, pp. 247-260.

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REFLECTIVE PRACTICE IN CONTEXT: EDUCATION

"Learning new techniques for teaching is like the fish that provides a meal for today; reflective practice is the net that provides the meal for the rest of one's life."

Biggs, J. (2003) Teaching for Quality Learning at University: What the Student Does (2nd ed.) Berkshire: SRHE & Open University Press.

What is reflective practice in education?

Good teachers don't only assess their students – they also reflect on their own skills, setbacks, and successes to continually improve their teaching practice. Reflective practice

in education is an intentional process in which teachers reflect on, analyse, and evaluate their teaching practice, including things like planning, teaching methods, behaviour management strategies, learning activities, and interactions with students and parents. These reflections can take place individually, or through collaboration with other teachers or mentors. They might be organised and formally documented or just a casual chat with personal notes. After the process has taken place, in whatever form, teachers will consider how their practice can be improved upon, based on their reflections.

Reflective practice in education starts from a university student's journey as a pre-service teacher and ideally continues until they leave the profession. When teachers reflect on what has worked and what hasn't, it enables them to act intentionally to improve the learning experience for their students.

Below are some examples of activities within education that involve reflective thought and can all be considered part of an educator's reflective practice.

- Keeping a reflective journal
- Writing reflective essays on the application of educational theories in the classroom
- Reflecting on feedback from students or observation notes
- Discussing lessons and progress with mentors and colleagues

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- Participating in communities of practice with peers in education
- Keeping notes on how lessons went and using them to develop improved versions of lesson plans and courses
- Writing reflections on professional development sessions such as internal workshops or international conferences
- Writing compliance documents on the classroom dynamic and interactions with students and their parents
- Writing critical incident reports on student behaviour and classroom events
- Planning and writing academic papers on education
- · Observing and mentoring early-career teachers

Earlier in this chapter we covered **reflective thinking and practice** in general and **reflective writing**.

Why is it important?

At first, reflection might not seem necessary when you're gaining experience and adapting in the moment. However, as time passes and you teach more classes, it becomes challenging to remember all the valuable lessons you've learnt along the way. Keeping a record of your reflections can help your future lesson planning, and having a collection of reflections to draw from is incredibly useful, especially when it comes to putting

together a teaching portfolio or discussing professional growth in interviews.

Reflective practice provides a means for teachers to improve their practice to effectively meet the learning needs of their students. In Becoming a Critically Reflective Teacher (1995), Brookfield succinctly describes the advantages of reflective practice to teachers as:

- It helps teachers to take informed actions that can be justified and explained to others and that can be used to guide further action.
- It allows teachers to adjust and respond to issues.
- It helps teachers to become aware of their underlying beliefs and assumptions about learning and teaching.
- It helps teachers promote a positive learning environment.
- It allows teachers to consciously develop a repertoire of relevant and context-specific strategies and techniques.
- It helps teachers locate their teaching in

the broader institutional, social and political context and to appreciate that many factors influence student learning.

© State of New South Wales (Department of Education), unless otherwise attributed, 'Reflective practice' is licensed under CC-BY 4.0.

Read the scenario below to see an example of the importance and benefit of reflective practice.

A pre-service teacher develops a game to play with her year nine geography students to learn and practice key vocabulary. She spends hours preparing quiz questions and making sure all the learning content is valuable. On the day of the lesson, however, things don't go to plan. The students are rowdy and don't take the activity seriously, and the pre-service teacher ends the game early, feeling that the class has descended into chaos.

She has to teach the other year nine group two days from now, and she had been planning to just repeat the same lesson with a few tweaks, but now it will have to be completely changed. This is the perfect time for some reflection, analysis, and evaluation.

Spend a moment considering how reflecting on this lesson might be useful for the pre-service teacher. Then, expand the sections below to see how the next lesson goes depending on whether she reflects or not.



An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=251#h5p-8

Transcript

Case study

Gain a better understanding of how you will use reflective

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practice throughout your teaching career, by exploring the case study below.



An interactive H5P element has been excluded from this version of the text. You can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=251#h5p-7

Transcript

Reflect

Now that you've learnt about reflective practice and explored its use in a teacher's career, why not get started with your own reflections on your personal learning experiences?



An interactive H5P element has been

excluded from this version of the text. You

can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=251#h5p-9

Transcript

In this useful video from Queensland College of Teachers, graduate teachers and their mentors talk about the journey to becoming fully registered teachers and the role that reflective practice plays.



One or more interactive elements has been excluded from this version of the text. You can view them online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=251#oembed-1

Check out this video from ACECQA to learn about critical reflection in practice in Early Childhood Education.

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E E One or more interactive elements has been excluded from this version of the text. You

can view them online here: https://rmit.pressbooks.pub/ keytransferableskills/?p=251#oembed-2

As you have learnt, reflective practice is an integral part of studying and working in education, and a skill that you should focus on developing early in your career — and the information on this page is a great place to start.

REFLECTIVE PRACTICE IN CONTEXT: HEALTH

Reflective practice in healthcare starts from your time as a student and continues throughout your professional career. It's embedded in health sciences and allied health courses, from medicine, paramedicine and nursing to psychology, physiotherapy and nutrition science. It's an ongoing, careerlong practice, so it's a good idea to build up your reflective skills as early as possible. Critical reflection is a useful learning tool. It requires you to analyse a feeling or experience and learn from it, so you know what to do better next time.

As a health student or professional, you might reflect on challenges or things that go wrong, like:

- an incorrect diagnosis or clinical decision
- an uncomfortable interaction with a patient or poor rapport in general
- personal bias or a cultural sensitivity misstep
- a breakdown in communication
- staff burnout
- an ethical dilemma or boundary issue.

There are also plenty of positive things that you might reflect on to ensure your practice remains at a high standard, such as:

- beneficial classes or professional development sessions you've attended
- positive feedback from a patient or client
- a successful new approach you have tried with a patient
- implementing self-care strategies
- effective collaborative experiences
- a well-managed emergency procedure.

These different types of reflections might require a formal, written document or just an informal chat with a colleague or clinical placement supervisor. Reflective practice is done both independently and collaboratively, depending on the situation and the person's needs and preferences.

Check out the pages in this chapter on reflective thinking and practice and reflective writing, if you would like to get a more general background.

Why is reflective practice important in the healthcare industry?

Everyone benefits from a culture of valuing and participating

in reflective practice: the health professional, their colleagues and patients, and the healthcare system as a whole.

Here are just some of the benefits:



An interactive H5P element has been excluded from this version of the text. You

can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=75#h5p-11

Transcript

To learn more about reflective practice in health and its benefits, watch this helpful video by the Clinical Excellence Commission:



One or more interactive elements has been excluded from this version of the text. You can view them online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=75#oembed-1

Writing a reflective journal

entry

Medicine, nursing, allied health and health science courses generally have a professional placement component. During your placement, you will be required to demonstrate your progress by reflecting on your experiences and what you have learnt. This is also an opportunity for your supervisor and educators to assess your critical reflection competency. A common form of assessment is a reflective journal, which you write in regularly and discuss with your mentor, supervisor, trainer, or teacher.

The Gibbs' Reflective Cycle is a model that is often used to structure reflective writing tasks. It was developed by Graham Gibbs in his 1988 book 'Learning by Doing' and has proved to be popular in many professional fields, including those in the healthcare sector.



The information below explains each step of the model and shows its application. You can expand each section, or access the transcript, to read an example of a nursing student's reflective journal entry.

Description

This is where you describe what has happened. You need to set the context for your reflection, but don't start interpreting it yet. Include the details and facts of the situation or experience you are reflecting on.



An interactive H5P element has been excluded from this version of the text.

You can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=75#h5p-13

Feelings

This is where you include your thoughts and feelings from your own perspective. Write about how you felt at the time of the event and afterwards.



An interactive H5P element has been excluded from this version of the text.

You can view it online here: https://rmit.pressbooks.pub/ keytransferableskills/?p=75#h5p-14

Evaluation

This is where you write about what was good and what was challenging about the situation. What are the things that worked and what didn't? Comment on any strengths and weaknesses you noticed in your own skills or knowledge and explain the ways in which the experience was important to you and others.



An interactive H5P element has been excluded from this version of the text.

You can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=75#h5p-15

Analysis

This is where you discuss the things which contributed to the positive and negative aspects of the experience and how things could have been different. It's usually the longest part of the model. You should explain what you have learnt

from the situation and your reflection on it. You might also include references to theories you've studied in class or articles you've read for your course.



An interactive H5P element has been excluded from this version of the text.

You can view it online here:

https://rmit.pressbooks.pub/ keytransferableskills/?p=75#h5p-16

Conclusion

This is where you summarise the insights you've gained and explain how the experience has contributed to your professional growth.

Comment on what you're pleased with and what you need to do better next time.



An interactive H5P element has been excluded from this version of the text.

You can view it online here: https://rmit.pressbooks.pub/ keytransferableskills/?p=75#h5p-17

Action Plan

This is where you write about the steps you're going to take based on your reflection, and how you will apply your learning to future situations. Comment on the changes or improvements you will make and how.



An interactive H5P element has been excluded from this version of the text.

You can view it online here: https://rmit.pressbooks.pub/ keytransferableskills/?p=75#h5p-18

Reflect

Consistently working through a reflective process, even if it's just chatting to friends or thinking things over while you have lunch, will help develop your skills. Try introducing reflection into your daily routine – it's as easy as considering your answers to some reflective prompts. Here are some to help you get started:

- Do you find it difficult to get along with or relate to any patients? Why do you think this is? How does it make you feel?
- What's something (big or small) that has made you feel capable and proud this week?
 What led to this experience?
- What's something you've learnt lately that has surprised or interested you? What will you do with this knowledge going forward?
- Have you encountered any misunderstandings this week? What caused them? Consider this from the perspective of everyone involved.
- Is there anything you'd like to change about the health-care profession you're in? How

would you change it?

 Have you felt anxious or upset while studying or working in your healthcare field? What do you think contributed to those feelings?

Another way to reflect, is to think back over your day and seek out the learning moments. Driscoll's reflective model is easy to follow when you're reflecting informally but still want a bit of structure.

- 'What?' What happened?
- 'So what?' Why does it matter? Consider why the experience is important.
- 'Now what?' -What have you learnt and what will you do? Plan your next steps based on what you've learnt from the experience.

Example:

What? I did my first independent consultation today. I created a personalised meal plan with the patient, but she seemed frustrated and resistant to my recommendations. She told me that she was

tired of health professionals 'bossing her around', so I changed my approach, and at the end of the session she said she was pleased with how our consultation went overall.

So what? I think this was okay for my first consultation, but it might not have been if I hadn't noticed the patient's demeanor. In the past, patients have responded well to my naturally authoritative tone, but my patient today clearly didn't feel comfortable with this approach. When I asked her to give me more feedback on the plan and made changes based on her comments, she became much more receptive. This experience has made me realise that there might be less outspoken patients who feel pushed around by medical professionals and my communication style may contribute to this.

Now what? I've learnt that one communication style will not suit all patients and that I should seek patients' input more. In future, I'll consider the patient's communication style at the beginning of a

consultation and adapt my own to suit the dynamic they set. I'll encourage them to collaborate on the plan, and I'll also ask patients whether the plan aligns with their preferences and lifestyle.

As you have learnt, reflective practice contributes to continuous improvement and creating the best conditions for you, your colleagues, and your patients. You will engage in reflective thinking, writing, and discussions during your studies, your professional placement, and in your future role as a health professional – so it's important to know how to do it well and get the most out of it. The ability to reflect on your experiential learning and improve your practice is not only essential in the healthcare sector – it's a transferable skill that is highly valued across all industries. You can explore the other pages in this chapter to learn more about reflective practice in general and in other disciplines.

To learn more about reflective writing in nursing, check

out the Learning Lab tutorial on writing a critical incident reflection.

Sources

Gibbs, G. (1988). Learning by doing: A guide to teaching and learning methods. Further Educational Unit, Oxford Polytechnic, Oxford.

Clinical Excellence Commission. (n.d) *Reflective Practice*. https://www.cec.health.nsw.gov.au/improve-quality/teamwork-culture-pcc/teamwork/reflective-practice

Clinical Excellence Commission. (2002) *Reflective Practice workbook.*

https://www.cec.health.nsw.gov.au/__data/assets/pdf_file/0010/750529/reflective-practice-workbook.pdf

1.4 EDUCATOR'S NOTES

The relevance of reflective thinking and practice skills

The *Reflective thinking and practice* chapter includes an introduction to reflective thinking and reflective practice models, gives an overview of reflective writing and useful vocabulary, and then places reflective practice in context by exploring its use in four disciplines: art and design, business, education, and health.

The ability to carry out reflective practice is a graduate skill that will benefit your students in their careers. Tertiary courses in health, education, and social work have long had elements of reflective practice embedded, and many more disciplines now recognise the value of including reflective activities for learning and assessment. When students are able to think reflectively and effectively show this thinking in tasks, educators are better able to see their learning progress and developing competencies.

Learning Objectives

After completing *Reflective thinking and* practice, *Reflective writing*, and a relevant *Reflective practice in context* page, learners should be able to:

- Describe the concept of reflective thinking and reflective practice and discuss its relevance in various aspects of everyday life
- Explain the relevance and importance of reflective practice to their field of study and profession
- Identify and describe different models of reflection and highlight their key components
- Demonstrate an understanding of how to initiate and carry out their own reflective practice activities
- 5. Identify various forms of reflective writing and explain their differences in purpose and language
- 6. Apply a reflective model or framework to their

own experiences to show they can analyse, evaluate, and identify what they have learnt.

Using this content

There is no prescriptive method of how to use this content in your teaching. How you include it in your delivery will depend on many factors, including your classroom environment and how much prior knowledge your students have of reflective practice. The following sections offer guidance, suggestions, and examples of how the content can be used.

Modular design

The modular design of this content allows educators to create learning experiences tailored to their students' needs. You are able to select specific pages based on your teaching needs and pick and mix from the text and activities to support students by scaffolding reflective tasks, sparking reflective thinking, and building students' awareness of the practical application of reflective skills in their discipline.

Although the core and contextual pages can be used independently, and you can select individual sections and activities as needed, consideration has been given to the order

of learning content on each page to make it possible for you to use the full chapter with your students.

Core pages:

The core pages are *Reflective thinking and practice* and *Reflective writing*. They are multidisciplinary pages and focus on the skill of reflection and reflective models rather than specific fields. These pages offer a comprehensive understanding of reflective practice. For students who do not have much knowledge of reflective practice, the two core pages are recommended, followed by the contextual page related to their discipline.

Contextual pages:

The contextual pages cover reflective practice in art and design, business, education, and health. The main aim of the content in these pages is to ensure learners see how reflective practice can benefit them in their everyday lives and disciplines. These pages include scenarios and real-world examples relevant to assignments and roles in the field. You have the flexibility to use only the discipline-specific pages, or parts of them, if that better suits your teaching objectives and students' existing knowledge.

Some repetition exists across the contextual pages. This repetition is intentional, ensuring that each page provides

meaningful insights and guidance even when accessed independently from the other pages.

Things you can do with this content:

- Encourage learners to consider the reflective thinking and learning they've already done by using selected activities in class as a starting-off point or warm-up activity.
- Use the questions in the Reflect boxes to guide discussions on reflective practice in-person or online.
- Create tailored lessons teaching reflective thinking and writing by selecting relevant information and activities and combining it on your own platform.
- Use the reflective writing examples in the chapter as models to scaffold your students' work by looking at them together in class or asking students to review them outside of class.
- Include a link to this chapter as a support resource for students doing reflective writing tasks for assessment, such as those undertaking professional placement or WII.
- Enhance your students' understanding of reflective practice within their specific field by using the case studies and scenarios as supplementary material.
- Use the industry-focused examples and scenarios to

inform and motivate students who might not fully appreciate that reflective practice is a future skill, not just something they do for assessment.

For more ideas, check out the general suggestions in the *Educator's guide* in the Front Matter.

Integration, accessibility, and inclusion

Please read the <u>sections on integration and accessibility in the Educator's guide.</u> This is where you will find information on the practicalities and best practices of taking, adapting, and using this open educational content, such as importing it into your LMS, downloading .h5p files, attributing and adding the correct licensing information, and ensuring the content is accessible and inclusive.

Activity ideas

The content in the reflective thinking and practice chapter can be used by learners independently and asynchronously, but it also offers plenty of opportunities for educator-guided learning. Here are some specific examples of how educators can incorporate parts of this content into their delivery.

Ask students to extend examples

When introducing the topic of reflective thinking, instruct students to look through the 'reflective thinking in everyday life' turn cards (H5P object) on the *Reflective thinking and practice* page. Then, ask students to reflect on their own experiences and think of some examples of times when they have used reflective thinking in daily life. This can be done synchronously in pairs or groups online or in person or allocated as an individual post-lesson activity, with students choosing one or two examples to share on the class discussion board.

After introducing the topic of reflective practice, the 'Developing reflective practice' interactive infographic is a useful tool for encouraging students to start establishing their own reflective habits. This infographic can be linked to or embedded in another digital learning environment (like an LMS).

To turn this infographic into an extended activity,

instruct students to use it as a starting point for planning out how they will incorporate reflective practice into their lives. They can discuss each step of the infographic with a classmate or work individually, and then share their plans.

For example, the first step on the infographic is 'setting aside time.' Students can discuss when they have free time, and how much of it they can dedicate to reflective practice. The next step is, 'find the right space,' students can brainstorm, in pairs or larger groups, ideal locations that are accessible to them for doing reflective thinking.

Prompt deep thinking with Reflect questions

The reflection questions included in this chapter offer numerous opportunities for learners to reflect on the experiences they've had in their field and the reflective thinking and learning they've already done.

Each page has a 'Reflect' box with prompts which encourage learners to think deeply within a reflective framework. These are basic reflection questions which learners at all levels should be able to respond to with the appropriate context and scaffolding.

Before teaching reflective writing, allow time and space for students to think about and talk about the intentional and incidental reflective writing they might have already done. Direct students to the questions in the 'Reflect' box on the Reflective writing page and ask them to consider the questions and then share their responses with a classmate. When they have finished discussing the questions, they can look through the 'Type of Reflective Writing' slideshow and might be reminded of other types of reflective writing they have done in the past.

If students cannot think of examples of times when they have done their own reflective writing, they could be asked whether they ever consume the reflective writing of others — such as blogs or personal essays.

Combine activities and Reflect boxes to create collaborative tasks

The Reflective Practice in Context: Business page includes a 'Reflect' box with prompts encouraging students to reflect on their own growth in their study area. The questions double as scaffolding for the next activity on the page, which asks students to consider targeted reflective questions to help characters solve authentic business problems.

Instruct students to answer the reflection questions about themselves individually or in pairs. Then, direct them to read the situations of the three characters in the next activity and brainstorm in small or large groups reflective questions that could help the characters in each scenario. The students can then expand the accordion sections to see if their questions were similar to the example questions. Alternatively, if students need more scaffolding before forming

their own questions, they can look at the example questions for each character and then add 2 or 3 of their own

The Reflective Practice in Context: Education page includes an H5P slideshow which is a case study of a (fictional) primary teacher, Jana, showing the types of reflective practice she undertakes throughout her career – starting as a pre-service teacher, moving on to a role as a graduate teacher, and finally later down the line as an experienced teacher. This case study is authentic in its presentation of professional futures to education students.

Before exploring the case study slideshow, ask students to discuss in pairs or small groups what types of reflective activities the teacher, Jana, might need to do in each stage of her career.

Additional questions for discussion could be:

- What support do you think she will need?
- · How important do you think these activities will be at each stage of her career? Why?

Ask students to explore the case study

slideshow (on their own or on shared devices) to learn about the reflective practice Jana does at each stage of her career.

Ask students whether they have any thoughts or questions.

As an educator, you might like to mention how you approach your own reflective practice.

The last slide talks about Community of Practice – this is an opportunity to ask students about what types of communities of practice they could participate in. And remind them that an online forum (perhaps for their current course) is a type of CoP as well.

Use examples as scaffolding for students' own reflective tasks

The **Reflective Practice in Context: Health** page includes a 'Reflect' box with in-depth questions that lead into a more

structured reflection task, which could also be a writing activity. The task follows the What? So What? Now What? Model. Students could be instructed to choose an experience from their day, week, or semester, and place it into the provided model. This could be shared verbally, posted online with peer feedback or comments, or set as an individual, unassessed task. As this model is commonly used for reflective writing in professional placement journals, it could also be used as assessment scaffolding.

The Reflective Practice in Context:

Education page includes a guided reflection activity, which helps education students reflect on their own learning experiences. This activity could be done during an allocated amount of time during a lesson or given to students as a post-lesson task.

The guided reflection is an 'H5P documentation tool', which prompts students to reflect on a positive and negative learning experience and steps them through the stages of analysing the experience and reflecting on what they learnt from it and how they will use this knowledge to inform their own teaching practice. Students can enter their answers into the blank fields, and then download their reflection to their device when they have finished. The answers are not stored on the page or website. As their educator, you might ask students to send you the reflections or summarise their reflections and findings in class or as a personal activity for students to practice going through the motions of intentional reflection. Suggest to students that they keep this document, as they might like to include it in a future portfolio or assessment.

Introduce AI tools as a way to prompt reflective practice

The 'Reflect' box on the *Reflective practice* in context: Business page explains the

benefits of reflective prompts to kick-start the thinking process, and then asks learners to think about reflective questions which could help people get the most out of an experience or solve real-life problems.

Following an activity such as the one mentioned above, or any activity which explains the benefits of reflective prompts to guide deep thinking, AI tools can be introduced as a way to focus reflection on the key issues.

Explain to students that although the actual reflective thinking and output should come from them, Al language models can generate relevant prompts for them to respond to with their own thoughts and words.

Here are example prompts from different disciplines which an AI model could use to generate reflective questions for students.

"I am a university student. Provide me with 4 reflective questions to help me...

- get the most out of a workshop I attended on social media marketing?"
- 2. develop academic and career goals in the field of public health?"
- 3. reflect on the lessons learnt from a group assessment I just completed in my game design course. I want to reflect on the positives and negatives of working collaboratively and how I could improve this process in the future."
- improve my behaviour management strategies when teaching year 8 students who seem disengaged. I am currently undertaking professional teaching practice."

Instruct students to think of a goal they have, or a problem they would like to solve, and formulate a prompt which asks an AI language model to offer suggestions for questions to help them reflect on the situation. These prompts may need some editing to be an ideal fit for the students. When they have a set of questions

relevant to their lives and goals, students can discuss their answers with classmates or use them for independent writing.

Note: While this activity is considered valuable for both independent learners and students, it has not been included in the learner-facing content of this book. This decision stems from the uncertainty regarding independent learners' access to and knowledge of reliable, high-quality natural language processing tools. Students should be directed to a specific AI tool that the educator has reviewed to ensure quality results. Please note that to test this activity, Chat GPT 3.5 was used.

RMIT University's Signature Pedagogy is Active, Applied, and Authentic (AAA)

The examples above show how content from this chapter can be incorporated in course delivery to enhance active, applied, and authentic learning.

Active: Students are active partners in their learning through discussion and consideration of what they already know, and then by reflecting deeply on personal experiences to reach a learning outcome.

Applied: Students apply skills to go through the reflective process, understanding the importance of these skills through discussion and interactive content. They can apply their real-life experiences to reflective tasks, which should lead to measurable learning outcomes and future plans.

Authentic: The task examples, scenarios, and case studies, as well as the guided reflective questions and tasks align with the real expectations of how learners will use these skills during assessment, professional placements, and in their careers. The content and activities are directly relevant to students' professional futures. Examples of reflective practice and writing offer real-life and industryfocused content that aligns with the type of writing students will complete during their course and while on professional placement.

Resources

The content in this chapter was developed through the adaptation of selected Open Educational Resources (OERs) and the creation of original content. Some of these pages are supplemented with text from RMIT Learning Lab, and these sections are clearly referenced.

In cases where content is not an OER or licensing is unclear, the original source has been linked and/or clearly sourced. This is the case for the embedded You Tube videos

Pages that do not list OER attributions contain only original content unless otherwise referenced.

This resource list also includes academic sources which helped inform the adapted OERs or original content.

Reflective Thinking and Practice and Reflective Writing pages

"Reflective Writing" by University of York Library licensed under CC BY-SA 3.0 (OER)

"Reflective Practice Toolkit "by Cambridge University Libraries licensed under CC BY-SA 4.0 (OER)

"Writing an academic reflection", RMIT Learning Lab (Linked external resource)

"Reflective Writing", 2014, University of Hull, YouTube – listed under Creative Commons (Video)

Reflective Practice in Context: Art and Design

"Studio Knowledge Object", RMIT Learning Lab (Linked external resource)

Reflective Practice in Context: Business

"How to use DIEP", RMIT Learning Lab (Linked external resource)

"Writing an academic reflection", RMIT Learning Lab (Linked external resource)

Catchlove, P. (2022, September). The habit that could improve your career. TED. https://www.ted.com/talks/paul_catchlove_the_habit_that_could_improve_your_career, CC BY-NC-ND 4.0 International, (Video)

Ono, A. and Ichii, R. (2019), Business students' reflection on reflective writing assessments, *Journal of International Education in Business*, Vol. 12 No. 2, pp. 247-260. https://doi 10.1108/jieb-08-2018-0036 (Source)

Clifford, C. (June 2017) Self-made millionaire Arianna Huffington shares the No. 1 thing you need to do to be successful, *CNBC* (Quote)

Reflective Practice in Context: Education

"Reflecting on practice in completing the Graduate Teacher Performance Assessment", 2019, Queensland College of Teachers, YouTube (Video)

"Critical reflection in practice", 2019, ACECQA, YouTube (Video)

State of New South Wales (Department of Education), unless otherwise attributed, 'The advantages of reflective practice' is licensed under CC-BY 4.0. (OER)

Brookfield, S. 1995 Becoming a Critically Reflective

Teacher San Francisco: Jossey-Bass. (Referenced in 'The advantages of reflective practice') (Source)

Gibbs, G. (1988). Learning by doing: A guide to teaching and learning methods. Further Educational Unit, Oxford Polytechnic, Oxford. (Source)

Reflective Practice in Context: Health

Clinical Excellence Commission, Reflective Practice. https://www.cec.health.nsw.gov.au/improve-quality/teamwork-culture-pcc/teamwork/reflective-practice (Linked external resource)

"Reflective Practice", 2023, Clinical Excellence Commission, YouTube (Video)

Gibbs, G. (1988). Learning by doing: A guide to teaching and learning methods. Further Educational Unit, Oxford Polytechnic, Oxford. (Source)

"Critical incident report for nursing", RMIT Learning Lab (Linked external resource)

Additional resources

These resources were not used in this chapter but may offer value to educators teaching reflective practice.

The University of Edinburgh's Reflection Toolkit is a comprehensive open educational resource with a range of content for learners of all disciplines. It has a section for

learners and a section for facilitators of reflective practice. You can use content from this resource under a CC BY NC license, which means that it must be attributed and not used for commercial purposes.

The Reflective practice workbook is part of a suite of resources developed by the Clinical Excellence Commission to support the development of reflective practice skills. This resource is a detailed workbook for building reflective practice skills in healthcare students and professionals.

This video by Dr Phillip Dawson at Monash University is a thorough, student-facing, tutorial-style video on reflective practice aimed at students studying education. It's approximately 12 minutes in length and covers: revising reflective practice, defining reflective practice, the evidence for reflective practice, models of reflective practice, Dawson's anxieties about reflective practice, and making reflective practice work (in which he emphasises the value of peer learning groups).

The Strategies for Teaching Reflection Handout is a short resource offering educators guidance on how to start incorporating reflective practice into their delivery. It focuses on reflective writing, and includes suggestions for preassignment, mid-assignment, and post-assignment reflection.

TRANSFERABLE SKILLS RESOUCE COLLECTIONS

DIGITAL DEXTERITY COLLECTION

This collection of digital resources has been put together to help educators save time finding support materials to help build their students' transferable skills. The resources in this collection can be used to help learners develop their skills in areas such as using AI, doing group work online, critically evaluating online sources and creating accessible digital content.

Here you will find resources from RMIT's Learning Lab, and an open educational resource (OER) called *Learning Lab Contextualised Content*. There is also a selection of carefully curated OERs from outside RMIT,

Skill set:

Digital Dexterity

Skills:

- information management
- communicating and collaborating online
- using digital tools
- digital wellbeing

Sub-skills:

- online learning basics
- critically evaluating digital content
- doing online research

- developing digital content
- developing ePortfolios
- staying organised online
- doing group work online
- digital creativity
- · digital accessibility
- · digital ethics
- data visualisation
- digital security

which educators can take as a whole, adapt, or use as a starting point to create their own resource.

Although this collection focuses on the four main skills in the list to the right, each resource gives learners a chance to build multiple sub-skills. Use the skills and sub-skills in the search bar of the tables below to find relevant resources.

This collection is dynamic, and we hope that in future more materials will be developed and incorporated to

address some of the less prominently featured sub-skills. We invite suggestions for additional high-quality open educational resources that could enhance and expand this collection.

RMIT Resources

Learning Lab

Learning Lab is an RMIT Library digital resource offering support materials covering a large range of subject and skill areas. Learning Lab is currently open access, meaning it's on the open web, and is expected to go a step further soon, becoming an OER, which can be freely used and adapted on other platforms. This is a collection of the Learning Lab tutorials which relate to digital dexterity.

Page	Module	Skills and knowledge	
Digital literacy skills	Getting started	online learning basics	
Technology in tertiary study	Getting started	online learning basics	
Evaluate information sources using CRAAP	Researching your assignment	information management, critically evaluating digital content, doing online research	
Artificial Intelligence tools	Writing and assessments	using digital tools, online learning basics	
Why can't I just Google it?	Researching your assignment	information management, critically evaluating digital content, doing online research	
Working well together online	Online learning skills	communicating and collaborating online, critically evaluating digital content, online learning basics	
Online presentations	Online learning skills	communicating and collaborating online, using digital tools, online learning basics	
Choosing communication tools	Online learning skills	communicating and collaborating online, using digital tools, online learning	
Using collaboration tools	Online learning skills	communicating and collaborating online, staying organised online, using digital tools, online learning basics	

Page	Module	Skills and knowledge
Writing a discussion board post	Online learning skills	communicating and collaborating online, using digital tools, online learning basics
Interacting on a discussion board	Online learning skills	communicating and collaborating online, using digital tools, online learning basics
Writing academic emails	Online learning skills	communicating and collaborating online, online learning basics

Learning Lab Contextualised Content (OER)

Learning Lab Contexualised Content (LLCC) is a digital OER developed to add contextualisation to the skills and knowledge taught on RMIT's Learning Lab. The learning content is delivered in scenarios that allow students to appreciate the practical application of skills in their everyday lives. The LLCC resource can be used on its own, or to complement and supplement Learning Lab material. Its Creative Commons BY-NC-SA licence means you can take and adapt the content to suit your needs, providing

the content is attributed, used for non-commercial purposes (such as public education), and your own iteration is shared with the same licence. Here you will find a collection of the LLCC learning objects which relate to digital dexterity.

Learning object	Торіс	Skills and knowledge	Learning Lab alignment
Presenting in an online meeting	communication	communicating and collaborating online, using digital tools	 Online presentations Preparing for online presentations Mistakes and the lessons learnt Oral presentations basics
Highlighting the sustainable benefits of health technology	health, sustainability, careers	digital creativity, digital ethics	 United Nations Sustainable Development Goals (SDGs) Sustainable development goals: life below water
Visualising survey data with charts and graphs	event management	data visualisation	DataStatistics

Learning object	Торіс	Skills and knowledge	Learning Lab alignment
Exploring innovation and sustainability in agricultural technology	sustainability, engineering	digital creativity, digital ethics	 United Nations Sustainable Development Goals (SDGs) Sustainable development goals: life below water
Managing social media responsibly	communication, social studies	critical thinking, critically evaluating digital content, information management, digital wellbeing, digital ethics	 Engaging critically with social media Evaluate information sources using CRAAP
Investigating the reliability of online health information	communication, health	critical thinking, critically evaluating digital content, digital ethics, information management	 Engaging critically with social media Evaluate information sources using CRAAP

External Open Educational

Resources

These OERs cover a range of digital skills and knowledge areas. They have been selected after going through an evaluation process and all have Creative Commons licences which allow them to be used freely for educational purposes.

Use the table to search for resources by skills or discipline. To help educators find what they are looking for, descriptions of the selected OERs have been included below the table – here you will find links to each resource's licensing instructions, a summary of the content and activities in the resource, and suggestions on how they can be used.

OER	Institution or platform	Discipline	Skills and knowledge
23 Things	The University of Edinburgh	multidisciplinary	information management, communicating and collaborating online, using digital tools, digital wellbeing, doing online research, developing digital content, staying organised online, doing group work online, digital creativity, digital ethics, digital security
Digital Dexterity self-assessment tool	Griffith University	multidisciplinary	information management, using digital tools, digital wellbeing, developing digital content, communicating and collaborating online, digital security, data visualisation

OER	Institution or platform	Discipline	Skills and knowledge
Create accessible social media, documents and presentations	The University of Queensland (Pressbooks)	multidisciplinary	communicating and collaborating online, using digital tools, developing digital content, digital creativity, staying organised online, digital accessibility
Create Accessible Web Content	The University of Queensland (Pressbooks)	multidisciplinary	communicating and collaborating online, using digital tools, developing digital content, digital creativity, digital accessibility

Resource descriptions

23 Things

- Licence: CC BY 4.0 International
- Institute/Platform: The University of Edinburgh/The University of Edinburgh website

The University of Edinburgh's 23 Things is an excellent open educational resource, in the form of a website, designed to help learners build their digital knowledge. The content is aimed at undergraduate university students and covers the knowledge of core technologies and digital skills required of students and professionals.

The resource consists of 23 short modules that learners can complete individually. Modules can be shared separately, grouped, or completed as a whole course. Students who create and register a blog with 23 Things can also receive a digital badge upon

completion of all the Things. However, it is not necessary to register to use the content, and the creators encourage educators to use and adapt the content to suit their own delivery, with attribution to the original resource.

The Things contain text, short videos, and links to further resources. It should be noted that some content specifically refers to the University of Edinburgh. The resource makes use of LinkedIn Learning content in various modules, so it would be advantageous for learners to have accounts to access these materials.

The 23 Things are:

- 1 to 4: Introduction, Blogging, Digital Safety, and Digital Footprint
- 5 to 10: Equality Diversity and Inclusion, Accessibility, Digital Citizenship, Copyright, OER, and Algorithms
- 11 to 16: Video, Audio, Digital Learning Spaces, Collaborative Tools, Digital Study, and Digital Curation

- 17 to 20: Critical Digital Literacy, Reference and Citation Skills, AI and Ethical consideration, and Digital Wellbeing
- 21 to 23: Professional Social Presence, Contributing to Wikipedia, and Reflection

Digital dexterity self-assessment tool

- Licence: CC BY-NC 4.0
- Institution: Griffith University Library/ Griffith University website

The *Digital dexterity self-assessment tool* was developed for the Digital Dexterity project, initiated by the Council of Australian University Librarians (CAUL). Its licence

allows it to be shared and adapted for educational purposes, with attribution.

There are a range of question types, including checkboxes to select activities students have done before, knowledge check questions, drag and drop vocabulary questions, and an acknowledgement of how confident learners feel in each area. The self-assessment quiz takes students through questions related to:

- online interaction
- active and passive digital footprints
- data collection and display
- copyright
- content creation
- digital privacy

Upon completion of the quiz, the learner is taken to a results page which aggregates the data from their responses. There are three broad competency categories: "Developing", "Skilled", and "Adept". The final page offers links to a variety of resources for each category to encourage further independent study.

While the quiz does not directly teach terms and concepts, it does pinpoint areas where learners might require additional knowledge or skills in digital dexterity. The selfassessment could serve as a good introduction to the types of digital skills that are vital at university and in the workplace — educators can share the tool, allowing students to identify their own skill gaps, prompting them to explore the areas in greater depth.

It should be noted that some UX elements are not optimised (it is not possible to navigate backwards), which prevents learners from reviewing their answers. However, each page of the quiz can be saved as a PDF for later reference.

Create accessible web content

- Licence: CC BY-NC 4.0
- Institution/Platform: University of Queensland / Pressbooks

Create Accessible Web Content is the third chapter in a Digital Essentials module on Accessibility, authored by the University of Queensland Library. The license allows attribution-based, non-commercial use.

This OER encourages learners to think about web content from the perspective of accessibility – reflecting on what accessibility entails. Through clearly structured sections, it breaks down the importance of using plain language and explains web conventions such as heading hierarchies, hyperlink placement, and creating alt text for images. Each main section includes links to further resources and H5P mini quizzes, which encourage

learners to test their understanding as they progress through the chapter.

The module concludes with a website accessibility evaluation activity which learners can do independently or with classmates. They are required to examine a website using WAVE (Web Accessibility Evaluation Tool), and WebAIM and WAI web accessibility principles. The inclusion of this resource enables learners to practically apply the concepts they have learnt.

This chapter may serve as a standalone resource, particularly for use cases where learners are dealing with web content specifically. It could also be used together with the following chapter *Create accessible social media, documents and presentations.* Alternatively, educators could share, import, or adapt the h5p activities in the chapter to add interactivity to their own content.

Create accessible social media documents and presentations

- Licence: CC BY-NC 4.0
- Institution/Platform: University of Oueensland / Pressbooks

This resource is the fourth chapter in a Digital Essentials module on accessibility, authored by the University of Queensland Library. The chapter focuses on accessibility in social media, documents and assignments, PDFs, and presentations, and introduces learners to accessibility checker tools.

- The authors highlight the importance of using alt text for image-heavy social media platforms and discuss accessibility issues with hashtags, offering solutions to aid legibility.
- The OER discusses various ways to make text documents (including Microsoft and Google docs) more

accessible, including the use of alt text, built-in headings and styles (for screen reader compatibility), meaningful hyperlink text, as well as the use of colour and contrast.

- The section on PDF accessibility demonstrates the importance of Optical Character Recognition (OCR) and using it in Adobe Acrobat Pro to create editable and flowable text. The authors suggest CopyFish as a webbased alternative for learners who do not have access to Adobe programs.
- The final section on presentations suggests using notes, simple language, transcripts or close captions for video content, and recording presentations if possible.

At the end of the chapter, there is a learnercentered practice section (accessing a PDF, opening it in Adobe Acrobat Pro, reflowing the text content, adjusting contrast). The activity links to a University of Queensland login page to view the document. However, the digitised book, Web Accessibility, is also available in various online collections, including the RMIT Library Catalogue (which requires student or staff login). There is also a link to a LinkedIn Learning video, which learners need an account to access

Following on from the previous chapter on creating accessible web content, this chapter could be used to demonstrate and point out best practices for accessibility. It would be useful as a support resource for students who are developing digital content for coursework, assessment, and work-integrated learning.

Game: spotting misinformation online

Bad News, a game created with the help of scientists, immerses the player in the role of a fake news creator. Throughout the game, the player spreads misinformation and, in doing so, gains insights into six common tactics used in reality to disseminate false

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information: fearmongering, conspiracy theories, impersonating experts, polarisation, trolling, and discrediting.

Bad News alludes to real-world events and makes minor references to mild forms of violence (including impolite language on a fake social media site), but the posts are purely fictional, and the game has been designed to be enjoyed by people from all backgrounds.

This game does not belong to RMIT and is not an OER. However, you can share the link with your learners to help them learn about misinformation online. Learners could play the game outside of class and discuss their reflections later with their peers. The game takes approximately thirty minutes, but learners could spend longer exploring different scenarios.

Last updated January 2024. If you notice that a resource in this collection needs updating or know of an open educational resource that should be added to this collection, please contact us at

digital.learning.library@rmit.edu.au

HIGHER-ORDER THINKING COLLECTION

This collection of digital resources has been put together to help educators save time finding materials to build students' transferable skills. The resources in this collection can be used to help learners develop their higherorder thinking skills in areas such as critical and creative thinking, problem solving, and reflective practice.

Here you will find resources from RMIT's Learning Lab, educational open an resource (OER) called *Learning* Lab Contextualised Content. There is also a selection of carefully curated OERs from outside RMIT. which educators can take as a whole.

Skill set:

Higher-order thinking

Skills:

- critical thinking
- creative thinking
- problem solving
- reflective thinking

Sub-skills:

- questioning, judging and reasoning
- critical analysis
- critical evaluation
- critical reading

- · bias recognition
- synthesising ideas
- innovative thinking
- · decision making
- interpreting information
- accountability

adapt, or use as a starting point to create their own resource.

Although this collection focuses on the four main skills in the list to the right, each resource gives learners a chance to build multiple sub-skills. Use the skills and sub-skills in the search bar of the tables below to find relevant resources.

At present, it is challenging to find open educational resources online which tackle some of these capabilities at a sub-skill level, but as this collection is dynamic, we hope that more materials will be developed and incorporated to address some of the less prominently featured sub-skills. We invite suggestions for additional high-quality OERs that could enhance and expand this collection.

RMIT Resources

Use the search bar in the tables below to locate resources focusing on specific skills or sub-skills from the skill set list above.

Learning Lab

Learning Lab is an RMIT Library digital resource offering support materials covering a large range of subject and skill areas. Learning Lab is currently open access, meaning it's on the open web, and is expected to go a step further soon, becoming an OER, which can be freely used and adapted on other platforms. This is a collection of the Learning Lab tutorials which relate to higher-order thinking skills.

Page or tutorial	Module	Skills and knowledge
Analysing an argument	Critical thinking and argument analysis	critical analysis, critical evaluation, critical reading, bias recognition, questioning, judging and reasoning
Critical reading	Critical thinking and argument analysis	critical analysis, critical evaluation, critical reading, bias recognition, questioning, judging and reasoning
Introduction to critical thinking	Critical thinking and argument analysis	critical analysis, critical evaluation, bias recognition, questioning, judging and reasoning, synthesising, intellectual independence, problem solving
Logical fallacies	Critical thinking and argument analysis	critical analysis, critical evaluation, bias recognition, questioning, judging and reasoning, intellectual independence, accountability
Engaging critically with social media	Critical thinking and argument analysis	critical analysis, critical evaluation, bias recognition, questioning, judging and reasoning, intellectual independence
Synthesising	Referencing	synthesising information
Choose valid sources	Researching your assignment	critical evaluation, questioning, bias recognition, judging and reasoning
Writing an academic reflection	Reflective writing	reflective thinking, critical analysis, critical evaluation, problem solving, questioning, accountability

Page or tutorial	Module	Skills and knowledge
How to use DIEP	Reflective writing	reflective thinking, critical analysis, critical evaluation, problem solving, questioning, accountability
Reflective writing in design	Writing in design	reflective thinking, critical analysis, critical evaluation, problem solving, questioning, accountability

Learning Lab Contextualised Content (OER)

Learning Lab Contexualised Content (LLCC) is a digital OER developed to add contextualisation to the skills and knowledge taught on RMIT's Learning Lab. The learning content is delivered in scenarios that allow students to appreciate the practical application of skills in their everyday lives. The LLCC resource can be used on its own, or to complement and supplement Learning Lab material. Its Creative Commons BY-NC-SA licence means you can take and adapt the content to suit your needs, providing the content is attributed, used for non-commercial purposes (such as public education), and your own iteration is shared with

the same licence. Here you will find a collection of the LLCC learning objects which relate to higherorder thinking.

Learning object	Торіс	Skills and knowledge	Learning Lab alignment
Evaluating market information	marketing	critical thinking, research skills, critical evaluation, critical reading, bias recognition, synthesising ideas	• Evaluate information sources using CRAAP
Investigating the reliability of online health information	communication, health	critical thinking, research skills, critical evaluation, critical reading, bias recognition	 Engaging critically with social media Evaluate information sources using CRAAP
Managing social media responsibly	communication, social studies	critical thinking, research skills, critical evaluation, critical reading, bias recognition, problem solving, accountability	 Engaging critically with social media Evaluate information sources using CRAAP

Learning object	Торіс	Skills and knowledge	Learning Lab alignment
Recognising flawed arguments	sustainability, communication	critical thinking, critical evaluation, bias recognition, intellectual independence	Logical fallacies
Thinking critically when treating patients	health	critical thinking, accountability, decision making, problem solving, clinical reasoning	 Introduction to critical thinking What is critical thinking Becoming a critical thinker
Using a risk assessment matrix	engineering, event management	critical thinking, critical analysis, critical evaluation, decision making, problem solving	• Risk Assessment Matrix
Job advertisement: Aerospace Engineer – Spacecraft	careers, engineering	importance of critical thinking	 Goal setting and focus Procrastination Introduction to critical thinking Trigonometry

Learning object	Торіс	Skills and knowledge	Learning Lab alignment
Job advertisement: Graduate Nurse Program	careers, health	importance of critical thinking	 Introduction to critical thinking Case study report for nursing
Job advertisement: Schools Speech Pathologist	careers, health, social studies	importance of critical thinking	 Introduction to critical thinking Choosing communication tools Using collaboration tools Writing a case study Writing a report
Job advertisement: Social Policy Officer – Community Wellbeing	careers, social studies	importance of critical thinking	 Understanding your audience Analysing an argument Using collaboration tools Choose valid sources

External Open Educational Resources

These OERs cover a range of higher-order thinking skills and knowledge areas. They have been selected after going through an evaluation process and all have Creative Commons licenses which allow them to be used freely for educational purposes.

Use the table to search for resources by skills or discipline. To help educators find what they are looking for, descriptions of the selected OERs have been included below the table – here you will find links to each resource's licensing instructions, a summary of the content and activities in the resource, and suggestions on how they can be used.

OER	Institution or platform	Discipline	Skills and knowledge
Reflection Toolkit	The University of Edinburgh	multidisciplinary	reflective thinking, critical thinking, critical analysis, critical evaluation, questioning, judging and reasoning, accountability, interpreting information, problem solving
Reflective Practice Toolkit	University of Cambridge	multidisciplinary	reflective thinking, critical thinking, critical analysis, critical evaluation, questioning, judging and reasoning, accountability, interpreting information, problem solving

OER	Institution or platform	Discipline	Skills and knowledge
Principles of Reflection: An aid to reflective writing	University College Dublin	education	reflective thinking, critical thinking, critical analysis, critical evaluation, questioning, judging and reasoning, accountability, interpreting information, problem solving
Practical guides: Reflective writing	University of York	multidisciplinary	reflective thinking, critical thinking, critical analysis, critical evaluation, questioning, judging and reasoning, accountability, interpreting information, problem solving
Leading Innovation	eCampus Ontario (Pressbooks)	business, multidisciplinary	critical thinking, creative thinking, innovative thinking, problem solving

OER	Institution or platform	Discipline	Skills and knowledge
Nursing Virtual Case Studies	BC Campus (Pressbooks)	health, nursing	critical thinking, problem solving, questioning, judging and reasoning, bias recognition, decision making, interpreting information, synthesising ideas, accountability
Judgment and Decision Making	NOBA	psychology, multidisciplinary	decision making, critical thinking, critical analysis, critical evaluation, questioning, judging and reasoning, bias recognition, problem solving
College Success: Thinking	OpenStax	multidisciplinary	critical thinking, creative thinking, critical analysis, problem solving
Creativity	NOBA	psychology, multidisciplinary	creative thinking, critical thinking, reflective thinking, problem solving, innovative thinking

OER	Institution or platform	Discipline	Skills and knowledge
Critical Thinking - Let's get critical	University of York	multidisciplinary	critical thinking, critical analysis, critical evaluation, bias recognition, reflective thinking, critical reading, synthesising ideas, interpreting information

Resource descriptions

Reflection Toolkit

- Licence: CC BY NC 4.0
- Institution/Platform: University of Edinburgh, UK/website

This toolkit is a comprehensive suite of open educational materials designed to foster reflective thinking and practice across multiple disciplines. It consists of sections catered to both learners and facilitators and is licensed under CC BY NC, allowing attribution-based non-commercial use.

This OER includes a range of student-centered materials on models of reflection, goal setting through reflection, reflection for employability, peer reflection, and techniques for crafting freeform or academic reflections. Additionally, it includes a curated list of supplementary resources. The content is mostly text, but it is thoughtfully organised into shorter sections, making it more reader-friendly and approachable for learners. There are some video elements with animations and student interviews. These materials can be used as is or adapted, and are ideal for integration into coursework, workshops, and self-paced learning.

The content meets accessibility standards. Videos have closed captions, images contain alttext, and the writing stye is in a clear, active voice, without academic jargon or any language that may limit learners from engaging with the content.

The Facilitators' Toolkit also includes a range of

resources on teaching reflective practice, including tips on how to introduce reflection as an activity or part of an assessment. Additionally, there are reflection case studies, which may be of particular interest to educators, but it should be noted that they are in a UK context.

Reflective Practice Toolkit

- Licence: CC-BY-NC-SA 4.0
- Institution/Platform: University of Cambridge, UK/website

This OER is part of a suite of study skills resources within the Cambridge Libraries LibGuides. The resources are appropriate for learners who are new to the concept of reflective practice and those who have some experience using reflective thinking.

The toolkit includes sections on:

- reflective practice as a concept
- how people use reflective practice in everyday life
- the common models of reflection (ERA, Driscoll, Kolb, Gibbs)
- possible barriers to reflection
- reflective writing tips, terms
- reflective writing activities

The content in the Toolkit is general, which makes it suitable for use in any discipline, but also means it may require some supplementation of subject-relevant material. The Toolkit includes videos, graphic elements, activity suggestions, and accessibility documents. The language used in this resource is informal and student-facing. However, be aware that there are occasional typos throughout.

Principles of Reflection: an aid to reflective writing

- Licence: CC BY
- Institution/ Platform: University College Dublin, Ireland/OER Commons

This OER is a 24-page Google PDF authored by David Jennings and Paul Surgenor. It is aimed at tertiary students training to be educators. The resource introduces reflective practice in education and includes supportive activities for reflective writing. This resource can be used and adapted with attribution.

The document steps students through discussing the meaning of reflective practice and its relevance to the discipline of teaching, different types and models of reflection (What?, Gibbs, Johns, Kolb), guided reflections, and reflective and critical writing with vocabulary suggestions. It also comments on the potential limitations of self-reflection.

This resource could be printed, or a digital copy could be given to students to go through as a

workbook as it has blank boxes for responses. It includes informative sections followed by independent or collaborative discussions and writing activities. It would be good for guiding students through a tutorial on reflective writing and could also be used as a reference document. The PDF includes diagrams which make the information more visually accessible and engaging.

Practical guides: Reflective writing

- Licence: CC BY-NC-SA 3.0
- Institution/Platform: University of York, UK/ website

This OER is a page within the subject guides on the University of York's library website. The resource includes materials on reflective writing for academic and employment purposes. The content is separated into sections to make it

easier for learners to navigate. Each section has a brief introduction on the page itself and is then built out with Google Slides or Google Documents which can be downloaded and edited, as well as links to related pages on the University of York website.

The sections on the *Reflective writing* page include:

- What is reflection? (Presentation slides with information on reflection in everyday life with basic learner tasks at the end of each slide)
- What is reflective writing? (Information on what makes reflective writing distinctive, and a step-by-step guided written reflection task)
- The language of reflective writing (Tips on language for exploring outcomes, interpretation, analysis and evaluation)
- Reflective writing in academic studies (Descriptions of different types of academic reflective writing, discusses planning reflective writing and how it is

assessed)

• Reflective writing for employability (Examples of how to change academic writing into employment applications and links to further careers resources).

The resource offers various examples of reflective writing, but it should be noted that while they demonstrate the general principles of reflective thinking and writing, the content of these examples is in a UK context.

Leading Innovation

- Licence: CC BY NC SA 4.0
- Institution/ Platform: eCampus Ontario, Canada/Pressbooks

This high-quality digital textbook, authored by Kerri Shields, is part of the eCampus Ontario

open textbook library, which provides learning resources for a range of topics, like RMIT's Pressbooks instance, Open Press.

The *Leading Innovation* textbook consists of chapters on:

- Business Innovation Foundations
- Thinking Creatively
- Service Innovation
- Process Innovation
- Sustainable Innovation
- Growth Strategy
- Design Thinking
- Product Innovation
- Innovation Risks
- Leading Innovation

Although this resource focuses on business innovation, much of the content can be used within a range of disciplines. For example, the parts addressing team creativity enhancement, fostering change through sustainable innovation design, and outlining the five stages of design thinking can be applied across diverse fields. It should be noted that some examples are within

a Canadian context. However, the ideas on innovative thinking are universal.

There are learning objectives at the start of each chapter, setting clear expectations for learners. At the end of each chapter there are key takeaways, review exercises, H5P knowledgecheck guizzes, and additional resource links, which makes this resource ideal for sharing with learners to work through independently. Alternatively, with attribution and the relevant CC licence, the text and H5P activities can also be adapted and integrated into educators' LMS courses, made collaborative, and completed by students as coursework.

Nursing Virtual Case Studies

- Licence: CC BY 4.0
- Institution/Platform: BCampus Open Education, Canada/Pressbooks

This engaging resource provides four case-based scenarios and activities to support undergraduate nursing students' clinical decision-making and judgment. The case studies increase in level (novice to advanced) and can be completed separately, as they are not connected to each other.

The scenarios examine the care of:

- an older adult with impaired perfusion in a community setting
- an older adult with infection and impaired cognition in an acute medical setting
- a young adult with diabetes, altered mood and substance use in a community setting
- an adult experiencing post-operative complications.

Each scenario begins with learning objectives, instructions, and a client briefing. Pre-requisite knowledge for the scenario is then outlined, and the learner begins pre-learning tasks in the form of videos and H5P interactives. The learner then moves on to an H5P interactive, which guides them through the case-based scenario, with quiz

questions and feedback. Having completed the scenario, the learner responds to reflection questions.

Depending on the level and needs of the students, these scenarios can be used in class or self-directed, asynchronous, learning. The H5P documentation tool is used for several activities – allowing learners to download their question responses for their own records or to share with their peers or educator.

It should be noted that these scenarios are contextualised to healthcare settings in Canada and some terms or standards may differ to those used in Australia. Additionally, H5P branching scenarios are keyboard navigable, and can be read by most screen reading software, but are not optimised for all software.

Judgment and Decision Making

- Licence: CC BY-NC-SA 4.0
- Institution/Platform: Harvard University, US/Noba

This resource is a digital module on NOBA, an OER platform for psychology-related content. The module was authored by Max H. Bazerman, a professor at Harvard Business School. The resource examines the psychology of decision-making and offers thought-provoking exercises to encourage learners to consider how biases can come into our decision-making processes.

Three main biases are explained in the module: overconfidence, anchoring, and framing, and these are explained using example problems. Learners are encouraged to answer questions to discover and reflect on their own decision-making biases. The module also includes ideas on reducing bias and improving decision-making skills. Discussion questions and a helpful vocabulary list of the terms used in the module

are provided at the end, along with further resources.

The resource does not include digital interactive activities, but its textual exercises can be adapted for interactivity. The module would be ideal for self-directed learners who are curious about judgement and decision-making behaviour. It could also form a full lesson plan with content, independent or collaborative tasks, steps to take to improve decision-making, and reflective discussion prompts. Depending on the learners' proficiency levels, additional guidance might be necessary to navigate the problems presented in the module, which involve making estimations, setting confidence intervals, and then reflecting on the accuracy of those estimations.

Creativity

- Licence: CC BY-NC-SA
- Institution/Platform: University of California, US/NOBA

This resource is a digital module on NOBA, an OER platform for psychology-related content. The module was authored by Dean Keith Simonton, a professor at the University of California.

It includes learning objectives, textual information with images, further resources and videos, discussion questions, and a vocabulary list.

The content sections in the module are:

- Creativity: What is It?
- Cognitive Processes: How Do Creators Think?
- Personal Characteristics: Who is Creative?
- Social Contexts: What environments Affect Creativity?

This module can serve as an introduction to

creative thinking skills. While it does not contain activities throughout, the in-depth discussion questions provide the opportunity for interaction and active learning through reflection. It can be given to learners to read outside of class, and the discussion questions explored further synchronously or on discussion boards. The language is Informal and approachable, and specialist terms are addressed in the vocabulary section, making it suitable for learners across levels and disciplines.

College Success: Thinking

Licence: CC BY 4.0

Institution/ Region: OpenStax/ USA

This chapter on ways of thinking is part of a larger digital textbook called College Success. It encourages learners to consider how they think, generate ideas, and apply different thinking approaches depending on the desired outcome.

The chapter includes pages on:

- What Thinking Means
- Creative Thinking
- Analytical Thinking
- Critical Thinking
- Problem-Solving
- Metacognition
- Information Literacy

The Creative Thinking resource is largely text, with some images, and diagrams. It is clearly laid out and sectioned. Each page includes activities requiring the learner to use creative thinking skills or reflect on their own knowledge and experiences.

Although the resource does not include digital objects, so learners are unable to receive realtime feedback, the content lends itself to active learning when used in a synchronous educational setting. The informative content could also be used for self-directed learning, or flipped learning, with the learners studying the

content independently at home and delving into the discussion questions during class.

Critical thinking - Let's get critical

- Licence: CC BY-NC-SA 4.0
- Institution/Platform: University of York, UK/ website

This OER is a subject guide on the University of York's library website. It is an extensive resource with different sections offering a range of material. The sections include:

- Critical thinking
 - Consists of a video introducing critical thinking, and Google Slides on criticality in everyday life and in different academic situations (like tutorials, labs, or writing tasks). The slide decks include potential talking

points and reflective questions for learners.

Evaluating information

Presents an engaging scenario
highlighting the significance of
evaluating online information.
 Additionally, there are Google Slides
focusing on data literacy and how
data can be used to mislead readers.

Critical reading

 Offers information on reading strategies and developing questions for analysis. It consists of text on the page, Google Docs, a video, a slide deck on active critical reading, and a small number of interactive activities.

Critical writing

 Includes a slide deck introducing critical writing, a Google Doc with examples of being 'too critical', a video on building a critical argument, and curated links to York University Library's related academic writing pages.

Although it includes a lot of valuable content, learners might find the layout and volume of material in this resource overwhelming. However, if they are guided to the relevant sections, this resource could be used independently. Alternatively, much of the content, like the slide decks, can be downloaded (with a Google sign-in), attributed, and used within an educator's own learning environment to support class activities and assessment.

Please note that this resource uses articles and examples set within a UK context.

Last updated February 2024. If you notice that a resource in this collection needs updating or know of an open educational resource that should be added to this collection, please contact us at

digital.learning.library@rmit.edu.au

INTERPERSONAL SKILLS COLLECTION

This collection of digital resources has been put together to help educators save time finding materials to build students' transferable skills. The resources in this collection can be used to help learners develop their interpersonal skills in communication, collaboration, emotional intelligence, and leadership.

Here you will find resources from RMIT's Learning Lab, and an open educational resource (OER) called *Learning Lab Contextualised Content*. There is also a selection of carefully curated OERs from outside RMIT, which educators can take as a whole.

Skill set:

Interpersonal

Skills:

- communication
- collaboration
- · emotional intelligence
- leadership

Sub-skills:

- articulating perspectives
- active listening
- non-verbal communication
- written

communication

- presentation skills
- communicating with diverse audiences
- unbiased communication
- discussing, debating, and negotiating
- · group work
- conflict resolution
- cultural sensitivity
- · ethical practice
- accountability
- managing projects
- professionalism

adapt, or use as a starting point to create their own resource.

Although this collection focuses on the four main skills in the list to the right, each resource gives learners a chance to build multiple sub-skills. Use the skills and sub-skills in the search bar of the tables below to find relevant resources.

This collection is dynamic, and we hope that in future materials will he more developed and incorporated to address some of the prominently featured sub-skills. invite suggestions additional high-quality open educational that resources

could enhance and expand this collection.

RMIT Resources

Learning Lab

Learning Lab is an RMIT Library digital resource offering support materials covering a large range of subject and skill areas. Learning Lab is currently open access, meaning it's on the open web, and is expected to go a step further soon, becoming an OER, which can be freely used and adapted on other platforms. This is a collection of the Learning Lab tutorials which relate to interpersonal skills.

Page or tutorial	Module	Skills and Knowledge
Writing a discussion board post	Online learning skills	communication, articulating perspectives, written communication
Interacting on a discussion board	Online learning skills	communication, collaboration, articulating perspectives, discussing, debating, and negotiating, group work, professionalism, written communication
Choosing communication tools	Online learning skills	communication, collaboration, group work, emotional intelligence, communicating with diverse audiences, managing projects, conflict resolution, discussing, debating, and negotiating, written communication
Using collaboration tools	Online learning skills	communication, collaboration, group work, managing projects
Working well together online	Online learning skills	communication, collaboration, group work, emotional intelligence, communicating with diverse audiences, conflict resolution, managing projects
Online presentations	Online learning skills	communication, collaboration, group work, leadership, non-verbal communication, presentation skills
Workplace writing basics	Writing and assessments	communication, communicating with diverse audiences, professionalism, written communication

Page or tutorial	Module	Skills and Knowledge	
Writing emails	Writing for the workplace	communication, communicating with diverse audiences, professionalism, written communication	
Group work	Writing and assessments	communication, communicating with diverse audiences, professionalism, collaboration, group work, discussing, debating, and negotiating, ethical practice, accountability, managing projects, written communication	
Understanding your audience	Writing and assessments	communication, emotional intelligence, articulating perspectives, presentation skills, communicating with diverse audiences, cultural sensitivity, professionalism	
Oral presentation basics	Oral presentations	communication, presentation skills, non-verbal communication	
Academic poster presentations	Oral presentations	communication, presentation skills, non-verbal communication	
Write clearly	Academic style	communication, written communication	

Learning Lab Contextualised Content (OER)

Learning Lab Contexualised Content (LLCC) is an OER developed to add contextualisation to the skills and knowledge taught on RMIT's Learning Lab. The learning content is delivered in scenarios that allow students to appreciate the practical application of skills in their everyday lives.

The LLCC resource can be used on its own or to complement and supplement Learning Lab material. Its Creative Commons BY-NC-SA licence means you can take and adapt the content to suit your needs, providing the content is attributed, used for non-commercial purposes (such as public education), and your own iteration is shared with the same licence. In this table, you will find a collection of the LLCC learning objects which relate to interpersonal skills, and their alignment to further material on Learning Lab.

Object name	Topic(s)	Skills and knowledge	Learning Lab alignment
Giving a presentation	communication, economic sustainability	presentation skills, communicating with diverse audiences, articulating perspectives, visual communication	 Understanding your audience Use clear and concise language Oral presentations basics
Using clear and concise language	written communication, workplace health and safety	written communication, communicating with diverse audiences	Workplace writing basicsWriting clearly
Presenting in an online meeting	communication	presentation skills, online learning basics	 Online presentations Preparing for online presentations Mistakes and the lessons learnt Oral presentations basics

Object name	Topic(s)	Skills and knowledge	Learning Lab alignment
Using accessible colour in design	art and design, accessibility, colour theory	communication, visual communication, communicating with diverse audiences,	Colour blindnessAccessible colour
Visualising survey data with charts and graphs	event management	communication, visual communication	DataStatistics
Writing a report	written communication, event management	written communication, communicating with diverse audiences, articulating perspectives	 Writing a report Workplace writing basics Understanding your audience

External Open Educational Resources

These OERs cover a range of interpersonal skills and knowledge areas. They have been selected after going through an evaluation process and all have Creative Commons licences which allow them to be used freely for educational purposes.

Use the table to search for resources by skills or discipline. To help educators find what they are looking for, descriptions of the selected OERs have been included below the table – here you will find links to each resource's licensing instructions, a summary of the content and activities in the resource, and suggestions on how they can be used.

OER	Institution or platform	Discipline	Skills and knowledge
Groups and	University of	communications,	Communication, collaboration, leadership, group work, communicating with diverse audiences, managing projects, accountability
Meetings	Kansas	multidisciplinary	
Persuasive	University of	communications,	communication, articulating perspectives, non-verbal communication, presentation skills, active listening, communicating with diverse audiences, ethical practice, accountability, professionalism, discussing, debating, and negotiating
Presentations	Kansas	multidisciplinary	

OER	Institution or platform	Discipline	Skills and knowledge
The Group Dynamics of a School Project	eCampus Ontario (Pressbooks)	multidisciplinary	collaboration, leadership, group work, communicating with diverse audiences, conflict resolution, cultural sensitivity, managing projects
Employability Skills Competency: Use Interpersonal Communication Skills	Camosun College (Pressbooks)	vocational Education, multidisciplinary	communication, leadership, group work, articulating perspectives, active listening, non-verbal communication, written communication, conflict resolution,
Working in Teams	BC Campus (Pressbooks)	careers, business, multidisciplinary	collaboration, group work, professionalism, managing projects, conflict resolution

OER	Institution or platform	Discipline	Skills and knowledge
Inclusive Language	Australian Disability Clearinghouse on Education and Training	education, multidisciplinary	communication, non-verbal communication, articulating perspectives, written communication, communicating with diverse audiences, cultural sensitivity, ethical practice, accountability, emotional intelligence
Emotional Intelligence	NOBA	psychology, multidisciplinary	emotional intelligence, communication, unbiased communication, ethical practice, accountability, cultural sensitivity, professionalism

OER	Institution or platform	Discipline	Skills and knowledge
Professional Communication in Health Professions	Nova Scotia Community College (Pressbooks)	health, nursing	communication, leadership, emotional intelligence, articulating perspectives, non-verbal communication, communicating with diverse audiences, conflict resolution, cultural sensitivity, ethical practice, accountability, professionalism

OER	Institution or platform	Discipline	Skills and knowledge
Business Communication for Success	University of Minnesota Libraries (Pressbooks)	business	communication, articulating perspectives, non-verbal communication, written communication, presentation skills, communicating with diverse audiences, discussing, debating, and negotiating, group work, collaboration, conflict resolution, cultural sensitivity, professionalism

Resource descriptions

Groups and meetings

• Licence: CC BY-NC-SA 4.0

• Institution/ Platform: University of Kansas, USA/Pressbooks

This resource is the eleventh chapter of a Pressbooks publication titled Problem solving in teams and groups published by the University of Kansas. Originally developed for a communications course, this digital textbook can add value across disciplines in which students need to learn how to successfully facilitate meetings, such as education, business, and policy development.

Like a traditional textbook, it is text-heavy with a small number of images. However, the language is direct and student-facing and easy to engage with.

The *Groups and meetings* chapter includes information on:

- Establishing a clear purpose statement and goals for a meeting
- Deciding how to meet and creating a meeting agenda to set expectations
- Considerations when inviting meeting

participants

- Identifying and arranging an appropriate meeting space (note that this section lacks important information on accessibility and inclusion when choosing meeting spaces)
- Facilitating an effective meeting (with a checklist, warnings, and guidelines)
- Using technology to facilitate meetings

When using or adapting this resource, educators should note that its sections are compiled from various sources and attributions may be necessary. The original content and sources used to develop this resource can be found in the references and attributions sections at the bottom of the *Groups and meetings* chapter.

Persuasive presentations

• Licence: CC BY-NC-SA 4.0

• Institution/ Platform: University of Kansas,

USA/Pressbooks

This resource is the tenth chapter of a Pressbooks publication titled Problem solving in teams and groups published by the University of Kansas. Originally developed for a communications course, this digital textbook can add value across disciplines in which students need to learn how to successfully deliver persuasive presentations.

Like a traditional textbook, it is text-heavy with a small number of images. However, the language is direct and student-facing and easy to engage with

The *Persuasive presentation*s chapter includes sections on:

- How persuasion and motivation work in the context of delivering an argument
- How to identify and meet the basic needs of the listener and why we engage in communication
- How to speak ethically and avoid fallacies and why this is important when it comes

to persuasion

 Organising thoughts and practising persuasive presentations (as a group)

Educators should note this chapter was adapted from two other Pressbook sources listed at the top of the page. These sources should be added to the attribution if this content is duplicated or remixed on another platform.

The group dynamics of a school project

- Licence: CC BY-NC-SA 4.0
- Institution/ Platform: eCampus Ontario, Canada/Pressbooks

This resource provides a set of role-plays, discussion questions, and key takeaways. There are five scenes set within a larger narrative of a diverse group of students working together on a class project. These scenes give learners the chance to gain insight into navigating group work at a post-secondary level by introducing concepts that support positive group dynamics and the opportunity to improvise solutions to problems in a low-stakes environment.

The scenes cover important aspects of group work, including:

- Getting to know each other
- Avoiding groupthink and the importance of preparation
- Resolving group conflict
- Maintaining respectful communication, negotiating tasks, and setting an agenda
- The importance of a positive group climate, and setting roles

Each scene is partially scripted, and learners are tasked with improvising the end of the scenario. The lesson plan included in the resource suggests assigning roles to students. Each role play is followed by discussion questions and key takeaways.

These role plays are best suited to use in class,

whether in-person or online, with educator guidance. The resource can easily be adapted to cater to the needs of students, and as the original content is contextualised within a Canadian setting, educators in Australia might find it beneficial to align the scripts with the backgrounds and needs of their learners.

Employability Skills Competency: use interpersonal communication skills

- Institution/Platform: Camosun College, Canada/Pressbooks
- Licence: CC BY 4.0

This OER is a digital textbook organised into chapters covering a variety of interpersonal communication areas. Originally developed to support students studying in the Canadian trades industries, there is a strong focus on

communication as an employability skill. This resource might be especially valuable for students undertaking work-integrated learning (WIL), and vocational education courses. However, the information is broadly applicable to any work setting in which interpersonal skills are required.

The book has six chapters called 'learning tasks', which consist of informative content followed by a self-test.

- 1. Principles of Communication
- 2. Listening Techniques
- 3. Giving and Receiving Feedback
- 4. Assertive Communication
- 5. Conflict Resolution Techniques
- 6. Problem Solving and Decision Making

While the content is foundation level, with language that is appropriate, the resource lacks interactive elements to engage learners. The chapters are text-heavy but do include self-test quizzes with answer keys, which present an opportunity to introduce more interactivity through digital tools like H5P. Alternatively,

these tests could be made collaborative in-class activities. This resource will suit self-directed learners and offers flexibility for educators, who can adapt it and incorporate sections of their choosing into their digital delivery

Working in teams

- Institution/Platform: BC Campus, Canada/ Pressbooks
- Licence: CC BY-SA 4.0

Working in teams is the seventeenth chapter in a digital textbook called Fundamentals of Business Communication, which provides a comprehensive overview of important concepts when communicating professionally in the digital age.

Chapter seventeen begins with learning objectives and reflective prompts to get learners thinking about the topics. There is also an

introduction video. The body of the chapter includes pages called *Positive and negative team member roles* and *Team problem-solving*. There are then 'end of chapter' activities, including a prompt to consider key takeaways, discussion questions, a scenario activity, and a writing activity prompt.

Although the focus of the chapter is on communication in the workplace, not the classroom, the problem-solving strategies are the same ones that would be used in a classroom setting. Additionally, the concepts are valuable for learners undertaking professional projects, work-integrated learning, and those who are close to entering the workforce.

Learners can work through this content individually. However, discussing the 'end of chapter' questions is where the most learning occurs, so a collaborative class component is ideal. If this is not possible, a reflective journal considering the questions could be an option. This resource could be used to add additional context to the 'group dynamics role plays' resource also in this OFR list.

Inclusive Language

- Institution/Platform: ADCET, Australia/ website
- Licence: CC BY-SA 4.0 4.0

This resource, provided by The Australian
Disability Clearinghouse on Education and
Training, is primarily designed for educators,
focusing on the importance of inclusive
communication in tertiary education. Although
crafted with educators in mind, the content is
relevant and valuable for learners, covering
aspects that educators might find challenging to
teach without a reference point.

The resource can serve as such a reference point. It presents well-structured content with clear explanations, supported by diagrams and examples covering:

- Why inclusive language matters
- Fostering diversity and inclusion
- Understanding intersectionality
- Five steps to inclusive language

• Developing an inclusive language guide

The content in this resource will be especially helpful for educators working with students pursuing public-facing roles like teachers, social workers, and healthcare professionals. However, as the resource emphasises, effective communication with diverse audiences is a skill that benefits learners across all disciplines.

There are extra materials included on inclusivity, diversity, and accessibility, including videos, podcasts, and diagrams. These can be integrated into educator's digital delivery, aiding learners' understanding in areas such as intersectionality. and the dimensions of diversity and identity.

Emotional Intelligence

• Institution/Platform: Yale University, US/ Noba website

• Licence: CC BY-NC-SA 4.0

This resource is a digital module on NOBA, an OER platform for psychology-related content. The module, authored by Marc Brackett, Sarah Delaney, and Peter Salovey of Yale University, examines the construct of emotional intelligence, the theories that underpin it, its measurement, and its application in the real world.

The module aims to help learners identify and define key concepts of emotional intelligence, like emotion regulation, expression of emotion, and understanding emotions and how they contribute to learners' relationships, decisions, and overall wellbeing. It comments on the links between emotional intelligence and better job performance, satisfaction, and leadership, as well as responsible decision making, behaviour management, and overall success in educational settings.

The module closes with additional resources and knowledge-check discussion questions. Concepts are explained with clear examples and the tone of the text is informal and learner-friendly, the vocabulary list explaining specialised terminology in the field of emotional intelligence is a helpful inclusion.

The Emotional Intelligence module does not include digital interactive activities, but its textual exercises can be adapted for interactivity. The module would be ideal for self-directed learners who want to understand what emotional intelligence is and how to verbalise its benefits. It also offers educators freely accessible content to spark class discussions and active learning.

Professional Communication in Health Professions

- Institution/Platform: NSCC, Canada/ Pressbooks
- Licence: CC BY-NC 4.0

This OER is a digital textbook for undergraduate

students, guiding best practices in communication in the context of the nursing profession. It addresses communication theory, therapeutic communication and interviewing, and interprofessional communication.

The resource consists of three main chapters, each with multiple, concise pages. Chapters begin with learning outcomes and conclude with key takeaways and references. Several pages contain H5P quizzes to check learners' understanding of the content. There are also contextualised examples, scenarios, and case studies that show the application of communications skills in healthcare.

Chapters include:

 Introduction to Communication and Communication Theory — Explanation of professional communication, communication models (transmission, interaction, transaction), learning communication skills, and theoretical approaches (trauma-informed, relational inquiry, and anti-racist).

- Therapeutic Communication and Interviewing — Introduction to therapeutic communication, client interviews, question types, non-verbal communication, cultural considerations, conversing with different age groups, and addressing language barriers.
- Interprofessional Communication —
 Covers interpersonal and interprofessional
 communication, potential conflicts
 (including harassment) and management
 strategies, tools and resources for further
 development, and reflective practice.

This is a valuable resource for educators working with healthcare students. It can be shared with motivated students who wish to undertake self-directed learning to develop their workplace communication skills. Alternatively, educators can use complete chapters or select contextualised scenarios, case studies, and H5Ps, to integrate into their own delivery. Please note that some content may require adaptation since it is contextualised to healthcare settings in

Canada, and terms or standards may differ to those in other countries.

Business Communication for Success

- Institution/Platform: University of Minnesota Libraries, US/Pressbooks
- Licence: CC BY-NC-SA 4.0

The resource is a comprehensive digital textbook covering written and verbal communication skills in the business field.

The self-contained chapters include learning objectives, introductory exercises, theoretical foundations, real-world examples, key takeaways, and in-chapter assignments. The modular design allows instructors and students to efficiently navigate the material and choose specific sections as needed.

The chapter titles are:

- 1 to 3: Effective Business Communication, Delivering Your Message, Understanding Your Audience
- 4 to 9: Effective Business Writing, Writing, Preparation Writing, Revising and Presenting Your Writing, Feedback in the Writing Process, Business Writing in Action
- 10 to 15: Developing Business
 Presentations, Nonverbal Delivery,
 Organization and Outlines, Presentations
 to Inform, Presentations to Persuade,
 Business Presentations in Action
- 16 to 19: Intrapersonal and Interpersonal Business Communication, Negative News and Crisis Communication, Intercultural and International Business Communication, Group Communication, Teamwork, and Leadership

Learners can use this resource for independent study, and it can also be used by educators in business-related disciplines to supplement and enhance their own course delivery. The chapters are flexible for mix-and-match use, allowing customisation to the educator and learners' needs. It is important to note that many examples are contextualised for readers in the USA, and some links and references may need updating as the textbook was originally published in 2010.

Last updated January 2024. If you notice that a resource in this collection needs updating or know of an open educational resource that should be added to this collection, please contact us at

digital.learning.library@rmit.edu.au

1.1 TRANSCRIPTS

1.1 CRITICAL ANALYSIS -CRITICAL THINKING PROCESS

Step one: Gather the relevant information

Step two: Critically analyse by examining the information closely to understand the importance of each factor.

Step three: Critically evaluate by taking all the facts and information you have and considering the strengths and weaknesses of the information.

Step four: Make a decision based on the insights and outcome of your analysis and evaluation.

1.1 CRITICAL EVALUATION OF SOURCES KNOWLEDGE CHECK ACTIVITY TRANSCRIPT

The scenario

Paola is a first-year university student studying business management. She needs to write a report on the following topic:

"You work for an Australian investment company. Your manager has asked you to investigate the pros and cons of investing in renewable energy initiatives."

To help her investigate her topic, Paola speaks to Maryam, a librarian at her university. She asks Maryam some questions about some of the information she has found.

Source one

Paola to Maryam: "I found this website about the coal

industry. It's called Learn the REAL Truth. Do you think that the author is an authority on the topic?"

An image shows a fictional web page. The URL is learntherealtruth.com.auz and the page says: Learn the REAL truth – come inside and discover why governments everywhere FEAR Cody Barroxx!

Question

Do you think that Maryam will tell Paola that the author of the website is an authority on the subject of renewable energy? Yes or No?

Answer

No.

Maryam's feedback: Actually, Paola, this website looks like it has been created by a conspiracy theorist. I looked at the homepage, and there seem to be many claims the author has made that are quite radical and not backed up by any supporting information. I wouldn't recommend using this website for your assignment. I highly doubt that the author is an authority on the subject.

Source two

Paola to Maryam: "How about this website from the

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Australian Government Department of Climate Change, Energy, the Environment and water that provides information about renewable energy sources in Australia?"

An image shows a fictional web page. The URL is energy.gov.au and the page says: Renewable Energy Consumption. A map shows different percentages in Australian states.

Question

Do you think that Maryam will tell Paola that this website is a reliable source of information? Yes or No?

Answer

Yes.

Maryam's feedback: It's a great idea to read figures from government organisations and you can include those figures in your work as well, as long as you reference them. Generally speaking, government departments and agencies are considered reliable, although I do recommend checking the information carefully with other sources and not solely relying on government information.

Source three

Paola to Maryam: "I did a search on Google Scholar and found

an article from a journal called Journal of Investing. I looked it up, and it seems like it has a good reputation in the investment world. What do you think?"

An image shows a fictional web page. The URL is pubs.rsc.org/en/journals and the page says: Wind energy: green and profitable by Karl Preston. It also has the title of the journal, an option to download the article, and also information including the author, publication date, volume and issue, and the article DOI (digital object identifier).

Question

Do you think that Maryam will tell Paola that this website is a reliable source of information? Yes or No?

Answer

Yes.

Maryam's feedback: *Journal of Investing* is a well-renowned, peer-reviewed journal. That means that all the articles they publish are checked by experts in the field to ensure that the information they contain is valid, accurate and good quality. You can be pretty sure that the information from peer-reviewed articles is reliable and that the authors are authorities on the subject. However, remember to think critically when you read them and don't rely on articles that were published a long time ago.

Source four

Paola to Maryam: "I wanted to use information from this book. It's called 'Clean coal: cleaning up the energy industry' and it's by Prof. Sandra Kimani. I did a search for the author and found out that she was a professor at a Kenyan university until 1993 and that the book was published in 1986. Do you think this is a useful source for my report?"

An image shows a book with the title Clean Coal: cleaning up the energy industry, the author's name, and a picture of coal in a soapy bathtub.

Question

Do you think that Maryam will tell Paola that this book is a useful source for her report? Yes or No?

Answer

No.

Maryam's feedback: It's great that you've done some research on the author. It appears that she was an expert in this area in the 80s and 90s. However, a lot of time has passed since this book was written, so it does not have currency. The energy industry and the environment have changed a lot since then. A more current source would be more useful for your report.

Source five

Paola to Maryam: "I did a Google search and found this article called 'The exaggerated benefits of solar power.' It says the study was conducted by scientists from Kaldan Mining Co. I looked up this company and on their home page it says they own several mines in Queensland. I shouldn't use this article in my report, right?"

An image shows a web page. The URL is caldamlabs.com.au and the page says: Welcome to Caldam Mining Co. Need coal? We've got you covered.

Question

Do you think that Maryam will agree that Paola shouldn't use the article in her report? Yes or No?

Answer

Maryam's feedback: You're right. I would be very wary of studies that were commissioned by companies that may have a particular interest in a topic. For example, Caldam Mining Co. owns and extracts coal. So, releasing a study stating that other sources of energy are not effective is beneficial to their company. I don't think this article would be objective.

1.1 CRITICAL EVALUATION - CRAAP TRANSCRIPT

Currency relates to when the information or resource was created.

Consider:

- When was the information published or updated? Is
 there a date at all? Be careful about using the copyright
 or footer dates this often refers to when information
 on an entire site has been updated, not necessarily the
 page you are looking at.
- If the source is old, is the information still relevant? This can depend on your topic, or the type of information you are using (e.g. historical facts won't change, whereas things like technological information and health information will, and it's important that the information you use is up to date).
- Is it the most recent version of the publication? You

might use a source from 2018 only to realise that there is a 2023 edition of the same publication with updated information.

Relevance relates to whether the source is suitable for your needs

Consider:

- Is the information related to your topic or does it answer your question?
- Who is the audience for this information?
- Is it at an appropriate level for your audience (i.e. not too basic or advanced). Is there jargon and terminology in it that your audience won't be familiar with? Information aimed at a particular audience (e.g. school students) may not be comprehensive enough for your purposes.
- Have you looked at a variety of sources before deciding this is the one you'll use?

Authority relates to the source of the information.

Consider:

• Who created the work? Authors/corporate authors or

publishers?

- Is the author qualified to write about the topic? What are their credentials and affiliations? Are they experienced, educated or an expert in the field? If they're a corporate author, are they a respected, legitimate organisation or company?
- Is there contact information such as a publisher or email address?
- Who is the publisher? Consider the different reasons a publisher may have for publishing information (related to purpose/objectivity) e.g. University Press vs. a commercial publisher vs. a government department.
- For online sources, the URL might reveal something about the author or source e.g. .com .edu .gov .org .net

Accuracy relates to the correctness and reliability of the content.

Consider:

- Where does the information come from?
- Is it website/report/research paper from a government department? These are often considered to be reliable and credible sources of information. They are often primary sources of data. However, as with any other

source of information, it is recommended that you assess the authority, currency, purpose and objectivity of anything produced by governments.

- Is the information supported by evidence?
- Has the information been reviewed? Peer reviewed journals have the most academic credibility.
- Can you verify any of the information in another source or from personal knowledge? Look for a reference list or links to corroborating/verifying information.
- In scientific papers/research, can the research be replicated? Is there enough information about how the information was gathered/analysed (particularly for data)?
- Are there spelling, grammar or typographical errors?

Purpose relates to why the information was created and whether it is objective.

Consider:

- What is the purpose of the information? Why was it created? Some common examples include:
- to try and sell something
- to inform
- to educate

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- to entertain or amuse (satire/parody)
- to persuade
- to offer an opinion or perspective
- Information published to sell a product or advocate a particular point of view can be presented out of context and be influenced by the author's viewpoint.
- If something is created to sell an idea or product, the information is likely to be bias and can potentially exclude information that contradicts its aims.
- Can you detect any bias? Opinion pieces often contain bias, as do advertisements.
- Does the language or tone seem unbiased and free of emotion or does it attempt to appeal to your emotions through the use of emotive language or images? Most academic sources use objective language and specific examples; look for emotionally charged or vague language which may indicate the information is biased or misrepresenting the facts.
- Has information been intentionally or unintentionally excluded? Sources that don't present all facts or cover all perspectives, and ignore contradictory or conflicting information, may be biased and trying to persuade.
 Scholarly, reliable information should be objective and present all sides of an argument.

1.1 CRITICAL ANALYSIS -COMPONENT PARTS OF A PROCESS TRANSCRIPT

Sarawut should also consider the:

- current involvement of residents and their families in the nutritional assessment process
- record-keeping policies at the facility and how clear the information is to new staff members
- workplace culture at the facility and the importance placed on nutritional planning
- ongoing professional development of staff and whether they have access to nutrition professionals
- quality of current feedback systems that collect information about the residents' health
- amount of time allocated for staff to complete nutrition reviews and follow-ups
- technology used to record and track resident nutrition and food intake.

1.1 TYPES OF LOGICAL FALLACIES TRANSCRIPT

Ad hominem

Attacking a person rather than their belief or argument.

For example: 'You really think the Earth is round? I can't believe you would be that stupid!'

Correlation/causation

Incorrectly assuming that one thing is the cause of another.

For example: 'Never get a vaccine. I got one once and the next thing I knew, I was in a coma on life support for two weeks.'

Anecdotal evidence

Using a personal experience or an experience that has been shared with you as the basis of an argument.

For example: 'My friend saw the Prime Minister in a

restaurant, and he said he was so rude to the staff. I can't believe they let people like that run the country!'

Burden of proof

Making a claim and challenging people who disagree to prove it wrong. Placing the responsibility of finding proof on the person who disagrees.

For example:

Person A: Aliens have visited Earth!

Person B: No, they haven't.

Person A: OK then, prove that they haven't.

Appeal to authority

Accepting a claim simply because it comes from a figure of authority, rather than finding facts for oneself.

For example: 'This product is endorsed by a doctor, so it must be healthy.'

Appeal to emotion

Attempting to convince someone by manipulating them into an emotional response rather than using a valid argument.

For example: "I know you've had your leave booked in for a few months... but if you don't swap your days off with me, I won't be able to spend time with my children and I'll have to pay to put them in school holiday care, which they really hate."

1.1 IDENTIFYING LOGICAL FALLACIES TRANSCRIPT

Introduction

Jake has to write an essay on the following topic: "There are many health benefits to eating a vegetarian diet. Discuss." This is not something that they have thought deeply about in the past, so they ask some other people for their opinions.

Jake says:

Hey, do you think humans would be healthier without eating meat?

Person 1

Akamu, Jake's best friend, says:

"C'mon Jake! There is NO conclusive proof that vegetarianism is good for your health. For every doctor that says avoiding meat is good for you, there are another ten that say it's bad for you. Until I see conclusive proof and agreement from ALL doctors, I will keep eating steak."

Akamu's argument is an example of:

- 1. anecdotal evidence
- 2. burden of proof
- 3. ad hominum

Answer

2. burden of proof.

Akamu refuses to believe in the benefits of vegetarianism unless someone else proves that it is definitely effective. Therefore, he is putting the burden of proof on people who do believe in eating a vegetarian diet.

Person 2

Daniyah, Jake's classmate, says:

"Listen, I saw a documentary by a famous scientist – I can't remember his name, but he's really well regarded. He said that avoiding meat leads to some amazing health benefits. I mean, if he says it's true, then it's true because he's a scientist and he made a documentary about it."

Daniyah's argument is an example of:

- 1. appeal to authority
- 2. burden of proof
- 3. correlation-causation

Answer

1. appeal to authority

Daniyah's opinion is based on the views of an expert. However, Daniyah is not sure who the expert was, and she has not done any of her own independent research into the qualifications of the scientist or the topic.

Person 3

Hans, Jake's dad, says:

"Well, I was going to become a vegetarian until your mum's friend, Neha, told me about what happened to her. She said that after a year with no meat she was so tired and weak that some days she couldn't even get out of bed."

Hans' view is an example of:

- 1. burden of proof
- 2. anecdotal evidence
- 3. conspiracy

Answer

2. anecdotal evidence.

This is an example of anecdotal evidence because Hans has based his opinion on information he has heard from another source. In this case, he has not seen this 'proof' with his own eyes and does not know if what Neha said is true or accurate.

Person 4

Eli, Jake's boss, says:

"Vegetarianism? Surely you know that's all a load of rubbish. I thought you were smarter than that! Is that what they're teaching you at university? You should stop wasting your time studying if you're not learning anything worthwhile."

Eli's view is an example of:

- 1. ad hominum
- 2. anecdotal evidence
- 3. conspiracy

Answer

1. ad hominum

Instead of developing an effective counterargument against vegetarianism, Eli has attacked Jake's intelligence.

Person 5

Huerta, Jake's yoga teacher, says:

"Well, I'm healthy and I'm a vegetarian, so having a plantbased diet is obviously good for you."

Question

Huerta's argument is an example of:

- 1. conspiracy
- 2. anecdotal evidence
- 3. correlation-causation

Answer

3. correlation-causation.

Huerta has made an assumed connection between two things without having any real evidence that they are linked.

1.1 COUNTERING LOGICAL FALLACIES

Imagine you meet up with your friend, Cody, and he says:

"There's so much evidence out there that the earth is flat."

Immediately, you feel sceptical about this statement. But how should you handle this situation? Here are some tips.

1. Identify the fallacy

Ask yourself: what is it about this argument that I think is flawed?

For example, you might think:

"The world is flat... I don't agree with that... I know a lot of conspiracy theorists have that opinion... Is that where his 'evidence' comes from?"

2. Stay calm and be respectful

Remember that healthy debate is a good thing- it is how we learn and generate new ideas. By staying calm and respectful, it is an opportunity for ideas to be shared.

For example:

"That's an interesting idea. I have heard other people make a similar argument."

3. Ask for clarification

Asking for clarification can help both parties to avoid miscommunication or confusion.

For example:

"Do you mean that the world is completely flat? And where does this evidence come from?"

4. Present evidence

Do you know anything about the subject? Do you have any facts at hand that could contribute to the conversation and potentially uncover misinformation?

For example:

"Actually, I've just read a book by a geography professor called James Mannan who explains mathematically how we know the world is round."

5. Question assumptions

By questioning assumptions, you are opening the door to debate and offering the person a chance to identify the assumptions that have weakened their argument or led to inaccuracies in their reasoning.

For example:

"You mentioned that there's heaps of evidence. Have you had a chance to examine it yourself?"

6. Present alternative explanations

Do you have any other explanations for the situation? Presenting these could help the other person to see the issue from another angle.

For example:

"Is it possible that this evidence comes from unreliable sources?"

7. Be patient

Entering into a heated argument isn't going to convince the other person that their argument is flawed. They may need time to recognise that the information they have presented isn't correct. Hopefully, this conversation with you will help them reevaluate their argument.

For example:

"I hear what you're saying, but I have to respectfully disagree on this one."

1.1 CRITICAL EVALUATION - CRITICAL THINKING PROCESS

Step one: Gather the relevant information

Step two: Critically analyse by examining the information closely to understand the importance of each factor

Step three: Critically evaluate by taking all the facts and information you have and considering the strengths and weaknesses of the information. This will help you see the big picture.

Step four: Make a decision based on the insights and outcome of your analysis and evaluation.

1.1 CRITICAL EVALUATION IN EVERYDAY LIFE TRANSCRIPT

Here are three everyday uses of critical evaluation.

Choosing a book

You're at the library, looking for a book to read on the tram. You find a few books you're interested in, but you only want to leave with one. You've chosen genres and authors you like, read the synopses on the back covers and some online reviews. You don't want a physically heavy book since you'll have to carry it in your bag, and you don't want anything sad because you don't want to cry on public transport. When it comes to picking just one, you weigh all these factors and choose the most appropriate book.

Buying a new mobile phone

You looked at multiple devices and considered the price and

features. You ended up with two options: a cheaper phone with fewer features, or one a bit more expensive but with longer battery life and more features. You weighed the pros and cons of each option, considered what was more important to you, and decided based on the information you had. This was a critical evaluation!

Seeing through jokes and lies

You're telling your friend about a musician that you love. Your friend says, "I'm actually related to him, you know?" Before your jaw drops and you start asking them to introduce you, you consider the evidence that this is true. The musician is from the UK and your friend was born in Australia. They've never mentioned any family overseas and have never been to the UK. You've also spoken about this music genre many times, and they've never mentioned a connection to this artist. Your friend also looks like they're going to start laughing. Having evaluated the evidence – you know they're being cheeky and trying to fool you.

1.1 THINKING CRITICALLY IN EVERYDAY LIFE

Scenario one

You're waiting for a tram. The electronic timetable says the tram will arrive in one minute, but you can see for miles down the road and the tram is nowhere in sight.

Your critical thinking skills tell you not to believe what the electronic sign says, because you know the tram can't reach you in one minute. You deduce that there's probably a delay and the sign hasn't updated yet, and check the public transport website for more details. Without critical thinking skills, you would believe the timetable without questioning it or analysing the facts around you, and be surprised and confused when the tram didn't arrive on time.

Scenario two

A colleague makes a negative comment about a country

(you've never been to) and its culture and expects you to agree with her.

Without critical thinking skills, you'd simply accept your colleague's opinion as fact. However, you decide not to accept or reject her opinion until you have more information. There's a lot more you need to know before forming your own opinion. Are there other people who have a different opinion? Why would your colleague's opinion be more accurate than theirs? Did a single experience negatively affect her view of an entire culture? Does she have personal bias?

Scenario three

You have been tagged in a post on social media by your older cousin. It says that if you don't comment on the post by midnight and share it with five people, the platform will assume you are an inactive user and deactivate your account.

As soon as you see the post, your critical thinking skills activate! This post seems suspicious. Surely the platform would have sent out messages to every user instead of checking how active people are in this way. Why would they deactivate accounts anyway – don't they get money and data from having more users? What is the source of the post? It doesn't even have any of the company's branding on it. You decide you're not really in danger of having your account deactivated and ignore the post. You've just critically analysed and evaluated

the situation and come to a logical conclusion, without even realising you were doing it.

Scenario four

You've been tasked with choosing a restaurant for dinner with a small group of friends. You recently got a new job, and there's a fancy restaurant you'd like to try. However, one friend in your group is looking for a job at the moment, and another one is worried that she might be laid off soon.

Although it's tempting to organise the dinner at the expensive restaurant you want to go to, you reevaluate your choice of venue after considering the individual situations of your friends. If your friends are worried about the cost, they won't enjoy the meal – in fact, they might not even come to the dinner! You decide to keep looking for a restaurant that will suit everyone's budget.

1.1 THINKING CRITICALLY AT UNIVERSITY

Being critical in lectures

Lectures are a key part of 'big picture' learning in universities. They're often filled with the main theories, ideas and concepts that are the basis of the module or course and are very important in the assessment.

- If there is pre-reading, prepare for the lecture by noting down any doubts you had while you were reading so that you know to listen especially carefully during that part of the lecture.
- In the lecture, create notes that contain more than what the lecturer says include your own questions, doubts, and opinions. Actively question the information as you hear it. What does it mean? Why does it matter? Does it make sense? What questions do you still have?
- After the lecture, review your notes and actively link the learning to other parts of the module or course. You could use a mind map to do this.

- What are the key ideas in the lecture? How is the lecturer using them? What are they not saying? This can include potential links to other theories and ideas.
- What links are there between the lecture and the assessment? This can help you to think through the main ideas and how they are used.
- Can you find areas of the lecture you can argue against, using academic evidence?
- Meet with classmates after the lecture and talk through what you think you heard. This will help to consolidate learning and identify what you did not understand.

Being critical when doing pre-reading

Pre-reading is one of the most important parts of learning at university, yet it's common for students to neglect it. By arriving with background knowledge and understanding, ideally with some prepared questions, you'll be better able to think about the content in the session critically and ask the right questions. Ideas on how to be critical when doing pre-reading are:

- Make notes that include questions you would like to learn the answers to in the learning session (e.g. tutorial, seminar, lecture).
- Meet with classmates to read together or after reading to

- discuss what you have found and things you don't understand yet.
- Ask, why does this reading matter? What key ideas are in the reading? How does this reading link to the taught session to come? These questions will help you to be critical in your reading process.
- For each source, have a look at the author, where and when it was published, what the key ideas are, and what makes them a credible source of information.

Being critical in tutorials

Tutorials are a personalised learning environment in which a student or a small group of students meet with an individual member of academic staff to discuss their learning, to ask questions. Being critical in these sessions is all about having good questions, preparing well and keeping track of your thinking and progress. Ideas for how to be critical in your tutorials are:

- Think of questions to ask in advance. The type of questions will depend on the purpose of the tutorial. By preparing, you are likely to think more deeply about the content of the tutorial and achieve a greater critical level of understanding from engaging in the process.
- Make notes in the tutorial that include questions you can engage with afterwards to prompt you to think more

and consequently, be critical.

- Use the opportunity to ask why a particular concept or idea matters. What does it link to? Why is it on the list of things you need to learn? Asking your tutor this type of question can prompt critical discussion.
- Make a bullet pointed list of what the tutorial was about afterwards. By reducing the content, you are likely to be critical in evaluating which ideas and thoughts really matter.
- Ask questions: Why? What? Why does it matter? What does it link to? What evidence is there for that?

Being critical in labs

Labs are a key element of many higher education programs, especially science subjects. They are about completing tasks, experiments, and the practical application of knowledge. To be critical in labs you need to ask why you are doing what you are doing, why it matters, why you should care about the results, what the implications of the results are, and why exactly you are following the methods you are asked to. Here are some ideas of what you can do in labs to be critical.

• Read about the tasks you'll be doing in advance in advance. Why has each been chosen? Are there alternatives? Why have you been asked to do the particular tasks or experimentation in the labs?

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- Talk with classmates about the labs in advance. Discuss
 what the labs are for, what you hope to gain from them,
 and what the challenges might be.
- How do the labs fit with the big ideas in the course you're taking?
- During the labs, make notes of key questions that may be related to concepts, methods, implications or links to other learning so you can use your time afterwards to further develop your critical understanding.
- Talk about the labs afterwards with classmates to identify learning, links to other parts of the module, and questions you still have.
- If you were asked, 'what is the point of the labs you are doing next?', what would you say? Can you justify them from the point of view of skills, knowledge areas involved, implications of the methods and knowledge used?
- Ask why you are doing each element of the labs. By
 questioning, you will identify links and form critical
 understanding of the methods and knowledge involved
 in the labs, within your subject area.

Being critical when doing academic writing

Academic writing is a key element of university studies. It's best thought of as a one-way conversation with a curious

person; that person cannot ask questions, so your writing must be clear — but it can only be clear if your thinking is clear. To create clear, but critical thinking, you need to invest time in understanding each concept and idea, so you can use them to create a critical argument, answer or judgement that the reader can follow. Here are some ideas on how to be critical when completing academic writing tasks:

- The main skill is to be able to show your critical thinking within your writing by showing your critical processes of analysising, evaluating, and coming to a conclusion. You might make comparisons, consider reasons and implications, justify choices, or consider strengths and weaknesses.
- At each point, think about the questions a reader will have and try to ensure you answer them.
- Use concepts critically. This means showing their limits, how they fit into the whole literature base, and choosing your language carefully to show the level of certainty attached to each idea, relationship, and assertion.
- Ask a friend to read your work with a questioning mindset. If they assume you are wrong, they can question each element to make you prove you are right. This will reveal where more critical understanding is needed in your writing.

Being critical when discussing

your learning with friends and classmates

A key, but often overlooked, element of learning at university level is the critical thinking that happens when talking to friends and classmates in an informal setting. This is one reason university campuses are filled with social spaces. Some ideas of how to be critical when informally discussing learning are:

- Ask the person how they know what they think they know. In other words, get them to consider the source of their understanding. Is it a reliable source?
- Ask the person whether they can give you an example of how or when a concept or theory might be used. This prompts them to apply the idea to real-world settings and different contexts, which generates a more critical understanding of the idea.
- How does X link to Y? By asking a person how one idea
 is related to another, they must examine what that idea is
 and its limits.
- 'Can you tell me about...?' We often develop more understanding through telling or teaching others about our learning. A person answering this question can develop more critical understanding by really having to think through what the core idea is and why it matters.
- Why should I care about X? Having to justify why an

- idea or concept matters prompts critical thinking.
- What if X did not exist? E.g. What if radiocarbon dating had never been developed? By having to identify what a thing does or why it exists in the world, a person needs to think critically about that 'thing'.

1.1 CRITICAL EVALUATION - CRAAP TRANSCRIPT

Currency

Currency relates to when the information or resource was created.

Consider:

- When was the information published or updated? Is
 there a date at all? Be careful about using the copyright
 or footer dates this often refers to when information
 on an entire site has been updated, not necessarily the
 page you are looking at.
- If the source is old, is the information still relevant? This can depend on your topic, or the type of information you are using (e.g. historical facts won't change, whereas things like technological information and health information will, and it's important that the information you use is up to date).
- Is it the most recent version of the publication? You might use a source from 2017 only to realise that there is

a more recent edition of the same publication with updated information.

Relevance

Relevance relates to whether the source is suitable for your needs.

Consider:

- Is the information related to your topic or does it answer your question?
- Who is the audience for this information?
- Is it at an appropriate level for your audience (i.e. not too basic or advanced). Is there jargon and terminology in it that your audience won't be familiar with? Information aimed at a particular audience (e.g. school students) may not be comprehensive enough for your purposes.
- Have you looked at a variety of sources before deciding this is the one you'll use?

Authority

Authority relates to the source of the information.

Consider:

• Who created the work? Authors/corporate authors or

publishers?

- Is the author qualified to write about the topic? What are their credentials and affiliations? Are they experienced, educated or an expert in the field? If they're a corporate author, are they a respected, legitimate organisation or company?
- Is there contact information such as a publisher or email address?
- Who is the publisher? Consider the different reasons a publisher may have for publishing information (related to purpose/objectivity) e.g. University Press vs. a commercial publisher vs. a Government department.
- For online sources, the URL might reveal something about the author or source e.g. .com .edu .gov .org .net

Accuracy

Accuracy relates to the correctness and reliability of the content.

Consider:

- Where does the information come from?
- Is it website/report/research paper from a government department? These are often considered to be reliable and credible sources of information. They are often primary sources of data. However, as with any other source of information, it is recommended that you assess

the authority, currency, purpose and objectivity of anything produced by governments.

- Is the information supported by evidence?
- Has the information been reviewed? Peer reviewed journals have the most academic credibility.
- Can you verify any of the information in another source or from personal knowledge? Look for a reference list or links to corroborating/verifying information. In scientific papers/research, can the research be replicated? Is there enough information about how the information was gathered/analysed (particularly for data)?
- Are there spelling, grammar or typographical errors?

Purpose

Purpose relates to why the information was created and whether it is objective.

Consider:

- What is the purpose of the information? Why was it created? Some common examples include: to try and sell something, to inform, to education, to entertain or amuse (satire/parody), to persuade, to offer an opinion or perspective.
- Information published to sell a product or advocate a
 particular point of view can be presented out of context
 and be influenced by the author's viewpoint.

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- If something is created to sell an idea or product, the
 information is likely to be biased and can potentially
 exclude information that contradicts its aims.
 Can you detect any bias? Opinion pieces often contain
 bias, as do advertisements.
- Does the language or tone seem unbiased and free of emotion or does it attempt to appeal to your emotions through the use of emotive language or images? Most academic sources use objective language and specific examples; look for emotionally charged or vague language which may indicate the information is biased or misrepresenting the facts.
- Has information been intentionally or unintentionally excluded? Sources that don't present all facts or cover all perspectives, and ignore contradictory or conflicting information, may be biased and trying to persuade.
 Scholarly, reliable information should be objective and present all sides of an argument.

1.1 CRITICAL ANALYSIS -ANALYSES IN PROFESSIONS TRANSCRIPT

Cost analysis

A cost analysis examines the cost of something and whether the benefits justify what is being spent. This type of analysis might be completed by professionals such as financial analysts, accountants, project managers, and business analysts working within a range of industries.

Risk analysis

A risk analysis examines the potential for problems which could impact a decision, process, or project. The goal of this type of analysis is to identify the risks and their consequences and figure out whether they can be avoided, and what to do if a problem occurs. Risk analyses can be completed by professionals like risk analysts, risk managers, actuaries, project managers, financial planners, and school safety coordinators.

Environmental impact analysis

An environmental impact analysis looks at how a process or project might damage the environment and ways this impact can be prevented or minimised. It's crucial to working towards sustainable processes. This type of analysis often informs decision-makers and can guide responsible development. Environmental impact analyses are often completed by environmental scientists, engineers, sustainability officers, urban planners, regulatory compliance specialists, and landscape architects.

Market analysis

A market analysis is used to make decisions related to business, marketing, and strategic planning. It examines different aspects of a market, like its size, audience, current trends, and the key players in the market (the competitors). This type of analysis is carried out by professionals such as market research analysts, marketing managers, social media managers, business development managers, product managers, and strategy consultants.

1.1 CRITICAL ANALYSIS -COMPONENT PARTS OF AN ARGUMENT TRANSCRIPT

Argument

"Social media platforms must adopt more stringent content moderation policies to prevent the spread of misinformation, hate speech, and harmful content. By implementing stricter content moderation measures, platforms can foster a healthier online environment, build trust among users, and contribute to a more ethical digital environment."

Argument adapted from AI generated text. OpenAI (2024) Chat GPT [Large language model] accessed February 13, 2024.

Example breakdown of the argument's component parts

Thesis statement

Identify the argument they are making.

The evidence provided

Examine each piece of supporting evidence they have provided in depth (misinformation, hate speech, harmful content). This means looking for other sources and evidence that what they claim is accurate (or inaccurate).

Structure and language

Evaluate the logical flow and coherence of the argument, considering the main argument and the supporting evidence. Does the supporting evidence contribute to the claim? Analyse the language used in the argument for persuasive effect. Has emotive language been used to distract from facts?

Counterarguments

Identify the potential counterarguments (which could include concerns about freedom of speech, or the challenges of defining and moderating content). Does the original argument address and refute any significant counter arguments?

Recommendations and promises

Consider whether the argument's recommendations (strict content moderation) are achievable. What are the challenges to implementing them? What about the promised outcomes? Is there evidence that the recommendations would lead to these outcomes (healthier online environment, more trust) or are they assumptions?

Assumptions

Identify any parts of the argument that haven't been supported by evidence (for example, that more moderation will lead to a healthier online environment).

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1.2 TRANSCRIPTS

1.2 CREATIVE THINKING IN INDUSTRIES TRANSCRIPT

Education

The best teachers use creative thinking to come up with targeted and effective ways to deliver knowledge and engage their students. This might mean:

- inventing activities and games that will encourage learners to have fun while practising the target content
- considering alternatives to traditional methods of assessment
- imagining ways to bring the real world into the classroom and make learning activities more authentic.

Recent innovation in education includes the introduction of virtual and augmented reality activities and considering ways to incorporate artificial intelligence into lessons and assessment.

True or false

The blackboard is an innovation that transformed classroom instruction.

Answer: True. The blackboard, invented in the 19th century, was indeed an innovative teaching tool. It provided a visible surface for writing and drawing and significantly transformed the way information was presented and shared in classrooms.

Health

Medical researchers are often trying to solve problems which have existed for a long time. In order to make advancements in healthcare, they have to use creative thinking skills to consider all pathways and possibilities. This involves being open to considering unconventional ideas and less explored areas of medical research.

Without creative thinking and innovation, many important health discoveries would never have been made. Imagine if we'd settled for the technology that existed in the 1800s...

Surgery would be conducted with rudimentary instruments without the anesthesia we know today. Infection would often occur because our understanding of germs wouldn't be very advanced, antibiotics probably wouldn't have been discovered, and we definitely wouldn't have a COVID vaccine.

What a lot has changed since then! And all of it thanks to innovation and creative thinking by medical researchers, scientists and doctors.

Engineering

Creativity in engineering doesn't mean that standards won't be followed and that engineers will go rogue focusing on their personal artistic expression rather than safety and function.

When engineers use creative thinking, it's often to solve complex design and implementation problems. Without creative thinking skills, the unexpected roadblocks that arise in engineering would bring work to a halt. Engineers need to use creative thinking to be able to imagine things that don't exist yet and find ways around constraints, like time, budget, and materials.

Engineers often use creativity and innovation to develop solutions for environmental challenges. Engineers are at the forefront of developing and improving renewable energy technologies, such as solar, wind, hydro, and geothermal power, as well as energy storage, and sustainable transportation.

1.2 CREATIVE THINKING - BARRIERS TRANSCRIPT

Barriers to creative thinking

- Not having enough time
- Not getting enough quality sleep
- · Feeling stressed
- · Lacking motivation
- Receiving criticism from others
- Censoring your own ideas before they have a chance to grow
- Fearing rejection and what other people might think of your ideas
- Working for an organisation with lots of rules and bureaucracy
- Being micro-managed or given too much detail on how a problem or task should be tackled
- Not having access to sufficient resources or organisational and managerial support.

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1.3 TRANSCRIPTS

1.3 PROBLEM SOLVING: MIGUEL'S 5 WHYS TRANSCRIPT

Miguel's 5 whys transcript

Problem

I need to find a good answer to this question: What made you want to become a radiographer?

1st Why

Why do you want to be a radiographer?

Because I believe it would give me a sense of satisfaction.

2nd Why

Why would it give you a sense of satisfaction?

Because I can help to improve people's medical outcomes.

3rd Why

Why is that important?

Because when a radiographer does their job well, they are part of a team that provides accurate diagnoses.

4th Why

Why is this important?

Because when people are correctly diagnosed, they can receive the right treatment.

5th Why

Why is this important?

Because if they receive the right treatment, they are more likely to recover and have better quality of life.

The result

I would like to be a radiographer so that I can have a positive influence on people's quality of life.

1.3 A BUSINESS PROBLEM: DELAYS AND DISSATISFACTION QUIZ TRANSCRIPT

Which steps do you think Yu should take to most effectively address the company's problem?

- A. Conducting a survey to gather customer feedback on the delays and reflecting on current marketing strategies.
- B. Analysing the production process to identify what is causing the delay and implementing streamlined procedures.
- C. Launching a promotional campaign to increase product sales and revenue and offering a discount for customers who leave a review.

The correct answer is B. Analysing production processes to identify the bottleneck and remove the issues causing the delay goes straight to the root of the problem and prevents it from reoccurring.

The answer is not A or C because they do not address the root cause of the problem. These steps might work temporarily, but in the long term the production delay issue will arise again. The most effective problem-solving process

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in this scenario involves addressing the cause of the problem, which is the issue within the production process. If this production problem is resolved, customers' orders will not be delayed.

1.3 PROBLEM SOLVING: ARI'S 5 WHYS TRANSCRIPT

Ari's 5 whys transcript

Problem

My relationships always end badly.

1st Why

Why do your relationships end badly?

Because my partners get sick of me.

2nd Why

Why do they get sick of you?

Because I never have energy when I am with them. I am too exhausted to do interesting things and I just want to stay home and watch movies.

3rd Why

Why do you never have energy?

Because I work very long shifts.

4th Why

Why do you work very long shifts?

Because I have an expensive lifestyle: expensive car, modern apartment, I eat at expensive restaurants...

5th Why

Why do you have such expensive tastes?

Because I think it will impress the people I meet and make me more attractive to potential partners.

What is the root cause?

I am so preoccupied with appealing to potential partners that I work myself too hard to pay for my expensive lifestyle, and then I am too tired to spend quality time with them.

1.3 PROBLEM SOLVING: JACINTA'S 5 WHYS TRANSCRIPT

Jacinta's 5 whys transcript

Problem

Our group isn't working well together.

1st Why

Why isn't the group working well together?

Because we are not communicating well.

2nd Why

Why are you not communicating well?

Because Juma got angry and called me lazy, and now I am too upset to talk to her.

3rd Why

Why did she call you lazy?

Because I didn't share my work on time, so she assumed I hadn't done it at all.

4th Why

Why didn't you share your work on time?

I had completed the draft, but I wasn't ready to share it. I like to do a thorough job and I needed more time to revise it. She doesn't understand how I work.

5th Why

Why doesn't she understand how you work?

Because I haven't told her.

What is the root cause?

While Juma has been quick to judge and overbearing, I have contributed to this problem by not telling her about my preferred way of working. I mean, how can she know how I like to work if I don't tell her?

1.3 PROBLEM SOLVING: WORKING BACKWARDS TRANSCRIPT

Working Backwards transcript

- 30th Mar: Finished product
- 20th Mar: Make any changes required
- 12th Mar: Test course for bugs
- 1st Mar: Put content into software
- 26th Feb: Apply suggested changes
- 20th Feb: Colleague to check content
- 4th Feb: Create content
- 2nd Feb: Decide: sections, length & software
- 30th Jan: Research topic
- 22nd Jan: Decide on learning outcomes
- 21st Jan: Set project goals

1.3 PROBLEM SOLVING: WORKING BACKWARDS ACTIVITY TRANSCRIPT

Thierry is calculating what time he needs to leave home in order to arrive at his exam on time. He's using the working backwards technique to decide what time he needs to start getting ready so that he's not late for his exam.

He needs:

- 30 minutes to take a shower and get dressed
- 30 minutes to have breakfast
- 15 minutes to walk to the bus stop
- 45 minutes for the bus ride
- 10 minutes to walk from the bus stop to the exam hall.

If his exam begins 11.30am, what time should he start getting ready?

- A. At 8.30am
- B. At 9am
- C. At 9.30am

Answer

B. Approximately 9am. It will take Thierry at least two hours

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and ten minutes to get ready and travel to the exam hall. If he starts getting ready at 9am, he will have enough time to get to the exam hall and maybe even some extra time to chat with his friends before it starts.

1.3 PROBLEM SOLVING: MIND MAPPING TRANSCRIPT

Mind mapping transcript

Step one

Start in the middle of a blank page (or online board), writing or drawing the idea you intend to develop in the middle of the page. It's a good idea to use landscape orientation.

[In the accompanying image, a white page has a circle in the centre of it, with 'Benefits of Cognitive Behavioural Therapy' written inside the circle].

Step two

Develop the related subtopics around this central topic, connecting each of them to the centre with a line.

[In the accompanying image, there are now three extra circles around the initial circle. They each contain a subtopic

and are each connected to the middle circle with a line. The subtopics are:

- treats a range of disorders
- rationalises thought processes
- develops self-esteem].

Step three

Repeat the same process for the subtopics, generating lowerlevel subtopics as you see fit, connecting each of those to the corresponding subtopic.

[In the accompanying image, around the outside of the page, more circles are connected to the subtopics that they relate to. The subtopics and lower-level subtopics are:

Treats a range of disorders:

- Depression / anxiety
- PTSD
- Bipolar & Schizophrenia
- Substance abuse disorders
- Chronic pain
- Sleep, eating & sexual disorders

Rationalises thought processes:

• Awareness of negative thinking

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- Challenges negative thoughts
- Creates more positive thought patterns

Develops self-esteem:

- Develops coping mechanisms
- Teaches realistic ways of thinking].

1.3 PROBLEM SOLVING: FREEWRITING TRANSCRIPT

Freewriting transcript

Image one

Text: The student starts by writing their topic on the page.

[In the accompanying image, a white page has the topic 'Essay topic: what motivates employees?' written at the top-centre of the page].

Image two

Text: Then they begin five minutes of freewriting. At the end of this period. They have made some spelling and grammatical errors, but this is not important.

[The accompanying image shows the page now filled up with the students ideas. The ideas are in points, rather than full sentences].

Image three

Text: Next, they spend some time going through what they wrote. They circle the ideas they like and cross out the ideas they don't think are very useful.

[The accompanying image shows some ideas underlined in green and others crossed out in red].

Image four

Text: Then, they choose one of the ideas they liked from their first freewriting session as the topic of their next freewriting session and repeat the process to develop more ideas.

[The accompanying image shows a new white page with only the heading 'workplace autonomy + employee motivation' written at the top-centre of the page].

1.3 PROBLEM SOLVING: TRIAL AND ERROR TRANSCRIPT

Trial and error transcript

Can you identify in which situations trial and error would be a good problem-solving technique to use? Answer the following questions to find out.

Question one

Marcel is a chef who is creating a new menu for his restaurant. His friends and family have offered to sample his dishes. Do you think that trial and error would be an effective development process for this situation?

- 1. yes
- 2. no

Answer

 yes- Trial and error would be a great way to refine recipes for a menu. This way, Marcel could experiment with different combinations of ingredients and quantities based on the feedback from his friends and family.

Question two

Chris is a nurse at a major hospital. A doctor has asked him to give a patient a medication to treat an issue with their kidneys. To work out how much medication the patient requires, Chris needs to consider certain factors such as the patient's height and weight. Would trial and error be an effective problem-solving technique for this case?

- 1. yes
- 2. no

Answer

2. no- If Chris used trial and error in this case, it could lead to serious consequences. He should use a problem-solving technique that will allow him to find an accurate answer before treating the patient.

1.3 PROBLEM SOLVING: REFLECT TRANSCRIPT

Page one: the problem

Step one:

Think of a problem you had in the past and needed to solve. It can be anything, big or small. The outcome may or may not have been satisfactory.

Example:

While working on a group project at university, my group fell behind with our work and I wasn't sure we were going to get it finished by the deadline.

Page two: describe it

Step two:

Write down a description of the particulars of the problem without going into extensive detail – Who was involved? Where and when did it happen? What were the circumstances that caused the problem?

Example:

The problem was in the second semester of the first year

of my degree. I was in a group with three other students. We saw each other on campus one day each week and we communicated occasionally in a group chat. We'd discussed ideas for the project, but hadn't set specific tasks, so nobody knew what to work on.

Page three: your actions

Step three:

Write a few lines detailing what steps you took to overcome the problem. Did you use any specific problem-solving strategies? Did you have a plan to tackle the issue, or did you improvise?

Example scenario:

When I realised we were nearing the deadline and not much work had been done, I asked all the group members if we could meet on campus the next day to figure out how we could finish the project on time. In that meeting, we created a document with a list of tasks that needed to be done, and together we assigned them to different group members. We also set deadlines for each task. We agreed to meet one extra time per week face-to-face and we created a shared document folder where all of our work could be uploaded.

Page four: the outcome

Step four:

What was the outcome? Were you satisfied, dissatisfied or extremely displeased with the result? Write a few lines explaining the result.

Example scenario:

I was pleased that once I'd got things going by voicing the problem and organising the meeting, the other group members were also keen to make a plan. In the end, we still had to rush to get our work done, and we didn't get the best mark for the project, but we were happy that we'd eventually organised the work as a team and submitted it on time.

Page five: lessons learnt

Step five:

What did you learn from the situation? If you could go back in time, what would you do the same? Would you use a specific problem-solving strategy or principle? What would you change? How can this situation be useful to you in the future?

Example scenario:

I learnt how important it is to be organised from the very beginning of a project, especially for group projects. None of the people in my group were against the idea of doing the work, it was just that nobody wanted to be the first to make a

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plan and set deadlines. I wasn't aware of it at the time, but the approach I took was a bit like the working backwards strategy because we broke the process into parts and set deadlines. I will definitely use that strategy again to set timeline expectations — but I'll make sure to do it earlier in the process!

1.3 PROBLEM SOLVING: JAVIER'S APPROACH **TRANSCRIPT**

Javier decides to use a multifaceted problem-solving approach...

First, Javier reflects on any potential reasons Moe might not be adhering to his medication regimen - is it forgetfulness? Language difficulties? Financial issues? Is he concerned about side effects? Javier then does a thorough assessment of Moe's comprehension through empathetic communication and open-ended questions, trying to uncover anything Moe might be confused or concerned about.

Once Javier has a better understanding of why Moe is not following the regimen, he creates a personalised education plan, tailored to Moe's needs. The plan uses language which is free of medical jargon that Moe might find confusing. Javier includes visual aids to enhance Moe's understanding and memory, such as photos of medication labels.

Knowing the importance of having a support system, Javier reaches out to Moe's family members and discusses the role they can play in helping Moe stick to his regimen.

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Javier also talks to a pharmacist, to see whether it's possible to simplify Moe's regimen to make it less overwhelming.

Javier has covered multiple bases — and his approach ensures that Moe will gain a better understanding of his regimen, and also feel listened to and supported.

1.4 TRANSCRIPTS

1.4 REFLECTIVE THINKING AND PRACTICE - REFLECTIVE THINKING IN EVERYDAY LIFE TRANSCRIPT

You were late to work.

You were late to work because you missed the train. You reflect on why you missed the train and realise it's because you didn't give yourself enough time to walk to the station. You decide to leave five minutes earlier the following day.

You go on holiday, but you end up staying far away from the centre of town.

You reflect and realise that this is because you left it to the last minute to book accommodation, and there weren't any vacancies in town. You decide to book your accommodation in advance next time.

You burnt your toast.

You reflect, and realise the toast burnt because the cooking setting is too high. You turn it down, so that next time your bread will be toasted to your liking.

You host a party for a friend and it's a huge success.

Lots of people at the party ask how you planned such a great event. This prompts you to reflect on the steps you took to organise the party and make sure it would be fun and everything would run smoothly. You decide to replicate the process the next time you plan an event.

You receive a low mark on an important exam.

You review the exam paper to see where you went wrong. You realise that you didn't read the instructions properly and therefore answered the question incorrectly. You make a mental note to read the instructions very carefully next time.

You keep a journal

You reflect on what's happening in your life and how you feel, and you write it down. You might read back over old entries later down the line and reflect on how you felt back then and how things are different now.

You've done one of those 'personality type' tests.

The test asked you questions which required you to reflect on your personality traits, your habits, and possibly your preferences.

You're in a bad mood when you meet up with a friend.

Your friend notices you're not in a good mood and asks you what's wrong. When you start reflecting on the question, you realise you have a list of things that have been upsetting you recently. You and your friend chat about them and talk about possible solutions.

1.4 REFLECTIVE THINKING AND PRACTICE - MODELS OF REFLECTION SLIDESHOW TRANSCRIPT

This page offers information on the following models of reflection:

The ERA Cycle
Discoll's 'What?' Model
Kolb's Experiential Learning Cycle
Gibbs' Reflective Cycle

ERA Cycle

The ERA cycle (Jasper, 2013) is one of the most simple models of reflection and contains only three stages:

- Experience
- Reflection

Action

The cycle shows that we will start with an experience, either something we have been through before or something completely new to us. This experience can be positive or negative and may be related to our work or something else. Once something has been experienced, we will start to reflect on what happened. This will allow us to think through the experience, examine our feelings about what happened, and decide on the next steps. This leads us to the final element of the cycle – taking action. What we do as a result of an experience will be different depending on the individual. This action will result in another experience and the cycle will continue.

Driscoll's What Model

Another simple model was developed by Driscoll in the mid-1990s. Driscoll's 'What?' model is based on the key questions asked by Terry Borton in the 1970s:

- What?
- So what?
- Now what?

By asking ourselves these three simple questions we can begin to analyse and learn from our experiences.

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Firstly, we should describe what the situation or experience was to set it in context. This gives us a clear idea of what we are dealing with. We should then reflect on the experience by asking 'so what?' – what did we learn as a result of the experience? The final stage asks us to think about the action we will take as a result of this reflection. Will we change a behavior, try something new, or carry on as we are? It's important to remember that if everything is working the way it's meant to, we might not need to make any changes after reflecting. This is equally valid as an outcome, and you shouldn't worry if you can't think of something to change.

Kolb's Experiential Learning Cycle

Kolb's model (1984) takes things a step further. Based on theories about how people learn, this model centres on the concept of developing understanding through experiences and contains four key stages:

- Concrete experience
- Reflective observation
- Abstract conceptualization
- Active experimentation

Kolb's model begins with the awareness that an experience we're having is a learning opportunity – either a repeat of

something that has happened before or something completely new. The next stage involves reflecting on the experience and noting anything about it which we haven't come across before. We then start to develop new ideas by asking ourselves guiding questions, such as 'Why did this work so well?', 'What did I do differently this time and what was the result?' The final stage involves us experimenting by applying our ideas to different situations to improve them. This demonstrates learning as a direct result of our experiences and reflections.

Gibbs' Reflective Cycle

The final model builds on the other three and adds more stages. It's one of the more complex models of reflection but it may be that you find having multiple stages of the process to guide you reassuring. Gibbs' cycle contains six stages:

- Description
- Feelings
- Evaluation
- Analysis
- Conclusion
- Action plan

As with other models, Gibbs' begins with an outline of the experience being reflected on. It then encourages us to focus on our feelings about the experience, both during it an after.

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The next step involves evaluating the experience – what was good or bad about it from our point of view? We can then use this evaluation to analyse the situation and try to make sense of it. This analysis will result in a conclusion about what other actions (if any) we could have taken to reach a different outcome. The final stage involves building an action plan of steps which we can take the next time we find ourselves in a similar situation.

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1.4 REFLECTIVE THINKING AND PRACTICE DEVELOPING REFLECTIVE PRACTICE INFOGRAPHIC TRANSCRIPT

Set aside some time

Dedicate time to regular reflection sessions. It might be something like 20 minutes a day, or a longer session weekly, or monthly, but having time set aside will help you build the habit of reflective practice.

Find the right space

If possible, find a quiet and comfortable space without distractions. It might be helpful to leave your usual work or

study space. A change in scenery can stimulate your brain and help you see things from new perspectives.

Choose a reflective activity

Choose an activity that suits you and your needs. There are lots of different ways to reflect. Examples include journaling, writing reports, mind mapping, self-questioning, and discussing experiences with a trusted friend, mentor, or colleague. There are also online tools and apps designed to help with reflective practice.

Decide which model to use

Choose an established reflection approach like Discoll's What Model or the ERA cycle, or create your own. Engage in self-questioning. Ask yourself questions that encourage deep thinking and analysis and try to answer them objectively.

Work through the reflective process

Follow the reflective process by describing, interpreting, evaluating, and planning.

You will start by asking yourself questions like this:

What happened?

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Why did it happen?

What could have been done differently?

What worked particularly well?

What have I learnt from this experience?

What will I do now?

Do I need any resources or support to take action?

Reflect on your experiences and analyse them, looking for patterns and connections. Evaluate your actions, decisions, and their consequences and try to think about the experience from different perspectives.

When you have finished evaluating, plan your next step. Consider what made the experience a success and/or the potential alternative approaches which could work better next time. Identify the course of action for your personal and professional development. It can be very useful to use SMART goals for this stage of the process.

Talk to other people

Talk about your reflective practice with trusted friends, classmates, colleagues, supervisors or mentors, to get feedback and gain different perspectives on your reflections. You don't have to incorporate everything people say into your practice, but be open to new perspectives and constructive criticism. Your reflections and evaluations are also likely to be valuable to the people you collaborate with, and talking through experiences and potential solutions to issues in groups can help

you and others feel like active members of your academic or professional community.

Record the process and your goals

Keep a record by writing down or documenting your experiences, thoughts, and observations. Include both positive and negative aspects. You should include your personal experience but try to approach it objectively. Keeping a record will help if you need to put your reflective practice into writing.

Reflective writing varies a lot depending on the activity. Your personal journal might be a hand-drawn mind map, or freeform and informal writing. It doesn't matter how you note down your reflections in some cases, as long as you can read it later! However, other types of reflective writing that are common at university and in workplaces, like logbooks, reflective essays, and critical incident reports, will need to be more formal and structured.

Implement changes

Once you have gone through the full reflective process and have an action plan, it's time to start implementing changes and making improvements based on your reflections. This

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could be as simple as downloading an app to learn Japanese after writing in your journal that you want to enhance your cultural knowledge. It could also be a significant undertaking, like completely overhauling an outdated process at your workplace after reflective practice sessions show it is preventing efficiency.

Review progress

Reflective practice is all about continuous improvement. Once you put your improvement plans into action, you should regularly check in with your progress, and make adjustments to your goals and expectations if necessary.

1.4 REFLECTIVE WRITING - USEFUL LANGUAGE FOR REFLECTIVE WRITING TRANSCRIPT

General language points

- Use the 1st person ("I", "my" and other personal pronouns) when describing yourself and your responses.
 Reflections are centred on your experiences.
- Use "she", "he", "they", "it" when describing others' roles and responses to events.
- Use proper nouns (names) and 3rd person (Diaz, "the researchers", "the author", "he", "she", "they") when evaluating and including evidence from the literature. This is the same as a traditional essay.
- Use discipline-specific terminology and language that is suitable for discussing your subject with sufficient academic depth.

Language for description

Descriptions in reflective writing are there to set the scene for the following interpretation, analysis, evaluation, and impact. It is important to use clear and precise language to write a concise description.

- Use clear and precise language. Be specific but avoid adding a lot of unnecessary details. "As I approached the main entrance, I saw four young people around the age of 14-16 standing outside." rather than "As walked up the steep stairs and approached the building, I saw a group of people standing around outside who looked to be teenagers."
- Remain as objective as possible, and resist using language that implies bias e.g. "patient X held the nurse's gaze for a few seconds" rather than "patient X glared at the nurse". It may have felt as though the patient was glaring, but was that their intention? Was that how the nurse received the look? Learn to separate description of actions from the feelings they evoke. Feelings should be expressed separately and explicitly from the description of events.
- Use the past tense (usually).
- Use temporal indicators and transitional language. E.g. yesterday, last week, then, subsequently, lastly, etc.

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Helpful phrases are "I saw...", "I noticed...", "I/they said...", "I had...", "I/they did...", "I heard..."

Language for interpretation

When you interpret something you are telling the reader how important it is, or what meaning is attached to it.

You may wish to indicate the value of something using these adjectives:

- · meaningful
- useful
- critical
- useful
- superfluous
- non-essential
- essential
- vital
- beneficial

E.g. 'the accuracy of the transcription was essential to the

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accuracy of the eventual coding and analysis of the interviews undertaken. The training I undertook was critical to enabling me to transcribe quickly and accurately'

You may wish to show how ideas, actions or some other aspect developed over time:



- subsequently
- previously
- over time
- in sequence
- eventually
- · quickly
- slowly
- gradually
- advanced
- prior
- later

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- earlier
- before
- after

E.g. 'Before we could produce the final version of the presentation, we had to complete the research and produce a plan. This was achieved later than expected, leading to subsequent rushing of creating slides, and this contributed to a lower grade'.

You may wish to show your viewpoint or that of others:

- thought
- noticed
- did not think
- considered
- noticed
- expressed
- said
- articulated

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- stated
- intervened
- realised
- expected
- was/were of the opinion that (xxx)
- did/did not do something

Each of these could be preceded by 'we' or 'I'.

E.g. 'I noticed that the model of the bridge was sagging. I expressed this to the group, and as I did so I noticed that two members did not seem to grasp how serious the problem was. I proposed a break and a meeting, during which I intervened to show the results of inaction.'

Summary

There is a huge range of language that can be used for interpretation, the most important thing is to remember who your reader is and be clear with them about what your interpretation is, so they can see your thought process.

Language for evaluation

Reflecting is fundamentally an evaluative activity. A

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skillful reflective writer is able to use appropriate language to clearly express their evaluative thinking to the reader.

Language to show how significant something is:

- most importantly
- · crucial/crucially
- significant/significantly
- the principal lesson was...
- it is imperative that...
- consequential
- fundamental
- X was irrelevant to the...
- insignificant
- a critical aspect...

In each case the language is quantifying the significance of the element you are describing, telling the reader the product of your evaluative thought. For example, 'when doing teamwork, I initially thought that we would succeed by setting out a plan and then working independently, but in fact, constant

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communication and collaboration were **crucial to success**. This was the **most significant thing** I learned.'

Language to show the strength of relationships:

- X is strongly associated with Y
- X is directly related to Y
- A is a consequence of B
- There is a probable relationship between...
- A causes B
- C does not cause D
- A may influence B
- I learn most strongly when doing A

In each case the language used can show how significant and strong the relationship between two factors is.

For example, 'I learned, as part of my research methods module, that the accuracy of the data gained through surveys **is directly related to** the quality of the questions. Quality can be improved by reading widely and looking at surveys in existing academic papers to inform creating your own questions'

Language to evaluate your viewpoint:

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- I was convinced...
- I have developed significantly...
- this changed my perspective...
- Hearned that...
- The most significant thing that I learned was...
- Next time, I would definitely...
- I am unclear about...
- I was uncertain about...
- I was surprised to learn that...

These language choices show that you are attaching a level of significance to your reflection. This enables the reader to see what you think about the learning you've achieved and the level of significance you attach to each reflection.

For example, 'when using systematic sampling of a mixed woodland, **I was convinced that** method A would be most effective. However, in reality, it was clear that method B produced the most accurate results. **I learned that** assumptions based on reading previous research can lead to inaccurate predictions. This is very important for me as

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I will be planning a similar sampling activity as part of my fourth-year project'

Summary

Evaluating is a significant element of reflecting. You need to evaluate the outcomes of the activities you have done, your part in them, the learning you have achieved and the process/methods you used in your learning. It is important that you carefully use language to show the evaluative thinking you have completed to the reader.

Language for analysis

When reflecting, it's important to show the reader that you've analysed the tasks, outcomes, learning and all other aspects that you're writing about. In most cases, you are using categories to provide structure to your reflection. Some suggestions of language to use when analysing in reflective writing are below:

Signposting (making it clear to the reader) that you are breaking down a task or learning into categories:

- An aspect of...
- An element of...
- An example of...
- A key feature of the task was... (e.g. teamwork)

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- The task was multifaceted... (then go on to list or describe the facets)
- There were several experiences...
- 'X' is related to 'y'

There may be specific categories that you should consider in your reflection. In teamwork, it could be individual and team performance, in lab work it could be accuracy and the reliability of results. It is important that the reader can see the categories you have used for your analysis.

Analysis by chronology:

- Firstly,
- Over time,
- Subsequently,
- At first,
- Consequently,
- Initially,
- Later,
- In Stage/Phase 1, (2, 3 etc.)

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• On day/week 1,

In many tasks the order in which they were completed matters. This can be a key part of your reflection, as it's possible that you may learn to do things in a different order next time.

Analysis by perspective:

The following language choices show that you are analysing purely by your own personal perspective. You may provide evidence to support your thinking, but it's your viewpoint that matters.

- I thought...
- I did not think...
- I learned...
- I felt...
- I considered...
- I experienced...

These next language choices show that you are analysing by making reference to academic learning (from an academic perspective). This means you have read or otherwise learned something and used it to form expectations, ideas and/or predictions. The reader needs to know what has informed our reflections.

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- What I expected from the reading did not happen...
- The Theory did not appear in our results...
- The predictions made were not fulfilled...
- The outcome was surprising because... (and link to what was expected)
- My experience aligned with the ideas put forward by...
- I noticed connections between my experience and the theories from class...
- The concepts I learnt in (xxx) shed light on...
- I found that the theories we studied provided a framework to make sense of...

These final language choices show that analysis is being completed from a systems perspective. You are telling the reader how your learning links into the bigger picture of systems, for example, what an organisation or entity might do in response to what you have learned.

- Organisation X should therefore...
- A key recommendation is...
- I now know that organisation X is...

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Theory A can be applied to organisation X

Summary

Analysing is a key element of being reflective. You must think through the task, ideas, or learning you are reflecting on and use categories to provide structure to your thought. This then translates into structure and language choices in your writing, so your reader can see how you have used analysis to provide sense and structure to your reflections.

Language for exploring outcomes

A key element of writing reflectively is being able to explain to the reader what the results of your actions were. This requires careful consideration of the language you use so that what you write reflects the evidence of what happened and clearly conveys what you achieved or did not achieve. Below are some ideas and prompts of how you can write reflectively about outcomes.

Expressing uncertainty when writing about outcomes:

- It is not yet clear that...
- I do not yet (fully) understand...

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- It is unclear...
- It is not yet fully clear...
- It is not yet known...
- It appears to be the case that...
- It is too soon to tell...
- The implications of this are not yet clear...
- One aspect that remains unclear is...

Often, in academic learning, the uncertainty in the outcomes is a key part of the learning and development that you undertake. That's why it's vital that you explain this clearly to the reader, making careful choices in your language.

Writing about how the outcome relates to you:

- I gained (xxxx) skills...
- I developed...
- I achieved...
- I learned that...
- I found that...

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- I acquired skills/knowledge...
- I now recognise the value of...
- The experience/task/process taught me...
- The experience has shaped/changed my perspective on...
- Through this process, I came to realise...
- The task pushed me to develop my (xxx) skills...

In each case you can add in words like, 'significantly', 'greatly', 'less importantly' etc. The use of evaluative adjectives helps you express to the reader the importance and significance of your learning in terms of the outcomes achieved.

Describing how you reached your outcomes:

- Having read....
- Having completed (xxx)...
- Having reflected on (xxx)...
- I considered/reflected on
- I analysed...
- I applied...

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- I learned...
- I realised/discovered
- I experienced...
- Through the process of (xxx), I was able to...
- After deep reflection and analysis, I...

This gives the reader an idea of the nature of the reflection they are reading. How and why you reach the conclusions and learning that you express in your reflective writing is important so the reader can assess the validity and strength of your reflections.

Projecting your outcomes into the future:

- If I completed a similar task in the future I would...
- If I were to encounter this situation again, I would...
- In similar situations, I will apply what I have learnt from...
- Having learned through this process I would...
- Next time I will...
- I will need to develop.... (in light of the outcomes)

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- Next time my responses would be different....
- Based on insights gained from this experience, I intend to...
- In future, I will take into account...
- Moving forward, I will make changes to...

When showing the reader how you will use your learning in the future, it's important to be specific. Check the task instructions carefully to see what you are expected to reflect into the future about.

Summary

Reflecting in academic writing on outcomes can mean either the results of the task you have completed, for example, the accuracy of a titration in a Chemistry lab session, or what you have learned/developed within the task, for example, ensuring that an interview question is written clearly enough to produce a response that reflects what you wished to find out.

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The general language points and language for description

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1.4 REFLECTIVE WRITING - TYPES OF REFLECTIVE WRITING TRANSCRIPT

Journal entries

A journal is where we can document our experiences, thoughts and feelings for our future selves. For most people, journaling is a deeply personal activity and entries are intended only for the eyes of the writer. There is no 'right' way to write a journal entry. It can be in ordered paragraphs or freeform and unstructured, a list, or a collection of notes and quotes – anything else that works for the writer.

Some people make journaling a part of their daily routine, and others only write when there's something weighing on their mind. The experience of writing down all your feelings can be cathartic and enlightening. Fundamentally, personal journals are a safe space to reflect and explore our thoughts and ideas.

Blog posts

A blog post is similar to an online journal entry, except that it is usually intended to be read by others. It is possible to keep private blogs, but they're generally written for an audience, who might be a handful of friends and family or thousands of dedicated readers all around the world. There are even people who earn an income from this type of reflective writing because their blogs are so popular.

As blog posts are written to engage and inform an audience, they are more structured than a private journal. There are many bloggers who document their self-development journeys and write about what they've learnt from their challenges. Some people might reflect on why a family member's recipe is important to them, and others on what they like or dislike about an overseas trip they're on. These are all examples of reflective writing!

Reflective essays

Reflective essays are academic writing tasks that involve reflecting on an experience and documenting what was learnt from it. They are common assessment tasks and hurdle requirements in many disciplines and are an important part of most professional placements in education, psychology, nursing, and more.

Like a regular essay, a reflective essay should use formal

language, follow a logical structure, and be written in paragraphs with topic sentences. But unlike other essays, which present factual information without any personal experiences as evidence, reflective essays require the writer to include their lived experiences and feelings, analyse them, and detail what they've learnt. In a reflective essay, it's common to see phrases like "I was surprised to learn" and "I will take a different approach in future," which would be out of place in an argumentative essay, for example.

Research reflections

When researchers are working on a project they will often think about the way they are working and how it could be improved as well as considering different approaches to achieve their research goal. They will often record this in some way such as in a lab book and this questioning approach is a form of reflective writing.

Reflective writing encourages researchers to critically analyse their experience and evaluate the effectiveness of their research process, by documenting their progress and challenges as they go. Keeping consistent research reflections can help researchers see what worked and what didn't, and adapt their process for the next stage of their project. It also provides a body of documentation for future papers, projects, or collaboration.

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Professional Placement Reflections

Professional experiences are an integral part of many higher education courses. Depending on the discipline and institution, they might be called a professional placement, an internship, practicum, or work-integrated learning (WIL). They involve working in the field you're studying for a set amount of time to gain experience and insight.

Students taking part in professional placement often write reflective tasks as part of their assessment. You could, for example, be required to reflect on a lesson you have taught (education), a medical procedure you have seen carried out (medicine and nursing), a marketing pitch you have witnessed (business and marketing), or how you approached time management while writing multiple articles for a magazine (journalism). This documentation shows your mentors and educators that you are able to apply theoretical knowledge from your course successfully in a professional setting.

Peer Feedback

Peer feedback involves critically evaluating the academic or

professional work of your peers, who could be your classmates or colleagues. This is done by carefully examining the work of a peer, while considering the objectives of the task they have completed. You will reflect on what your peer has done well, and where they've missed the mark and why. An important part of peer review is writing feedback for your peer to read and learn from, with comments which are justified and backed up with examples.

Peer feedback is delivered in many different ways, including comments on a shared document, an email or discussion board post following a set template, or notes entered into a digital feedback tool like Feedback Fruits. In the workplace, peer feedback might just be a few chat messages, or part of a formal process. Whatever the form in which it is delivered, written feedback requires reflective thought.

Job Applications

Preparing for and writing job applications contain elements of reflective writing. You need to think about the experience that makes you suitable for a role and this means reflecting on the skills you have developed and how they might relate to the specific role. Writing an application involves expanding on what you have done and explaining what you have learnt and why this matters – key elements of reflective writing.

Many roles require a written response to **key selection criteria (KSC).** These criteria describe the specific

qualifications, skills, abilities, and knowledge an applicant needs. Applicants need to reflect on their experiences to choose the best examples of how they successfully meet the criteria. It's important for applicants to explain how they've succeeded in past situations, and if you've been using reflective practice, you'll already have the insight and the answers.

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Critical Incident Reflection

The structure and style of critical incident reports vary across disciplines, but many involve reflective writing. A placement student or practitioner will do this type of writing to document an incident, by evaluating a problematic situation, or something that has made them question their knowledge, actions or beliefs. In a clinical setting, this could include an unexpected medical outcome, an unpleasant interaction with a patient, or an ethical dilemma. At university, students might be asked to write critical incident reflections on situations which have occurred during their classes or professional placements.

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As these documents are generally written to be read by colleagues, mentors, and work supervisors, appropriate language and structure is important. A critical incident reflection will give the necessary amount of detail to describe the incident, but most of the task will focus on analysing and evaluating the incident.

Logbooks

Logbooks are like professional diaries. They're records or journals kept in certain occupations to track incidents and notable happenings. They allow professionals to keep a consistent and chronological account of activities, events, and observations which can be referred to later on and used to support collaborative work. They don't have a standardised structure, but they are usually sorted by date and are sometimes organised into categories.

Logbooks are commonly used in aviation as a place for pilots and trainees to record things like the weather, or departure and arrival times, and also reflective comments like what might have caused a delay, and how this could be prevented in future. Scientists also use logbooks to record their findings and data, as well as to reflect on their process and their feelings about their research.

Project Reflections

In most workplaces, a review is undertaken when a project is completed, and project members and management reflect on the project from start to finish. The information from this review is documented and generally includes the project's objectives, its successes and challenges and what contributed to both of these factors, the project's impact, and recommendations for future projects based on the findings of the review. This process provides valuable insights for future projects.

At university, you might need to write a project reflection after doing a group assessment. This might include information about how your group divided up the work and why, how collaborative sessions were carried out, and any communication or time management issues that arose. The most important part of this type of reflective writing is showing that you have learnt from this experience and that you will apply these learnings to future projects.

1.4 REFLECTIVE PRACTICE IN ART AND DESIGN - AN ARTIST ON REFLECTIVE PRACTICE TRANSCRIPT

Blackaeonium is an Australian multidisciplinary artist, archivist, and digital media developer who employs both analogue and digital materials in her work. She has exhibited her art internationally in physical galleries and virtual spaces. In this interview, **Blackaeonium** talks about how she uses reflection in her creative practice.

Q1. As an established artist, how do you incorporate reflection into your creative practice?

A1. I have formal and informal methods of reflecting on creative practice, and it's quite messy.

Informally, I'm often thinking about a current project multiple times a day, so I would use whatever is on hand to document ideas or thoughts that arise – which could be writing or drawing in hard-copy notebooks or using a notes app on my mobile phone. I also email things to myself or take photos. More formally, I keep a hard-copy visual journal where I try to collect all the informal and random things in one place. I have also used a private blog to record and document projects, and I created an experimental archival system for longer-term documentation of creative work – not just finished pieces, but the working files and code that was used for certain projects.

It's useful to look back at past work to inform future work. Being able to look at your creative practice over a number of years often reveals patterns and underlying concepts or themes that repeatedly come through. You can use this information in new work, and it helps to understand your processes and habits, and where you might need to expand or grow your practice into new areas. It's good to reflect on the direction you want your practice to take – you may want to try different mediums, or collaborate with someone, or change your conceptual framework.

Another type of reflection that can have an impact on your work and how you view your practice is writing an artist statement. I don't usually write one without a specific purpose such as for a new project, to update my website, or submissions for exhibitions, grants, etc. Each time I write one, I need to reflect on the current state of my practice – each time it's a

little different. I rarely use the same statement twice, or for more than a year or so.

Q2. How has your reflective practice changed over the years?

A2. I originally started out as a painter, but as my practice expanded to include a lot of digital media, and fabric and installation work — the reflective practice had to expand to be able to document different forms of creative work, and my more complex working methods and processes. I certainly use more digital media in my reflective practice now — as I do in my creative work. I'm probably better at recognising what to document, but I'm still not always organised about it, and continue to use multiple methods to reflect and document.

Q3. Can you share an example of a time when using reflective practice had a significant impact on a specific project or piece of work?

A3. I completed a PhD by project about 10 years ago, and reflective practice was a necessary and important part of that.

Working on a very large research project over a number of years requires a lot of documentation and tracking your progress so you can then reflect on what's working and not working. Some parts of my project were failing at various phases, so I had to change direction and try different things to make it work — which it ultimately did.

Part of completing a PhD means developing very sound and rigorous academic methods and practices including documenting reflections as evidence of the research. Your project might completely fail, but you could still successfully use your project research to complete your PhD if the outcomes answer your research questions.

I created a blog for my PhD which was part of the project work I submitted as evidence of my research. It was a very useful tool for my creative practice too because I could search for topics or keywords and see all the content for a particular thing I was working on at the time. I also used the blog to document and backup code I was writing — which saved a lot of time when I lost something or corrupted a file and needed to recover it.

Q4. Do you have any tips for art and design students on starting their own reflective practice?

A4. The most important thing is to reflect often and regularly

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— make it a habit. And document it somehow because you won't remember your thoughts later. It doesn't matter what format you use to document — it could be a visual journal or a blog, or both. It could be text, image, video, audio, or combinations of these. The main thing is to keep updating it often, and don't be precious about what you put in there. Bad ideas, half-finished things, or failed artworks can be inspiration for another project at some point.

1.4 REFLECTIVE PRACTICE IN ART AND DESIGN - EXAMPLES OF REFLECTIVE ACTIVITIES TRANSCRIPT

Reflection is used in a multitude of ways in art and design. The text below gives examples of activities that you might do as an art or design student that involve reflection.

Write a reflective journal or blog

Example: Peyton writes a blog about her experiences in art and design. She started her blog a few years ago in high school as a place to share her thoughts on design, her own work, and other work she's interested in. Now, she's also using it to write about her latest digital design project at uni. She likes to go back through her blog archive and see how her work has changed over the years.

Set professional development

goals

Emma is an industrial design student who hasn't been feeling very motivated lately. She decides to create some academic and professional goals to give herself something to focus on and work towards. She reflects on her current skills, strengths, weaknesses, what she values most in her field, and what she is passionate about. This helps her figure out what she'd like to achieve in the short and long term, and the areas she needs to work on to reach these goals.

Write a reflective essay

Lee is taking a class on exhibiting artwork and one of the assessment tasks is to write an academic reflective essay. Lee is required to write about their experiences with art exhibitions as a viewer, and how these experiences have impacted their approach to showcasing their own art. Lee will use formal language and follow a reflective model structure to analyse and evaluate their own feelings about the exhibitions they've seen, discuss how theories explored in class align with their experiences, and comment on how this will impact their future choices as an exhibiting artist.

Receive peer feedback

As part of a communication design assessment, Huy writes an audience analysis report to show that he understands the target audience of his (fictional) client. Huy's classmates do the same task, each for a different audience. When they have finished their first drafts, the students in Huy's class are paired up and they review each other's work. Huy's reviewer gives him some constructive criticism as well as plenty of positive feedback. Huy considers the feedback carefully and reflects on why he fell short in some areas and which he should act on. This will help him improve his analysis before submission and write an even better draft next time.

Review the challenges and successes of a group task

Tan is doing a group assessment with some of his classmates in their game design studio course. They've been tasked with redesigning an existing game to improve the user experience and user interface. The final part of the assessment is writing an individual writing task commenting on how they worked as a team. Tan answers a series of reflective prompts about how they approached the assignment, the challenges they faced and how they reacted, and what they could have done differently to make the group work process more effective.

Write a Studio Knowledge Object reflection

Taylor is taking part in a landscape architecture design studio course called Urban Greening: Sustainable Environments. Her main assessment for this course is a Studio Knowledge Object (SKO). For the SKO, she puts together a proposal on how an urban space could be redeveloped to create a public park. Taylor does a site analysis, considers and researches the needs of the community, and uses technology to develop plans and mock-ups. She writes a reflective task to accompany her studio knowledge object. This reflection records her learning and the insights she gained from going through this practical design process.

Write an artist statement

Peyton is submitting an exhibition proposal for a digital artwork she has created. If her work is accepted, it will be her first exhibition as a professional artist. As part of the submission, Peyton is required to write an artist statement. To do this, she needs to reflect on her creative intentions, artistic process, and motivation, and articulate how each part came together to create her sculpture. Reflecting deeply on her work, influences, and motivations will help Peyton write a meaningful artist statement.

Write a reflection on a workshop or exhibition

Taylor recently attended a workshop on sustainable design practices. Her teacher has asked her to write a reflective piece on the workshop to show what she has learnt and how it can be applied to her own practice going forward. Taylor briefly describes the experience, writes about what she expected from the workshop, the things that surprised or left an impression on her. She also includes examples of how what she has learnt will influence her future work, and the challenges or concepts covered in the workshop that she plans to explore further in the future.

Discuss your work with a teacher or mentor

Tan is doing a work-integrated learning (WIL) placement with a team developing VR learning experiences for primary school students. Tan has regular meetings with the team leader (his mentor) to reflect on his work and discuss challenges. His mentor gives him feedback on his contribution to the design project and collaboration with the team. Tan reflects before, during, and after these meetings; beforehand, he considers what he wants to discuss with his mentor; during the meeting, they discuss why issues might have arisen; and afterwards, Tan

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reflects on the feedback his mentor has given him and how he can implement suggestions in the future.

Include reflections in your portfolio

Lee is working on their ePortfolio, which is a collection of samples of their work and accompanying text that explains the work and the skills and knowledge Lee gained from producing it. Lee has a 'blog' section on their ePorfolio, where they have included reflections on design studios and workshops they have attended, the work they have created, and the things they've learnt through trial and error.

1.4 REFLECTIVE PRACTICE IN BUSINESS - EXAMPLES OF REFLECTIVE ACTIVITIES IN BUSINESS TRANSCRIPT

Examples of types of reflection you're likely to do in your studies and future career:

Write a reflective journal or blog

A common task for students undertaking internships, industry placement, or work-integrated learning is to write a reflective journal or blog. This generally involves writing about their work experiences and what they have learned, how their knowledge from class is relevant, and what they'll do in similar situations in the future.

Film a reflective vlog

In some courses, students film and upload reflective vlog (video blog) on their experiences. This could be a weekly reflection on what they learnt during work experience, or it might be a discussion on what they gained from a uni course over a teaching period.

Receive feedback from your peers, educators, mentors, coaches, and managers

You get the most out of the feedback by reflecting on it – considering its value and how you can apply it to future work. It's easy to react defensively to criticism, but if it is constructive feedback, you'll gain much more from reflecting on it and looking at things from other perspectives.

Write an academic reflection

An academic reflective writing task often takes the form of an essay. The essay might be on a learning experience, a course, or a specific question about your learning. You will link your theoretical knowledge and the academic sources and theories you have studied during the course with your personal experience and reflections.

Write or film reflections on learning for ePortfolio

ePortfolios showcase the experiences you've had and the skills you've developed. During your course, you'll collect items to include in your ePortfolio like project plans, photos, videos and presentations you've created, and feedback you've received. Reflections give these items context, by explaining the experience, what was learnt, and how it helped you develop your skills.

Demonstrate how classroom knowledge was used in a professional setting

When you do your internship or professional placement, you'll have the opportunity to see how what you've learnt in class is practically applied in the real world of work. A common reflective task for students is to discuss or write about how they felt their classroom learning aligned with their professional experience.

Write a reflection on a case study

Case studies simulate real-world scenarios that students can learn from. During your studies, you might need to reflect on

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the decisions made by an individual or a company, analyse and evaluate the outcomes, and propose alternative strategies they could have used. This helps you understand the complexities of the topic.

Report on the 'lessons learnt' of a project

Projects with defined conclusions give you the opportunity to reflect and report on the successes and challenges of the project, the lessons you learnt along the way, and what you'd do differently next time. These reflections can guide future projects to greater success.

Comment on a group assignment

Collaboration is an important part of working in business. Courses often use group assessments to simulate workplace collaboration. You might be asked to reflect on how your group worked together, and where there were challenges. This helps you understand group dynamics and demonstrates your learning to your educator.

Discuss a mistake or something which went wrong

Turning mistakes or 'failures' into valuable learning experiences is one of the biggest benefits of reflective practice. You'll do this as both a student and a professional. Reflecting on what went wrong during an assessment or work process can lead to valuable insights which can prevent the same thing from happening again.

Write about what you learnt from a guest speaker in class or by attending an industry meeting

Hearing about professionals' authentic experiences in the business world is a great learning opportunity. You can get more value out of the experience by reflecting on it and writing about what surprised you, what intrigued you, how your understanding has changed or grown, and what actions you'll take based on the experience.

Plan and review your career goals

Creating and monitoring SMART goals is a great example of

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using reflective practice to reach your career objectives. Reflecting on how coursework, experiences at uni and professional experience, and your current skills align with your professional goals will help you see the areas you need to work on and plan your next steps.

Consider team problems to improve leadership strategies

You might encounter situations in your career when you're in a leadership position and problems arise with your team members or employees. Reflecting and planning a strategy which considers the problem from different perspectives will help you in situations like this. Taking time to reflect on the causes of an issue is integral to good leadership.

Have a performance review

Performance reviews are a chance for managers to talk to employees and give them advice and feedback on their professional objectives and progress. Being able to reflect on your strengths and weakness and what you need to do to succeed will help you during your performance reviews and give you a better chance of applying for promotions.

1.4 REFLECTIVE PRACTICE IN BUSINESS - REFLECTIVE PROMPTS IN CONTEXT TRANSCRIPT

Asking the right questions: reflective prompts in context

Reflective prompts for Carlos

- Have I made an effort to check-in with everyone on my team in the last two weeks?
- Is anyone starting to show signs of burnout? Has anyone's situation changed lately?
- Have I said or done anything to give my team the impression they can't ask me for help?
- How are motivation levels? Are there any successes we could celebrate?
- What were the last concerns anyone in the team expressed? How did I react to their concerns?

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 Are team members using the official communication channels set up for the project?

Reflective prompts for Zeke

- What were the points of the speaker's presentation that resonated with me the most?
- What aspects of the speaker's career would I like to emulate?
- How can I learn more about the things mentioned in the talk?
- How did the speaker's message align with my own personal values? Are these the values I want to build my career on?
- Did the talk provide any opportunity for taking action or networking, like a social media group or a volunteer opportunity?
- What adjustments can I make to my current plans to bring them more in line with the things that excited me about this talk?

Reflective prompts for Linh

- What are my core values in business? Am I doing business in a way that respects them?
- What was my original vision? Am I on track to make that vision a reality?

1.4 REFLECTIVE PRACTICE IN BUSINESS - REFLECTIVE PROMPTS IN CONTEXT TRANSCRIPT | 417

- Are there adjustments I can make to my business to realign it with my original vision or my new one?
- What specific aspects of my business am I unhappy with? The clients? The work? The work-life balance? Finances?
- What milestones have I achieved in the last year? Have I given myself the space to celebrate them and reflect on my successes?
- What else is going on in my life that could be affecting my feelings about my business? Could there be an outside influence on how I'm feeling?

1.4 REFLECTIVE PRACTICE IN BUSINESS - TED TALK VIDEO TRANSCRIPT

Reflective practice in context: Business

Video Transcript: TED Talk given by Paul Catchlove – 'The habit that could improve your career'

I wrote this journal entry in 2013. "I've been sleeping restlessly for months. There's a constant feeling of tension in my body. I love ministry as a Catholic priest, the opportunity to share my faith with people and support them as we journey through life together. But I have a desire to share my life with another person. I knew, in discerning ministry, that celibacy, not getting married, was part of the package. But I don't know if I can do this any longer. I'm rarely alone, but I feel bitterly lonely." I wrote this when I was on the cusp of making one of the biggest and most significant decisions of my life: whether to leave ministry as a Catholic priest.

I think my life has been a reasonably unique and unusual one. Now in my early forties, I've had careers as an opera singer, a Catholic priest, a corporate lawyer, and now, a management consultant.

(Laughter)

And when people hear the careers that I've had, the most common question I get asked — maybe the one that's on your mind — is, "What on earth is the connection amongst it all?"

(Laughter)

Through all of these changes, through all of these careers, one constant has been present: the practice of reflection. Now people may think that reflection is something that happens in a dark, private room by candlelight or flashlight, to purge one's deepest, darkest secrets. But I want to bring this practice out of the dark and into the light. I want to share how this practice can help our everyday lives, and especially our work lives. I want to share how this practice helps to improve performance, to make better decisions, both big and small, and to build better relationships.

Interestingly, in a 2020 survey of some 4,000 respondents, conducted by BCG and BVA, the question was asked, "What makes a good leader? What are their main qualities and skills?" Notably, possessing a good capacity for reflection was listed as one of the top five skills, the others being empathy, listening, consideration and team development. Reflection is about learning. It's about looking at the events of our lives without judgment, but with a critical

lens. I really like the way leadership professors James Bailey and Scheherazade Rehman describe it: "It requires taking an honest moment to look at what transpired, what worked, what didn't, what can be done and what can't. Reflection requires courage. It's thoughtful, and it's deliberate."

So how do we do this, then? Let's take a look at sports. I grew up in Australia, and one of the most popular games played was cricket. Consistent high performance from batters, bowlers and fielders is essential. But given it's a team sport, it's not just about how ... the individual performs, but about how the team performs collectively together. Cricketers reflect during a game, after a game and over time. During a game, they might think about a missed catch or how they could bat or bowl better the next delivery. After a game, they might come together to watch video replays, to look at what worked and what didn't, which might differ from what they actually experienced during the game itself. And then, over time, they might look to the patterns of their wins and losses, to glean even more meaningful conclusions and insights. The same process can and should be used in the workplace, and I don't think we need to watch video replays of our meetings to dissect what took place.

(Laughter)
I don't know about you, but that might feel kind of creepy.
(Laughter)

Reflection can be done through a variety of different formats: purposeful thinking, written journal entries, audio notes, pitches, a discussion with a mentor or honest friend. The point is to find what works for you and to make a regular commitment. To examine the events and experiences of your lives — what worked, what didn't, and why — and then, to think about what and how you would like to do things differently next time. When we practice reflection as a habit, we gain even more meaningful insight, because we see patterns that reflection on stand-alone events doesn't provide. I truly think reflection can help everyone — people in every industry, at every stage in one's career, and in every point in one's life.

Let me share with you an example that I think most people can connect with. Most of us have meetings. I was due for a daily catch-up with a colleague. He had just led a client meeting for the first time. It was to give a progress update on the work stream he was responsible for in this project. He said to me that the meeting had gone terribly. He didn't get through the actions taken. He wasn't able to discuss the obstacles faced or the decisions required. He didn't get to the next steps or the responsible persons. He felt angst, uneasy, upset. He was concerned about what the client had thought of him and the meeting, but more importantly, what the client felt about the work that was going on in the work stream. It would have been so easy for him to have pushed past this, to try and suppress the emotions, but that would have missed a massive opportunity.

We took a few moments to think and objectively reflect over what took place, and then to put in place some commitments as to what and how he could do things differently next time. He decided that in [the] future, he would start each meeting with an agenda alignment, to make sure there was clarity on what needed to be achieved. And then, he'd resolve to make sure that he would take greater control over the meeting so that if topics came up beyond the scope of the agenda, that he'd note that a separate discussion should be had. Reflection helps to improve performance.

Reflection helps to make better decisions. Imagine, for a moment, you've been in your current role for five years. It's a creative role, but you don't quite feel you've got that zing, that energy for it, anymore. You've been offered another opportunity in the organization. It's actually a promotion. It's a more senior role, managerial. But you'll have responsibility for looking after 12 direct reports. A competitor has also recently reached out to you. They've offered you an opportunity for the same kind of role that you've got currently, but it pays a higher salary. There's a big difference between being a creative and being a manager. So, what is it that really makes you fulfilled?

Reflection provides a treasure trove of data to help you work through this. Have your reflections mentioned being bored with projects, or do you just want to try something new? Would you like to be a manager? Would you like to see people grow and form and develop them? Do you think you could do a better job than your own manager? Reflection provides great insight. It's easy to get lost when you've got an opportunity of a fancier job title and more money. But reflection enables you to focus on what really matters, and to make better choices.

Let me share with you a final example. Most of us have relationships in our work — bosses, customers, clients, suppliers, whomever. And I think most of us try to have good relationships with these people. If I'm honest, while I strive for this ambition, I haven't always succeeded, but reflection has helped me to build better relationships. A number of years ago, I was giving a feedback session with a colleague, and after having done so, I took a few moments to jot down some thoughts as to how it went. I realised I had been too clinical. In fact, if only you could have seen the expressions on my colleague's face.

(Laughter)

I'd raced through their various strengths and moved onto spending more time in their areas for development. If I'd really thought about this person, I would have spent far greater time actually on their strengths, actually emphasising why they were such a valuable member of our organisation, and then, creating a space where they felt psychologically safe, to be able to go on and explore these areas for development. Reflection has helped me to improve this and to build better relationships.

So this might all sound a little fine and dandy, and may be obvious or trivial, but the truth is, so many of us don't take time out for regular reflection. This practice has helped me and I am so grateful. After I left being a priest, I took some time out for reflection to think about who I was and what I wanted my life to be about. Reflection helped me to grapple with this, and it continues to help me today as I grapple with this and other topics.

So, as we end this day, or tomorrow, before you begin the next, sit down, take a breath, and reflect. And you'll see the power that this habit brings to your life.

Thank you. (Cheers and applause)

Source

Catchlove, P. (2022, September). The habit that could improve your career. TED. https://www.ted.com/talks/paul_catchlove_the_habit_that_could_improve_your_career (CC BY-NC-ND 4.0 International)

1.4 REFLECTIVE PRACTICE IN EDUCATION - NO REFLECTION VS REFLECTION TRANSCRIPT

No reflection:

The pre-service teacher doesn't spend much time reflecting on the lesson. It was obvious that the game was a mistake, and that she shouldn't try it again with the next group of students. She decides to create a slideshow teaching vocabulary and a worksheet to review it instead, which takes her another couple of hours of preparation.

When she teaches the next lesson, there is much less shouting and chaos. However, the students don't seem very engaged in the worksheet, and she overhears one saying that the lesson was boring. Her mentor suggests that in the next lesson, she could try to cut down on the amount of 'teacher talking time' and try to include more active learning activities.

Reflection:

The pre-service teacher sets aside thirty minutes to reflect on the lesson and note down her thoughts. She realises that it wasn't as bad as she'd first thought. Yes, the students were loud, but they were loud because they were shouting answers to the game – they were engaged and excited! She reminds herself that it was a game after all, so it wasn't meant to be a formal, serious activity. However, the shouting made it hard to guide the game, and meant that some of the quieter students didn't get an opportunity to answer questions.

She thinks about why this happened and wonders whether the students choosing their own groups set up a rowdy dynamic from the start. She also didn't spend much time explaining the process for answering a question before the game started.

The pre-service teacher considers what she could have done differently. She could have spent some time before the class organising groups to establish a more productive dynamic, and she should have made the instructions clearer before the game started. She takes these insights and others into her planning for the next geography cohort and gives the game another shot with some changes to the original lesson plan.

There's still a bit of shouting, but it goes much better than the first time, and all the students are engaged and laughing throughout the activity. Jana's mentor congratulates her on

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the lesson, and she hears a student saying that geography was more fun than he thought it would be.

1.4 REFLECTIVE PRACTICE IN EDUCATION - CASE STUDY: JANA'S REFLECTIVE PRACTICE SLIDESHOW TRANSCRIPT

Meet Jana

Jana is studying to become a primary school teacher. Although her image was created using AI, her experiences closely mirror those of teachers all across the country, and reflective practice is a tool she'll use throughout her entire career.

Explore how reflective practice plays a role in her professional development at each major stage of her teaching journey.

Jana's reflective practice as a pre-service teacher

The habits Jana develops now, as a pre-service teacher, will set the foundation for her future teaching practice. By the time she is responsible for her own students, Jana will be accustomed to using critical reflection to improve her students' learning experiences.

In the first year of her course, Jana learns about the importance of reflective practice and how she will be expected to demonstrate her learning throughout her teaching degree. During her studies she'll complete a wide range of reflective tasks. Some of these tasks will be formal written assessments, while others will be ungraded personal reflections or informal discussions in class or with mentors.

Here are some of the reflective tasks Jana completes during her teacher training:

Professional experience journal

As part of her pre-service placement, Jana will be required to keep a reflective journal where she'll reflect on and review experiences and insights from her time observing and teaching lessons. Jana has decided to create a blog and keep her journal online. She will need to apply theory that she's studied in her course to her practical experience and write about how her views on teaching and learning have been shaped by her placement experience.

Reflective essay

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Jana attends a workshop on inclusive education. She is then required to write an academic reflective essay on the experience, how it aligns with readings done for class, and how she will apply her learnings in the classroom.

Mentor meetings

During her professional placement, Jana has daily chats with her mentor and more structured meetings after she teaches her planned lessons. During these meetings, Jana's mentor discusses the lesson with her and encourages her to reflect on the experience. The mentor gives Jana constructive feedback, and together, they explore areas ideas for improvement in future lessons.

Group assessment self-reflection

Jana and two classmates carry out a group task in which they plan and co-teach a mock lesson for their classmates and teachers. After the mock lesson, as part of the assessment, the group members each answer a series of reflective questions on how they worked collaboratively, the planning and delivery of the lesson, and what they've learnt from the experience.

Peer feedback

Jana and her classmates have been tasked with creating a rubric for an assessment task they've designed. When they've completed the first draft, they exchange their rubric with another student on a digital platform and then provide each other with constructive feedback. Jana needs to review the clarity, relevance, and fairness of her classmate's rubric, using a positive and supportive tone.

Teaching portfolio artefacts

As her course nears completion, Jana is creating her teaching portfolio, which will serve as both her final assessment and a showcase of her teaching style and development. She reflects on what she values most as an educator to develop her teaching philosophy. Jana includes evidence of her reflective practice by selecting relevant items from her professional journal, reflective essays, and mentor notes to be artefacts in her portfolio.

Jana's reflective practice as a graduate teacher

Jana has finished her teaching qualification and she's now a graduate teacher at a primary school. Like all new teachers, Jana has a provisional teaching registration, and is working towards her full registration by collecting evidence demonstrating that she has reached the proficient teacher level.

Although the list of required evidence seems intimidating at first, Jana quickly realises that many of the tasks involve reflective practice – something she's comfortable with from her time as a student.

During this stage of her career, Jana reflects on:

- lessons she's taught activities she's tried and how well they worked
- · discussions with her mentor about how her classes are

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going

- how she has implemented teaching standards and strategies into her daily teaching practice
- interactions with students and involvement of parents
- her participation and learnings in professional development activities (follow the link to read an example)
- the lessons of experienced teachers that she has observed
- discussions about students' progress with colleagues and parents
- incidents requiring de-escalation and documentation

Jana's reflective practice as an experienced teacher

Now that Jana is a registered teacher with lots of experience, you might think that she will have learnt all there is to know — but in reality, reflective practice should never end.

Every day in the classroom is different and offers lots of experiences, challenges, and opportunities for Jana to further hone her craft as a teacher. Reflective practice has become second nature to Jana now — it's an integral part of her teaching and learning. She sets aside thirty minutes of intentional reflective practice each week, which involves reflecting on her lessons or professional development sessions that she's facilitated. She keeps notes in her professional

journal, and occasionally writes formal reflections to share with colleagues and parents.

Jana enjoys looking back on her reflective journal and teaching portfolio and reminiscing. She's mentoring her own pre-service teachers now and helping them develop their reflective skills!

Jana is also part of a Community of Practice who she chats to regularly in an informal setting, which is her favourite reflective activity. They meet for coffee and share classroom challenges, talk about their reactions and concerns, and solve issues together.

A Community of Practice (CoP) is a collective of people with a common interest in working towards the same thing, and sharing resources, ideas, challenges, and solutions.

CoPs might meet in person or communicate online from all corners of the world. In education, the focus of a CoP could be something like encouraging digital literacy in primary school or helping international students settle into an academic environment. Some CoPs are formally organised, with regular and structured meetings, while others prefer to have informal sessions with people coming together to discuss their work, reflect on problems, and seek advice. You don't have to wait until you're a qualified educator to find a community — you can join one now or even start your own.

1.4 REFLECTIVE PRACTICE IN EDUCATION PROFESSIONAL DEVELOPMENT WORKSHOP WRITING SAMPLE

Below you can read an example of a graduate teacher's written reflection after attending a professional development workshop. The graduate teacher can use this reflection as evidence of teaching proficiency when applying for full teaching registration.

Workshop reflection

My Year Six students are from different cultural and linguistic backgrounds and there are varying levels of English language proficiency in the class. I have noticed that in many cases this has caused a disconnect between some students and their classmates, and even between students and staff. My teaching inquiry focuses on how cross-cultural communication skills can be developed. I am exploring activities and discussions to promote understanding, empathy, and effective communication between students in this class.

In order to learn new strategies to implement as part of my teaching inquiry, I recently attended a workshop called Embracing Language Diversity in the Primary Classroom. In the workshop, we discussed the significance of valuing students' home languages and cultural identities, as this affects their wellbeing and learning. We learnt about linguistic scaffolding (which involves providing support to students learning English as an additional language) through visual aids, gestures, and simple language to build their confidence.

We were reminded to be mindful of the language we use as educators, avoiding jargon and ambiguous phrases that might confuse non-native English speakers. The workshop leader also discussed the drawbacks of cultural and linguistic 'cliques' forming in the classroom, which can limit opportunities for interaction and lead to division within the classroom. It can

also hold back students' language learning as they interact less with speakers of the main classroom language (English).

Having reflected on my teaching, I realise that I sometimes use language that might be challenging for some students and may have unknowingly contributed to their isolation from the activity and their peers. In the future, I will be more intentional about my language choices to ensure they are inclusive and accessible to all of the students. I have also allowed students to choose their partners in many activities, and without fail they gravitate towards speakers of their own languages and cultural backgrounds. This seems like a missed opportunity, after hearing the advice in the workshop, and I will start taking steps to ensure collaboration in my class is more diverse and inclusive.

I have formed two plans after attending and reflecting on the workshop. Firstly, I am going to try a strategy that the workshop speaker called 'language partners', which involves pairing up students from different language backgrounds to work together and help each other with language challenges. This will take a lot of pre-planning to get the right pairs or groups, but it is also an opportunity for the exchange of cultural information, and to ideally build friendships and greater respect for each other. Secondly, I will create more opportunities to celebrate and highlight the linguistic diversity in my classroom by encouraging students to share their home languages and creating opportunities for peer collaboration. I

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hope to create an environment where students feel valued and respected for their unique backgrounds.

Overall, I feel more prepared to create a nurturing and culturally sensitive classroom that celebrates diversity and promotes language inclusivity. The goal of my learning inquiry is to create a positive learning environment in which students feel comfortable talking about their home lives, their cultures, and asking language questions if they are not sure. I want my students to feel valued by their teacher and their peers.

1.4 REFLECTIVE PRACTICE IN EDUCATION REFLECTION DOCUMENTATION TOOL TRANSCRIPT

Now that you've learnt about reflective practice and explored its use in a teacher's career, why not get started with your own reflections on your own learning experiences?

The following document will take you through the reflective process with guiding questions.

To start, think of a memorable lesson you have experienced as a student. A lesson that you enjoyed and feel was a good learning experience. It could be a lesson from primary or secondary school, a class you attended outside of school, a tutoring session, or part of your tertiary education.

When you have something in mind, move on to the guided reflection.

Guided reflection one: a positive

learning experience

Pause after each question and note down or reflect on your answer before moving on to the next question.

- 1. What was the class and what was the lesson?
- 2. Where were you, how many students were there, and who was the teacher?
- 3. What in particular did you enjoy about the lesson and why? This could include information on:
 - Collaboration with other students
 - Creative activities
 - The teacher's methods
 - The tools and materials you used in the lesson
 - The location
- 4. Why do you think the lesson worked so well? What do you think the teacher had done to prepare for the lesson?
- 5. What elements of this lesson would you like to bring into your own teaching practice?
- 6. What could you do to achieve that?
 - Are there any skills or knowledge you need to acquire?

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- Did the teacher use any methods or strategies that you could emulate?
- What will you do next?

Now that you have reflected on a positive learning experience and considered how you will incorporate aspects from it into your own practice, it's time to learn from a less than ideal lesson or class.

Guided reflection two: a lesson or class you disliked

Can you think of a lesson or class that you really disliked? This section will guide you through the reflective process again and help you turn a negative experience into goals you can set and actions you can take to improve your own teaching practice.

- 1. What was the class and lesson?
- 2. Where were you and how many students were there?
- 3. Who was the teacher?
- 4. What were the specific aspects of the class that you did not like? Why did you not like them? This could include information on:
 - Dynamic with other students
 - Teacher's methods or style

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- Delivery of information
- The tools and materials used in the lesson
- The activities you did
- 5. What conditions led to the things you disliked about the lesson?
- 6. If you had been the teacher of that class, what would you have done differently, and would there have been any roadblocks?
- 7. What lesson will you take from this experience into your own teaching practice?
- 8. How will you prevent similar issues from occurring in your own class as a teacher?

1.4 REFLECTIVE PRACTICE IN HEALTH -THE BENEFITS OF REFLECTIVE PRACTICE TRANSCRIPT

Skills and knowledge

It increases professional skills development.

Students and practitioners who critically reflect on their work gain insights into their own strengths and weaknesses and can use this awareness to improve their practice. This could include developing specific technical skills related to their field, organisational and management skills, the ability to put patients at ease, and understanding of how to contribute to a professional and supportive environment.

Staff well-being

It helps practitioners build resilience and identify when they need support.

Reflective practice is important in healthcare roles not only because it helps build skills and improve interactions with patients, but also for your well-being as a practitioner. As well as being an impactful and highly rewarding career, working in the healthcare industry can be physically and emotionally challenging. Intentionally engaging in reflection and having more awareness of your own health, feelings, and behaviours can help identify signs of work-related burnout, trauma, and demotivation. This awareness contributes to building resilience and can motivate practitioners to seek support and put processes in place to address these challenges.

Patient care

It's in the best interest of the patients.

Reflective practice leads to improved patient care and outcomes. Following a difficult interaction with a patient, a practitioner who does not reflect on the conditions that led to the situation is likely to encounter similar issues in the future. However, a practitioner who considers the situation, its cause, its consequences, and the possible ways it could have been

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handled differently, will be better prepared to interact with patients going forward.

In healthcare roles, mistakes are occasionally made which can significantly impact patients' physical health and treatment. This could include things like errors administering medication, failure to accurately document patients' conditions, misdiagnosing conditions that require treatment, or a lack of understanding of the equipment required for a procedure. Reflective practice also reduces the risk of errors being repeated, as mistakes and what caused them are identified early and issues are resolved.

Reflective practice also helps practitioners see new perspectives, look beyond personal biases, and build empathy and cultural understanding. This can make patient and client experiences much more comfortable and professional.

Workplace culture

It contributes to a better workplace environment for all staff.

The culture of a workplace can be enhanced by reflective practice, which is why being able to critically reflect is considered an important employability skill in the healthcare industry. This is because it's important for healthcare professionals to take ownership of their actions and professional development to reach higher levels of

1.4 REFLECTIVE PRACTICE IN HEALTH -THE BENEFITS OF REFLECTIVE PRACTICE TRANSCRIPT | 445

competency. Employers know that if you are a health professional who can reflect and take action to develop your technical skills and monitor your well-being, you can also reflect on things like efficient work processes and communication issues between staff, ensuring best practices are upheld. This contributes to a functional, respectful, and communicative environment where staff are more likely to remain in their roles, help each other, and seek support when necessary.

1.4 REFLECTIVE PRACTICE IN HEALTH NURSING JOURNAL ENTRY TRANSCRIPT

Description

This week during my professional placement I was faced with a significant and unexpected event that made me more aware of the unique challenges and responsibilities of a remote area nurse (RAN). The event occurred during the evening when I was on-call. A local farmer had been involved in an accident and severely injured his upper arm.

The area does not have paramedic staff, and the local doctor was in another town, so my placement supervisor, an experienced RN, was called upon to retrieve the farmer from his home and provide care. We attended the patient's location and my supervisor provided emergency care on-site with me attending. We then relocated the patient to the center for further treatment. My supervisor determined that the patient needed surgical intervention and took action to arrange air transport to the nearest hospital.

We have received news that the patient's arm did not require amputation due to the initial care he received and his quick transfer to the hospital, where he was treated by a surgeon. He is expected to recover the use of his arm.

Feelings

When I heard the news of the accident and realised that my supervisor and I would be the sole healthcare professionals on the scene, I felt very overwhelmed and anxious. At first, I didn't believe that there wasn't anyone else who could go to retrieve the patient and was completely shocked that we were going. My supervisor acted quickly, but for a few seconds I was frozen and felt terrified that we could not provide this man with the care he needed without medical specialists.

When my supervisor gave me instructions, I felt adrenalin rushing through me in addition to feelings that I was completely out of my depth. My supervisor was calm and confident in response to the situation, which made me feel slightly better, but also quite inadequate because I felt so far away from matching her competency in the situation.

Afterwards, I felt proud that I had been able to help my supervisor carry out the patient's treatment, but I still felt a sense of disbelief that as a nurse, this was my responsibility and anxiety that I would be met with more unfamiliar situations.

Evaluation

This event was challenging for me and highlighted the difference between urban and remote nursing work – in remote areas, nurses are required to take on responsibilities that nurses in cities or larger towns never would. The anxiety and insecurity I felt during this event made me question whether I was cut out for a remote nursing role.

The patient was losing so much blood that without immediate care, he may have lost his arm or even died. That is a very sobering and humbling thought. Nursing here may sometimes require the ability to make autonomous life and death decisions, which isn't something I thought I would be doing. I am disappointed by the fear and hesitancy I felt when I heard of the accident, when really there was no option but to provide care.

The patient received excellent care from my supervisor, and I did my best to follow her lead despite my anxiety. She made him feel as calm and comfortable as I believe possible under the circumstances. I was in awe of her interaction with him. She spoke to him calmly and was familiar with him from her work in the community. She asked him about his children and job, and this calmed him immensely. I could tell that he trusted her and was willing to be in her care. Her decision-making in discerning that a surgeon was needed and calling for transport to the hospital also made a big impression on me. My supervisor didn't falter in such a high-stakes situation, even

though it is something a nurse would not be responsible for in an urban health setting.

I think it was important for me to have this experience because I became truly aware of the lack of specialist support in remote nursing. Feeling out of my depth was a wake-up call for me to fully understand the responsibility RANs hold and how important they are in this community.

Analysis

McCullough et al. (2022) note that remote nurses are often unprepared for the generalist scope they must take on after their specialist nursing courses. Because there is a lack of access to other health professionals, remote nurses need to deal with any potential emergency and do what is necessary. Nurses interviewed for the study described feeling 'scared', 'nervous', and 'frightened' in moments when their skills and training did not prepare them for what they were facing. They expressed concern about the scope of practice and the responsibility of being the only ones in the community with health knowledge and resources, and therefore needing to do things they had never experienced.

This is very much something I felt during and after the event this week. This was not a situation I have experienced in an urban health setting, and it is not something I have been trained for. In cities and larger towns, there's a sense of security knowing that there's specialised support and healthcare roles

are well-defined. In remote areas like this, specialist staff aren't always available. My supervisor had mentioned this type of scenario as a possibility, but I hadn't considered it likely or given it enough weight. During previous shifts, the regional doctor had either been in the clinic, or the patients we were seeing hadn't required treatment from a doctor, so I hadn't fully considered what would happen without a medical practitioner available. The experience also highlighted an element of a RAN's role that I hadn't fully appreciated before – the need for immediate action and decision-making in the absence of specialised support. While my training has prepared me to be a critical thinker, I did not and do not feel prepared to make independent decisions in emergency situations yet.

Reflecting on this event, an aspect that stands out is the trust the patient had in my supervisor despite her not being a paramedic or doctor. Aside from her obvious clinical competence in her role, I believe this is a result of her engagement with the community and his familiarity with her and her skills. It's clear that community bonds are much more important in remote areas than in urban settings. RANs like my supervisor don't just need to have clinical expertise, but also the ability to build relationships and rapport within the community.

Finally, I'm trying to remind myself that my supervisor has over ten years of experience in rural and remote communities, and that I cannot expect myself to perform at her level. Through better awareness of what the role entails, and on-the-

job experience, I believe I can improve my practice and build my confidence and connections within the community.

Conclusion

This experience has provided me with a much greater understanding of the broad demands of a nursing role in a remote community. It has forced me to reflect on my own feelings of inadequacy when I need to step outside of the well-defined role of a specialist nurse and can't rely on my urban training. If a similar emergency arises in the future, I won't feel blindsided by the situation.

I have also gained insight into the importance of making myself visible to locals and building a positive reputation in the community — this comes with the understanding that community connections play a much larger role in a remote clinic than they do in larger urban areas.

Action Plan

Moving forward, I intend to consider all the possibilities of a remote nursing role as things which are likely to happen. This will make me feel better prepared and less hesitant and insecure in similar situations. I will not underestimate the requirements of this role again.

I will continue to learn from my supervisor and ask her to

tell me about times when she has had to work outside the traditional nursing 'scope' in emergency situations, and how she handled those situations. This will help mentally and emotionally prepare me for events that my training has not and help me figure out the additional skills and knowledge I need. I can then seek further professional development in those areas.

I also plan to look for more opportunities to engage with the community. I can accompany my supervisor on local visits and health education sessions and attend community events. This will help me gain a deeper understanding of the community's values and help the locals see who I am and what I'm about.

References

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