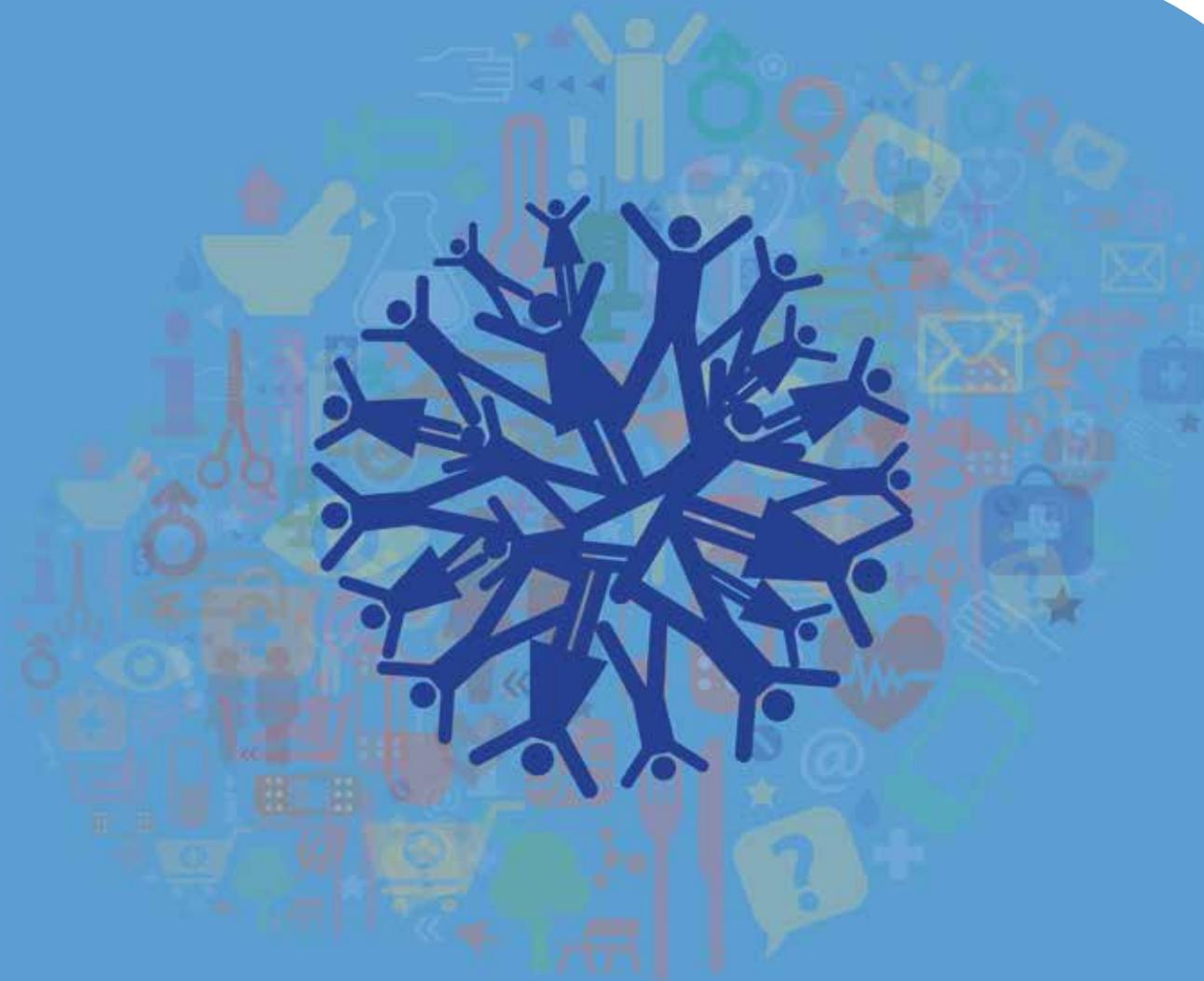


CHCPOL003

Research and apply evidence to practice

Release 2



Learner guide

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Release 2

Learner guide

Aspire Version 1.1



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CHCPOL003 Research and apply evidence to practice, Release 2

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First published April 2020

Cover design Rewind Creative

Printer Doculink Australia Pty Ltd, 1d/28 Rogers Street,
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e-ISBN 978-1-76075-612-3 (PDF version)

ISBN 978-1-76075-611-6

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Before you begin

This learner guide is based on the unit of competency *CHCPOL003 Research and apply evidence to practice*, Release 2. Your trainer or training organisation must give you information about this unit of competency as part of your training program. You can access the unit of competency and assessment requirements at: www.training.gov.au.

How to work through this learner guide

This learner guide contains a number of features that will assist you in your learning. Your trainer will advise which parts of the learner guide you need to read, and which practice tasks and learning checkpoints you need to complete. The features of this learner guide are detailed in the following table.

Icon	Feature	How you can use each feature
	Learning content	▶ Read each topic in this learner guide. If you come across content that is confusing, make a note and discuss it with your trainer. Your trainer is in the best position to offer assistance. It is very important that you take on some of the responsibility for the learning you will undertake.
	Examples	▶ These highlight key learning points and provide realistic examples of workplace situations.
	Practice tasks	▶ Practice tasks give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which practice tasks to complete.
	Summaries	▶ Key learning points are provided at the end of each topic.
	Learning checkpoints	▶ There is a learning checkpoint at the end of each topic. Your trainer will tell you which learning checkpoints to complete. These checkpoints give you an opportunity to check your progress and apply the skills and knowledge you have learnt.

Foundation skills

As you complete learning using this guide, you will be developing the foundation skills relevant for this unit. Foundation skills are the language, literacy and numeracy (LLN) skills and the employability skills required for participation in modern workplaces and contemporary life.

The following table outlines specific foundation skills noted for your learning in this learner guide.

Foundation skill area	Foundation skill description
Learning	<ul style="list-style-type: none"> ▶ Understanding your job role, organisational procedures and legal responsibilities ▶ Managing your work and seeing how well you are going ▶ Making goals for yourself at work ▶ Seeking professional development opportunities for continuous improvement
Reading	<ul style="list-style-type: none"> ▶ Understanding how documents are presented and being able to navigate through documents ▶ Understanding industry- and job-specific terminology ▶ Interpreting key information in relevant documents ▶ Understanding routine workplace checklists and documentation
Writing	<ul style="list-style-type: none"> ▶ Planning, drafting and writing reports and documents ▶ Communicating through written letters, email and online ▶ Recording progress; reporting incidents
Oral communication	<ul style="list-style-type: none"> ▶ Clarifying instructions ▶ Providing information ▶ Supporting others through encouragement, negotiation and conflict resolution ▶ Using body language to model desired behaviour and responding to others' body language
Numeracy	<ul style="list-style-type: none"> ▶ Calculating costs, weights, measurements of height and distance ▶ Interpreting measurements
Teamwork	<ul style="list-style-type: none"> ▶ Working well with other people by cooperating, collaborating, encouraging and building rapport
Planning and organising	<ul style="list-style-type: none"> ▶ Planning your workload and commitments ▶ Implementing tasks ▶ Completing work on time ▶ Knowing how to deal with hazards and risks
Making decisions	<ul style="list-style-type: none"> ▶ Understanding and applying decision-making processes ▶ Reviewing the impact of your decisions
Problem-solving	<ul style="list-style-type: none"> ▶ Identifying problems ▶ Working out how to fix a problem using problem-solving processes. Reviewing the outcome
Innovation and creation	<ul style="list-style-type: none"> ▶ Recognising opportunities to develop and apply new ideas ▶ Generating ideas by thinking of new ways to do something ▶ Making suggestions to improve work

Foundation skill area	Foundation skill description
Technology and digital literacy	<ul style="list-style-type: none"> ▶ Efficiently using digitally based technologies and systems correctly and safely ▶ Accessing, organising and presenting information ▶ Using equipment correctly and safely

What do you already know?

Use the following table to identify what you may already know. This may assist you to work out what to focus on in your learning.

Topic	Key outcomes	Rate your confidence in each section
Topic 1 Plan information gathering activities	1A Identify situations where research may be required	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	1B Evaluate current trends	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	1C Establish and define research objectives	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	1D Identify and access credible sources of information	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
Topic 2 Gather information	2A Evaluate methods for gathering information	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	2B Gather information using a systematic approach	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	2C Establish relevance of information	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	2D Organise information for analysis and future use	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident

Topic	Key outcomes	Rate your confidence in each section
Topic 3 Analyse information	3A Develop processes for analysing information	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	3B Assess information and associated risks	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	3C Make and document conclusions	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
Topic 4 Use information in practice	4A Assess how information can be applied in practice	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	4B Identify issues that require further research	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident
	4C Develop actions to address research outcomes	<input type="checkbox"/> Confident <input type="checkbox"/> Basic understanding <input type="checkbox"/> Not confident



Topic 1

In this topic, you will learn how to:

- 1A Identify situations where research may be required**

- 1B Evaluate current trends**

- 1C Establish and define research objectives**

- 1D Identify and access credible sources of information**

Plan information gathering activities

The quality of research information is directly proportional to research outcomes.

Research is critical to effective and efficient services and provides the foundation for evidence-based practice. The ability to gather and identify credible sources of information, evaluate current trends and define research objectives is key to improving work practice.

1A Identify situations where research may be required

Community services workers can use information to inform their work practices.

There are numerous situations where a community services worker may be required to seek out further information to support and improve their own work practice. Some examples are provided in the table below:

Purpose	Description
To compare approaches	<ul style="list-style-type: none"> ▶ Comparing different approaches or interventions helps determine which is most effective. ▶ For example, it may help identify which option is most appropriate in a specific setting, (e.g. rural, regional, urban).
To test a hypothesis ¹	<ul style="list-style-type: none"> ▶ A worker may have observed something in their workplace which suggests a relationship between two things. ▶ The worker may seek out further information about their hypothesis to determine whether it is correct.
To identify practice trends	<ul style="list-style-type: none"> ▶ Practice trends are innovative and emerging practices that may have the potential to improve and enhance client outcomes. ▶ A worker might want to identify practice trends to keep up to date with the latest innovations in the field or investigate a specific practice trend to understand how it may impact their own work practice.
To extend knowledge	<ul style="list-style-type: none"> ▶ A worker may need or want to extend their knowledge of an issue relating to their work practice. Perhaps they want to learn more about how to develop their understanding of working with a specific client group.

¹ A hypothesis is a statement which declares a relationship between two factors (e.g. X causes Y, X is related to Y).

It is important to note that seeking out existing information is not the only way community services workers can address issues. In some cases, undertaking additional training, or discussing issues with your supervisor or with your colleagues, will be more appropriate and efficient.

However, it may be that the questions you have cannot be sufficiently addressed via these methods. For example, you may not have access to the specific type of training you need, or your supervisor might not know the answer to your question. It would therefore be reasonable to research existing information on an issue or problem related to your work.



Example

Identify situations where workers may need to seek out more information: rehabilitation

Elena works as a rehabilitation and support worker at a residential program for adults diagnosed with both a mental illness and substance abuse disorder. Recently, the program has received an influx of clients from refugee and asylum seeker backgrounds, and Elena would like to know how to work effectively with these clients. She asks her experienced colleagues for some useful advice and guidance, but she still feels she has more to learn; so Elena decides to seek out existing information on the topic.

Identify situations where workers may need to seek out more information: peer support

David works as a peer support worker in a community-based health service. David's main role is to facilitate a group support program for adults with anxiety disorder, and he occasionally brings his therapy dog, Max, to the group. He has noticed that when Max comes to the group, some of the quieter members of the group are more willing to participate in group discussions. David tells his supervisor about this hypothesis and suggests that he would like to bring Max to every group session, because he feels that increased group participation will lead to better outcomes for his clients. David's supervisor says she isn't aware of any evidence supporting that hypothesis and asks David to examine more research to see if his hypothesis might be correct.

Key terminology

Understanding key terms provides a strong foundation for research.

To understand the purpose of this unit, it is important to first define some key terms relating to research and evidence-based practice.

Key terms	Definition
Research	The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions
Evidence-based practice	Practice that is informed and guided by current best quality evidence about what works to improve client outcomes
Evaluation	Evaluation is a subset of research – it is the process used to assess and judge the validity of materials and sources investigated in the research process
Continuous quality improvement	A quality management process that involves the continuous collection and analysis of data and practices to determine the effectiveness and efficiency of programs and services

Research and evidence-based practice

Evidence-based information can be secondary research or primary research.

The process of systematically searching for existing evidence-based information is commonly referred to as 'secondary research'. Primary research involves the collection of raw data through surveys, interviews, experiments and focus groups; whereas secondary research uses data or research that has already been collected or undertaken by someone else.

This process is summarised below:

- ▶ Identifying a problem or an issue: relating to your work or work practice
- ▶ Developing a research objective: establishing and defining the purpose of your search
- ▶ Collecting data (information): using a specific method to gather data (information)
- ▶ Organising the data: putting the data in a format that facilitates analysis
- ▶ Analysing the data: making sense of the data
- ▶ Interpreting the data: drawing conclusions, answering the research objective and, for the purposes of this unit, applying the findings to practice

Although this process is often presented in a linear way, the research process is often less straightforward in practice. For example, a researcher may start to analyse data and realise that it could be organised in a better way, causing them to revisit their initial approach.

Foundation of evidence-based practice

There are many approaches to evidence-based research, and some are better than others.

When you undertake secondary research to inform your work practice, you must look for high quality information and evidence from credible sources. Using the best quality evidence to inform your practice is the foundation of evidence-based practice.

Although the justification for evidence-based practice is rarely disputed, there are differing views among researchers and practitioners about what constitutes 'best quality evidence.' Evidence is traditionally categorised from high to low quality according to a hierarchy, with the highest quality evidence coming from randomised controlled trials (RCTs) – also referred to as the 'gold standard'.

Randomised controlled trials use a random process to allocate individuals to two or more different groups, with each group receiving a different intervention depending on whether they are the 'experimental' group or the 'control' group (the comparison).

Randomised controlled trials can be ethically problematic. Withholding an intervention from a group of people (the control group) to determine whether another group (the experimental group) benefits from the intervention is likely to be ethically problematic. This is because, if the intervention is shown to be effective, the control group have missed out on a beneficial experience. This is particularly relevant when working with vulnerable people in a community services context.

RCTs can also be expensive and time-consuming. This is why there are often limited studies that use a randomised controlled trial method in community services.

In relation to the concept of ‘best quality research’, there is also debate around the role of practitioner’s knowledge and client values in the development of evidence-based practice. Experts argue that both practitioner’s knowledge (i.e. their knowledge of practice and what works in practice) and client values and preferences (i.e. what clients want for themselves) are critical aspects of effective practice.

This has led to an alternative understanding of evidence-based practice (sometimes referred to as evidence-*informed* practice), which is the combination of the following three forms of knowledge:

- ▶ best quality evidence
- ▶ practice wisdom
- ▶ clients’ values and preferences

Cultural considerations

Research should always be considered within a cultural context.

Issues regarding the ethics of research have arisen in relation to researcher treatment of specific groups of people, including Aboriginal and Torres Strait Islander peoples.

In the past, researchers mirrored the problematic views and attitudes held in the wider community about Aboriginal and Torres Strait Islander Peoples. This led to an undermining of Aboriginal and Torres Strait Islander People’s right to self-determination and overlooked their knowledge, beliefs and values when undertaking research. The National Health and Medical Research Council notes that Aboriginal and Torres Strait Islander Peoples are one of the most researched peoples in the world, yet they have benefitted little as a result.



To ensure ethical conduct in research with Aboriginal and Torres Strait Islander Peoples, The National Health and Medical Research Council has produced a set of guidelines titled, *Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders 2018*

These guidelines state that “ethical research among Aboriginal and Torres Strait Islander Peoples and communities should:

- ▶ improve the way all researchers work with Aboriginal and Torres Strait Islander people and their communities
- ▶ develop and/or strengthen research capabilities of Aboriginal and Torres Strait Islander people and their communities
- ▶ enhance the rights of Aboriginal and Torres Strait Islander Peoples as research partners, collaborators and participants in research”.

The National Health and Medical Research Council have also developed a *National Statement on Ethical Conduct in Human Research*, which provides general guidance for researchers undertaking research with population groups in Australia.

Although these guidelines are especially relevant to primary researchers, they are important to secondary research due to the need to assess the quality of the information you identify.

Ethical practices

Ethical practice in research is one of the factors you might consider in this process.

Ethical research standards ensure that the people who participate in research are protected, respected and not harmed. The potential harms of research include:

- ▶ *physical harm*, such as injury and pain
- ▶ *psychological harm*, such as distress, guilt and anger
- ▶ *social harms*, such as damage to social networks and relationships with others.

Groups especially vulnerable to risks include:

- ▶ *children and young people* whose capacity to understand what a research project entails – such as consenting to participate in a research project – may be compromised
- ▶ *people with a cognitive impairment, intellectual disability or mental illness* whose capacity to consent to and participate in research projects may be impaired; they may also be more vulnerable to discomfort or stress
- ▶ *people in dependent and unequal relationships* with the person or institution undertaking the research, such as the patient of a health care professional who is undertaking a research project; the nature of the dependent or unequal relationship may influence a person's decision to participate in research.

It is important that these groups are not excluded from participating in research – especially when the research findings could benefit them – provided researchers undertake careful consideration of participatory risks.

For more information, see: <https://aspirelr.link/nhmrc-ethical-conduct-research>

For more information about ethical considerations for research involving children and young people, see: <https://aspirelr.link/ethical-considerations-children>



Practice task 1

Question 1

Which of the following are reasons for undertaking a project? There are **two** correct answers. Tick all that apply.

- To determine whether there is a relationship between clients' participation in a music program and decreased levels of anxiety
- To evaluate whether clients want to go on an excursion
- To examine why there has been an increase in homelessness among young people
- To investigate the impact of studying a hypothesis on older adults

Question 2

Which of the following are ways to address problems, issues or questions about your work practice? There are **two** correct answers. Tick all that apply.

- Undertake additional training.
- Discuss issues with your colleagues or a supervisor.
- Discuss issues with your family and friends.
- Consult a qualified careers counsellor.

Question 3

According to the definition of research, which of the following statements is correct? There are **three** correct answers. Tick all that apply.

- Research is a systematic investigation.
- Research involves the investigation into and study of materials and sources.
- Research is a quality management process.
- Research is undertaken in order to establish facts.
- Research is a judgmental process.

Question 4

Which of the following statements are correct? Select yes and no for each one.

- | | | |
|---|-------|------|
| a. The process of systematically searching for existing evidence-based information is referred to as 'primary research'. | * Yes | * No |
| b. Secondary research involves the collection of raw data. | * Yes | * No |
| c. Evidence-based practice involves the continuous collection of data to determine effectiveness and efficiency. | * Yes | * No |
| d. Continuous quality improvement is a management process. | * Yes | * No |
| e. According to a traditional hierarchy of evidence, the highest quality evidence comes from randomised controlled trials. | * Yes | * No |
| f. Randomised controlled trials are often viewed as unethical because if an intervention is effective, the experimental group will miss out on the benefits of that intervention. | * Yes | * No |
| g. The National Health and Medical Research Council has produced guidelines relating specifically to undertaking research among Aboriginal and Torres Strait Islander Peoples. | * Yes | * No |
| h. Analysing data and interpreting data are the same thing. | * Yes | * No |

1B Evaluate current trends

Trends are a useful catalyst for commencing an information search and appraisal.

Practice trends are innovative and emerging practices that may have the potential to improve and enhance client outcomes.

A practice trend needs to gain traction in the field to be considered a 'trend'; that is, it needs to be acknowledged, discussed, promoted or trialled by multiple workers, organisations and/or specialists. The development of a new approach alone is not a practice trend.



There are various ways that you might learn about practice trends relevant to your work practice. These include:

- ▶ professional conferences, where presenters may discuss new and innovative practices that are becoming popular in their field, sector or setting
- ▶ networking events and communities of practice, where workers might share information about new and innovative practices
- ▶ bulletins, newsletters, blogs and podcasts produced by peak bodies and experts that may include information about new and innovative practices.

Different types of trends

Understanding the different types of trends may improve your work practice.

There are several types of trends relevant to people who work in sectors such as community services:

- ▶ Service use trends relate to the number of people accessing services and the type of services they are accessing
- ▶ Prevalance trends concern the occurrence of specific problems within the population
- ▶ Practice trends, which include:
 - new approaches to addressing client needs
 - new concepts and significant shifts in thinking
 - new types of interventions.

Each of these trends may affect workers. An increase in the use of a specific type of service, for example, can lead to higher workloads. A decrease in the prevalence of a problem in the community can free up resources for another emerging problem. Practice trends can influence how workers and organizations deliver services. Seeking out information on practice trends is an important part of your role, because they may help improve and enhance work practice.

Some examples of practice trends in the Australian health and community services fields are listed below.

New approaches to address client needs

- ▶ The 'key worker model' is a method of service delivery becoming increasingly popular in Australia used by disability services when working with families of children with special needs.
- ▶ CanChild notes that, with this model, one worker (the 'key worker') is the point of contact for a family, assisting with the coordination of health care and other forms of support (education, recreation etc.)

Source: CanChild

Concepts and significant shifts in thinking

- ▶ Recovery-oriented approaches to mental health focus on hope, self-determination, self-management, empowerment and advocacy. They are an alternative to the traditional 'medical models' that once dominated mental health service provision, which focused on pathology, deficits and dependency.
- ▶ The 'recovery movement' began in the 1970s and represented a significant shift in thinking about mental illness, ultimately leading to what the Australian Health Ministers Advisory Council refers to as a: "transformative conceptual framework for practice, culture and service delivery in mental health service provision" (p. 2).

Source: Australian Health Ministers' Advisory Council

Types of interventions

- ▶ Integrated treatment of co-occurring substance use disorder and mental health disorders involves the concurrent treatment of both disorders and the use of multiple forms of treatment.
- ▶ Integrated treatment has been shown to generate better outcomes for clients when compared to the individual treatment of the disorders using separate treatment plans.
- ▶ In the mid-1990s, integrated treatment began to emerge as a potential alternative to older models of treatment.

Reasons to evaluate practice trends

Some trends are more effective than others.

Evaluation of practice trends are key to improving one's own work practices.

For example, you might want to:

- ▶ evaluate the evidence in order to support the effectiveness of an emerging practice
- ▶ evaluate the suitability of an emerging practice for a specific population (e.g. families in a rural area)
- ▶ investigate whether a new approach to working with your clients will increase client satisfaction
- ▶ compare the effectiveness of an increasingly popular intervention with an older, more established intervention.

For the purposes of this unit, evaluating trends in your area of practice involves seeking out and analysing existing information. This process is covered in Topic 2.

Example**Evaluate current trends**

Jessica works in an outreach health and wellbeing program for socially isolated older adults from culturally and linguistically diverse backgrounds. Many of Jessica's clients have identified 'increased physical activity' as one of their goals. Jessica mentions this to a colleague who tells her about some emerging practice trends relating to increasing physical activity among older adults discussed at a recent international conference. Jessica approaches her supervisor and asks for permission to spend some time evaluating some of these practice trends to determine which might be most effective.



Practice task 2

Question 1

Which of the following are reasons to evaluate a practice trend? There are **three** correct answers. Tick all that apply.

- To better understand an increase in the prevalence of a specific problem within the community
- To evaluate the evidence to support the effectiveness of an emerging practice
- To demonstrate to their colleagues that they are well-informed
- To evaluate the suitability of an emerging practice for young mothers
- To compare the effectiveness of an increasingly popular intervention with a more established intervention

Question 2

Which of the following are places where workers commonly learn about practice trends? There are **four** correct answers. Tick all that apply.

- Professional conferences
- Trade magazines
- Communities of practice
- Networking events
- Instagram
- Newsletters

Question 3

Which of the following statements about practice trends are correct? Select yes or no for each one.

- | | | |
|--|------------------------------|-----------------------------|
| a. A shift in thinking that influences how services are provided is a type of practice trend | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. A decrease in the proportion of Australian adolescents who binge drink would be considered a <i>practice</i> trend | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c. An increase in the proportion of Australian adults seeking financial support from welfare agencies would be considered a <i>service use</i> trend | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d. Recovery-oriented approaches to mental health are an example of a practice trend | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

1C Establish and define research objectives

The more defined a research objective is, the more efficient your search outcomes will be.

Establishing and defining the objective of your search at the outset is a critical part of the research process. Systematically searching for information requires a disciplined and strategic approach which begins with a clearly defined objective. The process of establishing and defining your objective ensures that your search is effective and efficient.



The process of establishing and defining an objective involves:

- ▶ narrowing the focus of the problem or issue you have identified (establishing) and
- ▶ clarifying that problem or issue (defining).

‘Unpacking’ the problem or issue

Breaking down an issue into smaller parts may help you identify all facets of a problem.

Perhaps you have observed a problem in the course of your work that you want to investigate further. Maybe you have identified a practice trend you want to evaluate to determine whether it would help you enhance your own work practice. Or perhaps you have been asked to search for information on a specific topic for the purpose of enhancing your own work practice. Unpacking the problem or issue you have observed involves asking deeper questions about it, such as:

- ▶ What are the major concepts related to this problem or issue?
- ▶ Is one thing affecting, causing or producing a change in something else? If so, why might this be the case?

The questions you use to unpack your topic will depend upon your starting point. Elena’s starting point is that she wants to learn more about an issue. David’s starting point is a hypothesis about what he suspects is happening.

The following table demonstrates how a problem or issue can be ‘unpacked’.

Scenario	Questions and answers used to ‘unpack’ the problem or issue
Elena works at a residential program for adults who have a dual diagnosis of mental illness and substance addiction. Recently, the program has had an influx of clients from refugee and asylum seeker backgrounds. Elena wants to learn more about how to work effectively with these populations.	<p>What are the major concepts related to this problem/issue?</p> <ul style="list-style-type: none"> ▶ Dual diagnosis ▶ Mental illness ▶ Substance addiction ▶ Rehabilitation ▶ Cultural backgrounds ▶ Best practice

Scenario	Questions and answers used to 'unpack' the problem or issue
<p>David has observed that some clients in a group therapy program designed to reduce symptoms of anxiety are more willing to actively participate in group discussions when a therapy dog is present. David wants to undertake research on therapy dogs and group support programs.</p>	<p>Is one thing affecting, causing or producing a change in something else?</p> <ul style="list-style-type: none"> ▶ The therapy dog seems to be affecting group members' willingness to participate in group discussions. <p>If so, why might this be the case?</p> <ul style="list-style-type: none"> ▶ The therapy dog helps clients in the group to trust each other. ▶ When clients pat the therapy dog, it helps them relax and increases their willingness to share ▶ The therapy dog distracts clients from everyday problems that inhibit their participation ▶ The therapy dog provides a common topic for opening group conversations

Example

Establish research objectives

Yasin works as an outreach worker at a service that helps homeless people access housing. Yasin works with homeless people on the street and is finding it especially difficult to engage with young homeless people, and he wants to know what he can do to remedy this.

To establish an objective for his search, Yasin lists the major concepts relating to the problem he has identified:

- ▶ Homelessness
- ▶ Housing
- ▶ Young people
- ▶ Outreach work
- ▶ Service engagement

Define the search objective

A clear search objective often achieves clear results.

Once you have unpacked your problem or issue, you can start to work on defining the objective of your search. The objective should be specific, concise and include an appropriately phrased verb that reflects the purpose of your search:

- ▶ 'To describe...'
- ▶ 'To investigate...'
- ▶ 'To examine...'
- ▶ 'To determine...'



Based on the examples provided earlier, here is an illustration of good and poor objectives. As described above, the good objectives are specific, concise and include an appropriate verb. The poor objectives are vague and use verbs ('get', 'look') that are inappropriate for the purposes of a research project.

A good objective	A poor objective
Identify current best practices in residential settings for supporting the rehabilitation of refugees and asylum seekers who have a dual diagnosis of mental illness and alcohol or drug addiction.	Find information about refugees and asylum seekers who have a dual diagnosis.
Investigate the impact of therapy dogs on the participation of adults with mild to moderate anxiety in group support programs.	Look at some research about therapy dogs.

Example

Define research objectives

Yasin develops and refines his research objective to ensure it is specific, concise and includes a verb that is relevant to a research project. His objective is now defined as:

- ▶ *To describe the factors that influence homeless young people's engagement with an outreach mental health and homelessness service in Melbourne.*

Yasin will use the findings of his research to enhance his own work practice as an outreach worker.



Practice task 3

Question 1

Why is it important to begin with establishing and defining the search objective? There are **two** correct answers. Tick all that apply.

- It makes the process more effective and efficient.
- So you can show it to your supervisor before you start searching.
- It will ensure you won't change your mind about the objective once you've started searching.
- It helps you describe your project to others.
- It ensures a disciplined and strategic approach to the search.

Question 2

Which of the following questions are helpful when 'unpacking' a topic? There are **three** correct answers. Tick all that apply.

- What the major concepts related to this problem/issue?
- Who is affected by this problem/issue?
- What might be happening here?
- Is one thing affecting, causing or producing a change in something else? If so, why might this be the case?
- What is the history of the problem/issue?

Question 3

Which of the following are important when defining the search objective? There are **three** correct answers. Tick all that apply.

- Include a verb that reflects the purpose of the search.
- Be specific.
- Explain how the issue was unpacked.
- Be concise.
- Include all the major concepts relating to the issue.

1D Identify and access credible sources of information

Understanding what constitutes credible information will ensure accuracy in your research outcomes.

Supporting and improving your work practice can help to bring about better outcomes for clients.

When you are gathering information to support and improve your work practice, you are not just looking for *any* information. The claims that are made within an information source (such as a report, journal article, book or website) needs to be supported by credible evidence: this is what makes it a ‘credible source.’



Characteristics of credible sources

Credible sources often have certain things in common.

Assessing the credibility of a source is not necessarily a straightforward exercise. For example, an otherwise credible source may not have the appearance of a standard research publication. Similarly, even if a source doesn’t include a publication date, it may still be credible. However, any source that lacks *multiple* credible characteristics should be assessed carefully and used with caution.

Characteristics of credible sources	Examples of this characteristic
Unbiased	<ul style="list-style-type: none"> ▶ The information is balanced. For example, the author acknowledges opposing ideas, arguments and explanations. ▶ The content does not indicate political or religious bias. ▶ The content has been published to provide information or report upon research – not to sell a product.
Authored by people with relevant credentials	<ul style="list-style-type: none"> ▶ The author (or authors) has qualifications and/or expertise that is relevant to the topic. ▶ The author is associated with a reputable institution or organisation.
Current	<ul style="list-style-type: none"> ▶ The evidence is current within the context of the field or topic of interest. (If the resource is too old, it may not incorporate more recent advances in the field). ▶ If it is not clear when a document was published, the evidence within the document may not be credible.

Characteristics of credible sources	Examples of this characteristic
<p>In-depth and comprehensive</p>	<ul style="list-style-type: none"> ▶ The content incorporates what is already known about a topic and this information is properly referenced (i.e. the source of the information is provided in a reference list or bibliography). If there are no references, the source is unlikely to be credible. ▶ The source takes the form of a standard research publication and includes the following sections/headings: abstract, introduction, methodology, results/findings, references.
<p>Accurate</p>	<ul style="list-style-type: none"> ▶ The research has been undertaken using a rigorous scientific method. ▶ The conclusions of the research are based upon the evidence provided.

Characteristics of non-credible sources

Non-credible sources also share some commonalities.

It is useful to also consider the characteristics of non-credible sources. Any author can claim that the information they are providing is based on evidence, but some forms of evidence are not legitimate, notably:

- ▶ personal testimonies
- ▶ anecdotes
- ▶ the claims of a celebrity.

Any source that is backed *solely* by this type of evidence is *not* credible and should not be used to support or improve your work practice.

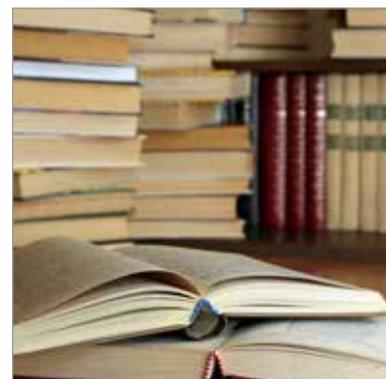
Using non-credible sources can result in inefficient and ineffective work practice which, in turn, may at best lead to no change in outcome for your clients and, at worse, cause harm to clients. Using credible sources and evidence-based practice helps to ensure services are fulfilling their ‘duty of care’ – that is, their legal and moral responsibility to keep their clients safe.

Tools for assessing credibility

Different tools assess credibility in different ways.

Numerous tools exist to assess the credibility of a source. One of these is the CRAAP test, which was designed by Sarah Blakeslee and the librarians at California State University’s Meriam Library in 2004.

This test lists the key elements of a credible source (current, relevant, authoritative, accurate and developed for the right purposes) and provides examples of questions that people can ask to assess the credibility of a source – such as an online article or research report.



The CRAAP test

This short acronym may help inform your credibility assessment.

Currency	<ul style="list-style-type: none"> ▶ When was the information published? ▶ Is there a more recent publication that supports or refutes the original?
Relevance	<ul style="list-style-type: none"> ▶ Is it pitched for a scholarly audience? ▶ Have you looked at a variety of sources before selecting this one?
Authority	<ul style="list-style-type: none"> ▶ What are the author's qualifications? ▶ Has the resource been cited in other research?
Accuracy	<ul style="list-style-type: none"> ▶ Does the research contain sufficient evidence to back it up? ▶ Has the publication been through a peer-review process? ▶ Are there grammatical or spelling errors?
Purpose	<ul style="list-style-type: none"> ▶ Why was the resource developed? Was it developed to inform and provide facts to the audience, or rather to sell something? ▶ Is there evidence of political, religious or personal bias? ▶ Is the information objective and impartial?

Example

Identify and access credible sources of evidence

Aldo is a youth worker looking for information about supporting young people's mental health through mobile phone apps. He has identified the major concepts relating to his topic and has started to look for relevant information.

Aldo finds a report published online by three academics from an overseas institution. The report describes a research project undertaken to assess the effectiveness of a specific mobile phone app. However, the authors credentials are not provided, and the report is posted on a page that is advertising the company that sells the app. The report has an unusual structure – with no abstract and a very limited reference list. Based on these factors, Aldo decides that the report is not a credible source.



Practice task 4

Question 1

Which of the following are characteristics of a credible source? There are **two** correct answers. Tick all that apply.

- The author has relevant credentials.
- The content is unbiased.
- The content is endorsed by experts.
- The content is current.

Question 2

Which of the following are examples of characteristics of an accurate source? There are **three** correct answers. Tick all that apply.

- The content incorporates what is already known about a topic.
- The author acknowledges opposing ideas, arguments and explanations.
- The research has been undertaken using a rigorous scientific method.
- The conclusions of the research are based upon the evidence provided.
- The source takes the form of a standard research publication.

Question 3

Why is the credibility of a source relevant to a worker's duty of care? Tick all that apply.

- Because using credible sources demonstrates that a worker cares about his clients.
- Because using non-credible sources to inform practice may cause harm to clients.
- Because using non-credible sources to inform practice may be a breach of a worker's contract.
- Because using non-credible sources could harm the reputation of their organisation.
- Because using credible sources fulfils a worker's duty of care to her colleagues.



Summary

- ▶ Secondary research uses data or research that has already been collected or undertaken by someone else for the purposes of analysis.
- ▶ The main reasons why community services workers undertake secondary research are to compare approaches, test a hypothesis, identify practice trends and extend their knowledge.
- ▶ Practice trends are innovative and emerging practices that have the potential to improve and enhance clients' outcomes.
- ▶ Specific guidelines in Australia have been developed to ensure Aboriginal and Torres Strait Islander peoples and communities benefit from research that involves them.
- ▶ The process of establishing and defining a research objective involves narrowing the focus of a problem or issue and then clarifying the problem or issue.
- ▶ A research objective should be specific, concise and include an appropriate research-related verb (e.g. investigate, examine, etc.).
- ▶ Credible sources are unbiased, authored by people with relevant credentials, current, in-depth, comprehensive and accurate.
- ▶ Using credible sources and evidence-based practices helps to ensure services are fulfilling their duty of care.
- ▶ Evidence-based practice is practice that is informed and guided by best quality evidence, however there are differing views about what constitutes 'best quality evidence.'
- ▶ Randomised controlled trials generate 'gold standard' evidence however they are difficult to undertake in community services settings.



Learning checkpoint 1

Plan information gathering activities

Part A

1. Which of the following are examples of a worker improving their own work practice?
There are **four** correct answers. Tick all that apply.

- Comparing two or more different approaches or interventions for working with clients
- Testing a hypothesis relating to their work practice
- Identifying practice trends
- Giving a presentation at a conference
- Demonstrating their research skills to their supervisor
- Extending their knowledge

2. According to the NHMRC, ethical research among Aboriginal and Torres Strait Islander peoples and communities should enhance their rights as *what*? There are **three** correct answers. Tick all that apply.

- Research collaborators
- Research analysts
- Participants in research
- Research partners
- Research managers

3. Describe **two** steps in the research process.

4. Draw a line and match the research on the left with the type of trend on the right.

- | | |
|---|--------------------|
| * A decrease in the proportion of adult women diagnosed with anxiety | * Prevalence trend |
| * Increased use among community health services of a new intervention for teenagers with Autism Spectrum Disorder | * Practice trend |
| * An increase in the proportion of young men taking methamphetamine | * Prevalence trend |

5. The CRAAP test is used to assess the credibility of information sources. What does the acronym stand for?

6. Match the term on the left with the definition on the right.

- | | |
|----------------------------------|--|
| * Research | * A quality management process that involves the continuous collection and analysis of data |
| * Evidence-based practice | * The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions |
| * Evaluation | * Using best quality evidence to improve client outcomes |
| * Continuous quality improvement | * The process used to assess and judge the validity of materials and sources. |

Part B

Sabeen is a support worker at a drop-in service for families with young children in a disadvantaged rural area. The service provides a place for parents and young children (aged 0–5) to play and socialise; it also provides parents with access to on-site parenting courses. Sabeen has noticed that many parents sign up for parenting courses but do not complete them and would like to know how to increase completion rates at the drop-in service.

1. Sabeen is starting by ‘unpacking’ the problem or issue she has identified. Identify at least **two** major concepts related to the problem Sabeen has identified.

2. While undertaking her search, Sabeen finds numerous publications that are backed by non-credible evidence. Identify **two** reasons why Sabeen should not use the information in these publications to inform her own work practice.

3. Sabeen finds that very few studies have used a randomised controlled trial method. What could be the reason for this? There are **three** correct answers. Tick all that apply.

- They are time-consuming.
- Very few are undertaken in English speaking countries.
- They are expensive.
- They can be ethically problematic.
- They are of sufficient quality to be included in peer-revised publications.



Topic 2

In this topic, you will learn how to:

- 2A Evaluate methods for gathering information**
- 2B Gather information using a systematic approach**
- 2C Establish relevance of information**
- 2D Organise information for analysis and future use**

Gather information

The process of gathering information can be time-consuming if you haven't prepared properly.

When undertaking secondary research, the process of systematically gathering and organising information is critical to an efficient and effective search. A good search strategy will generate useful information that can then be used to inform your work practice.

2A Evaluate methods for gathering information

Understanding the purpose of your information search will help you evaluate the methods appropriate to your objectives.

The first step in the process of gathering information is to evaluate and select methods by which the information will be gathered. A range of methods can be used, each with their own distinct advantages and disadvantages.

Methods for gathering information

There are advantages and disadvantages to each method for gathering information.

There are a range of methods that can be used to gather information. Some of these are outlined below.

Methods that involve online searches

- ▶ Search online academic databases.
- ▶ Search online grey literature databases (see table on pp. 26–27).
- ▶ Search online research organisations.
- ▶ Search online peak body websites.
- ▶ Search online conference paper databases.
- ▶ Search online relevant government websites.
- ▶ Search online generic research search engines (e.g. Google Scholar).
- ▶ Use online library catalogues to identify relevant books and book chapters, including campus library catalogues and community library catalogues.

Other methods

- ▶ Identify highly relevant journals and manually search through hard-copy volumes.
- ▶ Contact experts in the field and ask them for their advice regarding best publications on your specific topic.

The types of resources you are likely to identify through these methods include:

- ▶ peer-reviewed journal articles
- ▶ research reports
- ▶ research briefs, summaries
- ▶ books
- ▶ book chapters.

These are the types of resources commonly used to access credible evidence-based information. A detailed description of these resources is provided in the following table:

Type of resource	Description of resource	How to access resource
Peer-reviewed journal articles	<ul style="list-style-type: none"> ▶ Peer-reviewed journals contains scholarly articles that have been assessed by experts (i.e. ‘peers’) prior to publication. ▶ The experts who review articles for a peer-reviewed journal article are authorities in relevant fields of study. 	<ul style="list-style-type: none"> ▶ Online research databases (e.g. Scopus, Web of Science) – commonly accessible to tertiary students through their campus library¹ ▶ Google Scholar ▶ Websites of peer-reviewed journals
Research reports published by authoritative and reputable organizations	<ul style="list-style-type: none"> ▶ Some organizations publish research reports online. ▶ Publications which are not in peer-reviewed journals – such as these types of reports – are often referred to as ‘grey literature’. ▶ Grey literature is research that is not published in commercial or academic publications. It is often in the form of a PDF or online report. ▶ Grey literature may be just as credible as peer-reviewed journal articles, however the ability to assess their credibility may be more difficult. 	<ul style="list-style-type: none"> ▶ Government websites ▶ Research organisations’ and peak bodies’ websites ▶ Online clearinghouses and knowledge exchange sites (e.g. Analysis and Policy Observatory and CFCA) ▶ Open grey (publications from Europe only) ▶ Google Scholar
Research briefings and research summaries	<ul style="list-style-type: none"> ▶ Summaries of research findings that are designed to make research more accessible. ▶ Research briefings and summaries are usually relatively brief and are often produced by organisations involved in ‘knowledge translation’ (i.e. the ‘translation’ of complex information into accessible content). 	<ul style="list-style-type: none"> ▶ Government websites ▶ Research organizations’ and peak bodies’ websites ▶ Online clearinghouses and knowledge exchange sites (e.g. Analysis and Policy Observatory and CFCA) ▶ Open grey (publications from Europe only) ▶ Google Scholar
Books and book chapters authored by authoritative and reputable researchers	<ul style="list-style-type: none"> ▶ Some researchers publish the findings of their research in books and book chapters. 	<ul style="list-style-type: none"> ▶ University and community libraries

¹ Research databases are used to identify articles, are usually discipline/subject specific and allow you to search for information according to specific categories such as: keywords, subject headings, author and title.

Selecting and evaluating methods

Once you select a search method, you then must evaluate its effectiveness.

It is good practice to use at least two different search methods for identifying information.

Using an academic database or similar will usually reward you with quality evidence, however, using a second method, such as a grey literature database, will yield a richer 'pool' of evidence.

For example, grey literature often provides a different perspective on issues and topics compared with books and peer-reviewed journals. These sources may consider the practical implications of evidence more readily than resources designed for traditionally academic audiences.



When selecting methods for gathering information, it may be useful to consult with colleagues about the methods they recommend. For example, your colleagues may know about a peer-reviewed journal that is highly relevant to the problem or issue you are investigating, which may constitute one of the methods you use to identify information.

Your colleagues may also be able to give you information about reputable and authoritative research organisations in your field. You might then choose 2–3 of those organisations and search their websites for reports relating to your topic.

The methods you use to identify information will most likely be influenced by your ability to access certain resources. For example, accessing full text peer-reviewed journal articles through academic databases can be difficult without a university affiliation (e.g. current university student, university alumni).

When selecting a method for gathering information, it is important to consider the pros and cons of each resource.

Resource	Pros	Cons
Peer-reviewed journal articles	Easier to ensure credibility because of the peer-review process ¹	Can be difficult to access full-text journal articles and content may be overly complex
Research reports published by authoritative and reputable organisations	Often freely available through organizations, clearinghouses and knowledge exchange sites	Can be difficult to assess the credibility of the resource
Research briefings and research summaries	As above and content is typically written in a way that makes it easy to understand and digest	As above and may not accurately reflect the findings of the research
Books and book chapters published by well-known scholarly publishers	The process of publication provides reassurance of credibility	May be difficult to access, e.g. books may not be available through community libraries

¹ Some journals that claim to be 'peer-reviewed' have been found to be fraudulent. There are steps you can take to check the legitimacy of a peer-reviewed journal (see <https://federation.edu.au/library/student-resources/help-with-searching/finding-peer-reviewed-journal-articles>)

Example

Evaluate and select methods of gathering information

Gemi is a youth worker who is undertaking a search to determine which of two interventions will be most effective for the young people she is working with. Prior to selecting methods for gathering information, Gemi asks two experienced colleagues for their opinion on which methods are likely to be most useful. One of her colleagues tells her about a research organisation that regularly publishes reports on the effectiveness of different types of youth work interventions.

Gemi does not have access to academic databases. To ensure she gets a broad scope of information, she decides upon three methods:

1. Search an online grey literature database.
2. Use a scholarly search engine.
3. Search the website of the research organisation her colleague recommended.

**Practice task 5****Question 1**

Which of the following publications are used by researchers and practitioners to access relevant and credible research? There are **two** correct answers. Tick all that apply.

- Peer reviewed journals
- Generic search engines (e.g. Google)
- Trade magazines
- Research reports authored by a government department
- Online news channels

Question 2

Which of the following statements about peer-reviewed journals are correct? There are **two** correct answers. Tick all that apply.

- They contain scholarly articles that have been assessed by experts prior to publication.
- They can be accessed via online academic databases.
- Compared to other resources, it is difficult to determine the credibility of the articles contained in peer-reviewed journals.

Question 3

Why it is good practice to use at least **two** different methods to gather information? There are **two** correct answers. Tick all that apply.

- It provides a richer 'pool' of evidence.
- The practical implications of evidence may not always be addressed in more academic sources, such as peer-reviewed journals.
- It helps to ensure your findings are not biased.
- It helps to develop information-gathering skills.
- It helps to ensure that any information you identify is credible.

Question 4

What are the advantages of using research briefings and summaries for information? Tick all that apply

- Compared with other resources, their credibility is easy to determine.
- They're easier to find than other types of resources.
- They're usually written by experts in the field.
- Compared with other resources, the information is usually easier to digest and understand.
- They're usually more in-depth than other types of resources.

2B Gather information using a systematic approach

Efficiently gathering information allows you more time to analyse the information rigorously.

A systematic approach to gathering information helps ensure your searches generate the most relevant information in the most efficient way.

Systematic searches are pre-planned and structured, which helps avoid selection bias. Selection bias is a type of error that results from applying parameters (often unintentionally) to a search. If you have a non-representative sample, you may not get an accurate picture of the approach, intervention or issue you're investigating.



Developing a search strategy

A good search strategy may save you time in the long run.

The key to undertaking an effective systematic search is to develop a search strategy *before* you start searching for information. This begins with selecting the methods for gathering information (see Section 2A) and then:

- ▶ identifying synonyms and alternative words
- ▶ defining the scope of your search.

Identifying synonyms and alternative terms

Widening your search terms helps reduce the risk of missing critical research.

Identifying synonyms for the major concepts outlined in your research objective helps to ensure that your search leads you to the most relevant literature.

Researchers use different terms to refer to the same thing. For example, a major concept in your research objective might be 'alcohol and drug addiction.' A range of different terms are used to refer to this concept, including:

- ▶ substance abuse
- ▶ substance misuse
- ▶ substance use
- ▶ alcohol abuse
- ▶ drug abuse
- ▶ alcohol and drug dependency.

If the only search term you search for is 'alcohol and drug addiction', you may not identify relevant publications that use slightly different terminology to refer to the same concept. This doesn't mean you need to use every single alternative phrase or term for every single search that you undertake. You may just want to select 3-4 of the most common alternative phrases and terms to help broaden your search.

Research objective	Major concepts	Synonyms and alternative words
To describe the factors that influence homeless young people's engagement with outreach homelessness services	Young people	Youth Adolescents Teenagers Young adults
	Engagement	Participation Attendance Service use
	Homelessness	Transient Itinerant Vagrant Housing insecurity
	Mental health	Mental illness Mental wellbeing Emotional wellbeing

Some academic databases automatically use standard terms to refer to concepts. For example, you may find that a database uses 'alcohol and drug dependency' to categorise *all* resources relating to that concept. In this way, the database does some of the work for you by limiting the need to do multiple searches of similar terminology.

Define the scope of your search

The parameters of your search scope directly impacts the amount of information you will be exposed to.

When searching for information, you'll often find yourself confronted not by a lack of information but rather an abundance of information.

Finding a lot of information on the issue you have identified is of course a good thing – it means there's a lot for you to draw from. The downside, however, is that the process of searching and analysing the information will be time consuming – you may also find yourself delving through research that isn't relevant to your project.

It's therefore useful to decide upon the scope of your search as part of your strategy. This will ensure that the process of searching and analysis is achievable in relation to the time and resources available to you. The table below indicates some of the ways you can contain the scope of your search.

Ways to contain scope	Example of search scope
Limit time period	Only searching for information published in a specific timeframe (e.g. the past 10 years)
Limit sources	Only using 2–3 sources to search for information (e.g. one academic database, one grey literature database and one journal)

Ways to contain scope	Example of search scope
Limit context	Only searching for information relating to: <ul style="list-style-type: none"> ▶ developed nations ▶ the drug and alcohol sector, the aged-care sector, etc.

If, even after applying such limits, you find that you are coming up with too much information, you can repeat this process again and refine your search even further. For example, you may choose to narrow your time frame from the past ten to the past five years. Alternatively, you might narrow the context, so instead of searching for information relating to developed nations, you only search for information in English speaking developed nations.

For more information about planning a search strategy see: <https://aspirelr.link/planning-search-strategy>

Document your search strategy

Keeping track of your search strategy keeps you from losing focus.

It is good practice to document your search strategy by outlining:

- ▶ the methods you will use to undertake your search
- ▶ the synonyms and alternative words for the key concepts outlined in your objective
- ▶ the scope of your search.

A documented strategy serves as a guide to ensure you don't lose track during the process of searching.



Document your searches

Documenting your searches prevents you from repeating unnecessary actions.

As well as documenting your search strategy, it is also useful to document the progress of your searches while you are undertaking them. This will help you:

- ▶ keep track of the searches you have undertaken and
- ▶ describe the results of your searches after they have been completed.

An example of what this may look like is provided in the table below.

Name of resource searched	Be as specific as possible, for example, not just 'Medline' but 'Medline (OVID)'.
Date search was executed	Databases change over time as new information is added, so recording the date the search was undertaken will help.
Search terms	The search terms used and how they were combined (e.g. 'and', 'or'); you can copy and paste your search terms into a Word document to keep track of them, otherwise some databases allow you to save your searches.
Results	The number of resources identified using the above search terms.

Example

Commencing an information search

David is investigating the impact of therapy dogs on the participation of adults with anxiety in group support programs. He has decided upon the methods he will use and has listed synonyms and alternative terms for the key concepts. He then selects a scope for his search and documents his search strategy as follows:

- ▶ Search terms:
 - adults
 - anxiety, anxiety disorder, generalised anxiety disorder
 - therapy dog, therapy animals, animal-assisted therapy, assistance animal
 - group support program, counselling group, support program, support group
- ▶ Search methods:
 - online academic database
 - grey literature database
 - contact experts and ask for most significant publications on the topic
- ▶ Search scope:
 - time period: 2010-2019
 - context: peer-led community-based group support programs, developed countries
 - sources: 1 online academic database, 2 grey literature databases, 2-3 experts



Practice task 6

Question 1

What are the possible consequences of selection bias in a literature search? There are **two** correct answers. Tick all that apply.

- The results will reflect a biased point of view (e.g. political bias, religious bias).
- The results of the search may not provide a complete understanding of the approach, intervention or issue under investigation.
- The results won't accurately represent the body of knowledge relating to that approach, intervention or issue.
- The results will not reflect the diversity of the population.
- The results cannot be published in a peer-reviewed journal.

Question 2

Which of the following can be used to limit the scope of a search? Tick all that apply.

- Time period and context
- Author(s) qualifications
- Institutional affiliation of author(s)

Question 3

When documenting searches, what is the minimum information that should be recorded?
There are **three** correct answers. Tick all that apply.

- Name of resource
- Description of resource
- Date search was undertaken
- Search terms
- Access method

2C Establish relevance of information

Developing a hierarchy of relevant information reduces the possibility of wasting time on immaterial research.

Only some of the resources you identify in your search will be relevant to your needs – these are ones that align with your research objective and your work requirements.

As the table below outlines, you can do some of the work of establishing the relevance of information while you're undertaking your search and the rest when your searches are complete.

During the search		
Steps	Method	Description
1	Quickly review the title and/or abstract	<ul style="list-style-type: none"> ▶ As you read through the list of publications that you identify, quickly review the titles and abstracts of each. ▶ In some circumstances, it will be immediately clear that the publication is not relevant. If the article looks potentially relevant, save it and continue searching.
After the searches are completed		
2	Read the abstracts carefully	<ul style="list-style-type: none"> ▶ Once you complete your searches and have a list of potentially relevant publications, read the abstract of each publication carefully. ▶ Upon closer inspection, you may realise that the publication is not relevant. Delete irrelevant publications from your list and keep all the others.
3	Read the publications in full	<ul style="list-style-type: none"> ▶ You should now have a few less publications than what you started with (i.e. having discarded those that are definitely not relevant). It's now time to read the publications in full. ▶ During this process, you may find that some publications are not relevant. Delete these from your list and keep all the others. (Ideally, you want to end up with a maximum of about 20 relevant publications).

As outlined above, initially you establish relevance by identifying publications that are *not* relevant, such as publications that:

- ▶ are not relevant to the objective of your search
- ▶ are much older than most of the other publications you have identified (e.g. the publication is 25 years old, when most of the other publications you've identified were published in the previous 10 years)
- ▶ refer to the implementation of an intervention in a context that is very different from where you are working (e.g. an area of extreme poverty in a developing country)
- ▶ describe interventions or approaches that are unfeasible within the context of your workplace setting (e.g. extremely expensive, requires extensive specialist training).

Identify relevant publications first is more efficient than identifying irrelevant ones, because determining potential relevance is difficult at first glance compared to determining definite irrelevance. During the complex and demanding searching process, you wish to avoid accidentally discarding a relevant publication.

For the purposes of a work-based exercise conducted by somebody with limited experience of systematic searching, you should aim to end up with no more than 20 relevant publications. In general, the more publications you must analyse, the longer the analysis will take.

Prioritising information according to need

Starting with the most useful information ensures you spend more time on quality research.

During your search, you may find that you are identifying hundreds of relevant publications. If this is the case, you may need to limit the scope of your search. Alternatively, you could organise the publications into groups according to their relevance, and then use the most relevant group of publications for your analysis.

The process of grouping publications according to relevance may be challenging, because it can be difficult to determine what makes one publication more relevant than another. One way you can do this is to determine which subgroup or issue related to your objective has the greatest need: known as 'prioritising information according to need'.

For example, a worker who provides services to socially isolated elderly people undertakes a search for information relating to effective interventions for this population: she identifies 150 relevant publications. It is not possible for her to review the title and abstracts of all 150 publications.

However, the worker also knows that the most socially isolated elderly people in her community are those from non-English speaking backgrounds. She then prioritises the information and picks out those publications that relate specifically to elderly people from non-English speaking backgrounds, which means she now has 17 publications to analyse.

This approach is not standard practice for the purposes of secondary research, because the information you end up analysing does not match your original objective. However, it is one way of adapting the process of secondary research to make it more feasible for people whose primary role is not research and workers who have a range of other time constraints.

Example

Establish relevance of information according to objectives, work requirements and needs

Rohinton works as a childcare worker in an early learning centre. He undertakes a search to identify information describing the most effective ways of ensuring children transition smoothly from early childhood to school settings.

Rohinton has identified a total of 70 potentially relevant publications and reviews the titles and abstracts of each. He discards three publications that were published prior to 1990 as well as two publications that refer exclusively to developing countries. Upon reviewing the abstracts, he discards a further two that describe interventions deliverable only by specialists. This leaves him with 63 potentially relevant publications, which is an unfeasible number to review

He has noticed that the children at his centre who struggle most with transitioning to school are those from economically disadvantaged backgrounds and discovers that 12 publications relate specifically to that population. Rohinton saves those 12 publications to Endnote in order to undertake his analysis.



Practice task 7

Question 1

Which of the following options help you quickly determine whether a publication is irrelevant? There are **three** correct answers. Tick all that apply.

- The description of the context where the intervention or approach was being tested or trialled.
- The description of the necessary qualifications required to implement an intervention or approach.
- The description of the ethnic background of the participants in the study.
- The age of the publication.
- The institutional affiliation of the publication's author(s).

Question 2

Why is it more efficient to start a search by determining which publications are not relevant? There are **two** correct answers. Tick all that apply.

- You don't want to accidentally discard a relevant publication.
- It provides you with a structure for undertaking your search.
- Irrelevant publications will most likely be the first to appear on the list of results.
- It can be difficult to initially determine publications that are potentially relevant.
- Irrelevant publications are often authored by the same people and are easier to spot.

Question 3

Which of the following are ways to reduce the number of publications you have at the end of your search? There are **two** correct answers. Tick all that apply.

- Discard publications published prior to three years ago.
- Discard publications that don't relate specifically to Australia.
- Organise the publications into three groups according to their relevance.
- Prioritise the information according to need.
- Organise the publications in alphabetical order according to the first author's surname.

2D Organise information for analysis and future use

Organising information makes it easier to access in the future.

Having identified relevant publications, the next step is to organise the information. When you analyse the information you have identified, you will need to consider the findings within each individual publication and the overall findings from all the publications combined. Organising the information makes this process easier.

For the purposes of this unit, one of the best ways of organising the information is to use a basic table, spreadsheet or template to record the relevant details of each publication. An example is provided in the table below.



Information	Description
Author, year	The author and year of publication
Topic	1 sentence on the topic of the publication
Key points	4-5 (maximum) dot points on major findings and conclusions
Relevance	See section 3B Assess information and associated risks
Strengths	See section 3B Assess information and associated risks
Risks	See section 3B Assess information and associated risks
Notes	Any of your own thoughts and ideas, such as: <ul style="list-style-type: none"> ▶ the feasibility of an intervention in your work setting ▶ relevant findings to your work setting ▶ additional information within the publication to follow up on (e.g. an important research study cited within the publication).

Organising information in this way makes it easier for you – and your colleagues – to access relevant information in the future. For example, there may be a time in the future when a colleague wants to use the information you have collected to enhance an aspect of their practice. It will be easier for them to ascertain an overall understanding of the key issues if they have a summary table or spreadsheet, as opposed to only having a collection of full text publications.

You can also use reference management software, such as Endnote, to organise, curate and store the information you find. Software provides ready-made templates to record and share information about individual publications.

If you don't have reference management software, spreadsheet programs such as Microsoft Excel can be useful for organising information, as they provide a format to record and save information.

Example

Facilitate analysis by organising information in a way that supports future use

Rohinton has completed his search and identified 18 relevant publications. He uses Microsoft Excel to set up a template for recording relevant information from each publication. Each column of the spreadsheet is labelled with the information to include (e.g. Author/year, topic, key points, etc.) and there are 18 rows in total (one for each relevant publication).



Practice task 8

Question 1

Which of the following types of information should be included when organising information? There are **two** correct answers. Tick all that apply.

- Key points
- Institutional affiliation of author(s)
- Strengths
- Relevance
- Length of publication

Question 2

What information should be recorded about the relevance of a publication? There are **three** correct answers. Tick all that apply.

- Geographical context
- Author(s) qualifications
- Time period
- Population
- Author(s) conflicts of interest statement

Question 3

What are the benefits of using reference management software for organising information? There are **three** correct answers. Tick all that apply.

- Assists with the process of searching for information
- Automatically evaluates the credibility of sources
- Assists with the process of curating information
- Interprets complex information
- Used to share information with colleagues



Summary

- ▶ Credible evidence includes peer-reviewed journal articles, research reports, research briefings and summaries, books and chapters.
- ▶ Online resources are a common way to access credible evidence, however libraries are also a useful source.
- ▶ To ensure a 'rich pool' of evidence, it is good practice to use at least two different methods for identifying information.
- ▶ Grey literature often provides a more 'practice relevant' perspective on evidence compared to peer-reviewed journals.
- ▶ Systematic searches are pre-planned and structured.
- ▶ Search strategies should be developed before a search has begun.
- ▶ Defining the scope of your search helps manage the number of useful publications.
- ▶ Sometimes a quick review of the title or abstract may be all that is needed to determine the relevance of a publication; others may need to be read more dutifully.
- ▶ The best way of organising information is to use a basic table, spreadsheet or template.
- ▶ Reference management software, such as Endnote, can be useful when organising information for the purpose of analysis or future use.



Learning checkpoint 2

Gather information

Part A

1. Identify **three** online resources that could be used to search for credible information.

2. Identify **three** steps to establish the relevance of publications during a systematic search.

3. What does 'prioritising information by need' mean? Tick the correct answer.

- Selecting publications for analysis that address a worker's key area of interest
- Selecting publications for analysis that incorporate interventions matching a worker's skills and abilities
- Selecting publications for analysis that match the vision and mission of the worker's organisation
- Selecting publications for analysis that relate to a specific sub-group that has the greatest need
- Selecting publications for analysis that match the research priorities of the sector

4. Which of the following tools and resources can assist with organising information?
There are **three** correct answers. Tick all that apply.

- Spreadsheet
- Photocopier
- Template
- Filing cabinet
- Reference management software

Part B

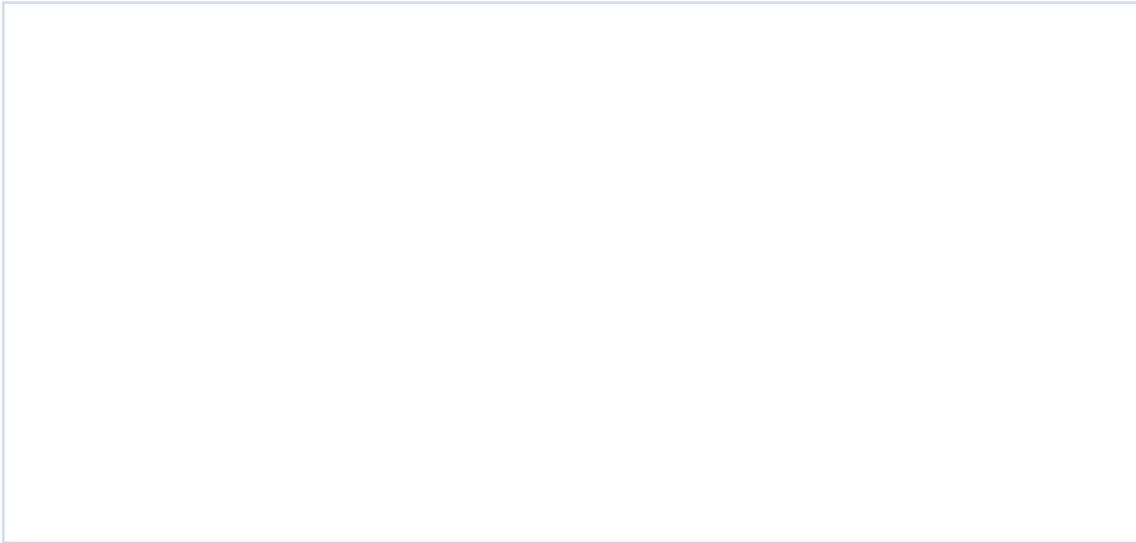
Bridget is the facilitator of a supported playgroup for young children and mothers who have experienced family violence. She wants to learn more about the impact of trauma on the relationship between mothers and young children. She decides to undertake a search for evidence on the topic and hopes to use that information to enhance her own work practice.

1. Bridget is documenting her search strategy. Identify **two** pieces of information that would be useful for her to include.

2. Bridget decides to search for peer-reviewed journal articles and research reports. Identify **three** different ways Bridget can access these types of resources.

3. Bridget undertakes a search of one database and identifies 14 potentially relevant publications. Most of the resources she has identified so far were published in the last five years.

Identify **two** ways Bridget can determine whether they are relevant?





Topic 3

In this topic, you will learn how to:

3A Develop processes for analysing information

3B Assess information and associated risks

3C Make and document conclusions

Analyse information

Once you have gathered information, you must establish the right processes to ensure you understand it correctly.

The process of analysing data is one of the most important and challenging steps in any research project. It requires you to think critically about the information you have found and reflect upon how that information relates to your work environment.

The conclusion to a research project is a summation of what has been learned. It should focus on the findings of your analysis and reflect upon your original objective.

3A Develop processes for analysing information

There are multiple ways you can analyse information and it is important to recognise the strengths and weaknesses of each.

Once you have completed your search and compiled a list of relevant publications, it's time to analyse the information as a whole.

Your main focus should centre on the findings (or results) and conclusions of each publication you have identified. This will provide you with the most useful information for informing your own work practice.

When you analyse data, you are seeking to make sense of it; this process helps you dissect a mass of information until only meaningful insights remain.

There are numerous processes that facilitate the analysis of data, including:

- ▶ comparing and contrasting
- ▶ challenging and reflecting
- ▶ drawing interdisciplinary connections.

Each of these processes are described in greater detail below.



Comparing and contrasting

Multiple sources of information on the same topic will often have multiple similarities and differences.

The process of comparing (finding the similarities) and contrasting (finding the differences) involves looking for commonalities and differences among all the publications you have identified.

Examples of common findings you could identify across multiple publications

- ▶ A specific intervention is effective/ineffective.
- ▶ A specific intervention is harmful.
- ▶ A specific approach brings about improved outcomes.
- ▶ A specific emerging approach (e.g. a practice trend) shows promise.
- ▶ A specific subgroup within the population responds positively or negatively to a specific practice.
- ▶ There is a common cause for a specific problem or issue affecting a population (e.g. increased financial stress, increased rates of homelessness, etc.).

What you are looking for is a consensus among the findings. Do most of the publications agree on the effectiveness or ineffectiveness of an intervention? Do most of them agree upon the cause of a specific problem? There is no steadfast rule about how many publications are required to indicate a consensus, however, if roughly two-thirds or more of the publications you identified agree about one of the aspects listed above, that would typically be considered a consensus.

If there is no consensus, you might be able to note patterns within the data.

For example, perhaps you identify 47 useful publications and group them according to the following patterns:

- ▶ 9 publications conclude that a specific intervention is highly effective.
- ▶ 8 publications conclude that a specific intervention is only slightly effective.
- ▶ 2 publications conclude that there is not enough evidence to indicate whether that specific intervention is effective or not.

If you compare these three groups of publications, can you identify any patterns? For example, perhaps the first group of 9 publications were undertaken with adults in a residential setting, whereas the second group of 8 were undertaken with teenagers in a community-based setting. Perhaps the final group of 2 publications was published 5 years prior to the others. This would be highly relevant to your conclusions.

It doesn't matter if there is a consensus or not: what matters is that you are able to *identify* whether any consensus exists by comparing your findings.

You may also consider the arguments and theories the authors put forward about *why* they got the results they did and their implications. These arguments and theories are usually included in the 'Discussion' and 'Conclusion' sections of a research publication.

When you compare the arguments and theories asserted, you're looking for agreements or disagreements among all the publications. Here are some of the arguments and theories the authors put to explain their findings:

Findings	Arguments and theories
<p>An intervention or approach is:</p> <ul style="list-style-type: none"> ▶ effective ▶ brings about positive outcomes or ▶ shows promise 	<p>The intervention or approach shows promise because:</p> <ul style="list-style-type: none"> ▶ it aligns with client's values ▶ it is appropriate and relevant to client's needs and circumstances ▶ it enhances a relationship of trust between worker and client.
<p>An intervention is ineffective</p>	<p>The intervention or approach is ineffective because:</p> <ul style="list-style-type: none"> ▶ it's not appropriate for a specific subgroup of the population (e.g. young children, non-English speakers, etc.) ▶ it doesn't work in specific circumstances (e.g. remote areas).
<p>An intervention is harmful</p>	<p>The intervention or approach is harmful because:</p> <ul style="list-style-type: none"> ▶ it exposes clients to risks ▶ it undermines client's physical or mental health ▶ it undermines client's cultural safety.
<p>What needs to be done to address a problem or issue</p>	<ul style="list-style-type: none"> ▶ More resources are required (e.g. funding, training, staff, etc.). ▶ A change in practice or service delivery is required. ▶ More research is required to better understand the problem/issue.

Example

Processes for analysing information

Niamh is a youth worker at a therapeutic residential care service for teenagers. To better understand how to best support her clients – most of whom have experienced significant trauma – she is searching for information about the impacts of early childhood trauma on the developing adolescent brain.

When Niamh compares her findings, she notes that most of the authors agree upon the consequences of early childhood trauma on adolescent cognitive, behavioural and socio-emotional development. However, she also notes that the authors have differing views about *how* early childhood trauma impacts upon adolescent development and *how* it can be prevented.

Challenging and reflecting

A willingness to challenge your findings objectively is the sign of a good critical thinker.

Once you have read all the relevant publications identified in your search, you then must reflect on the results, theories and arguments within those resources. For example, you may note a specific theme emerging or identify an important issue that has been ignored. This is the process of challenging and reflecting.

This challenge and reflection process requires *critical* thinking. Critical thinking does not mean *negative* thinking. Rather, Monash University defines it as “a deeper kind of thinking in which we do not take things for granted but question, analyse and evaluate what we read, hear, say or write”.



When challenging information, you are seeking to explore its validity – whether any points have been missed or whether any bias or other factors may have impacted the results. Reflecting upon information involves evaluating what you have found to assign meaning to it.

Here are some questions that may help you challenge and reflect upon the body of information identified:

- ▶ Did you find what you were looking for in your search?
 - If not, why do you think that might be the case? For example, perhaps an issue is being overlooked by researchers? Or perhaps you set out to examine an issue that has only just emerged and is yet to receive the attention it deserves?
- ▶ Do the overall findings surprise you?
 - Are you surprised that a specific intervention is not supported by evidence? Are you surprised that an important issue has been overlooked? Do the findings confirm what you already suspected?
- ▶ Is there anything missing from the body of information?
 - Perhaps a key challenge of service delivery has been overlooked. Maybe a specific client group (e.g. young people, Indigenous people, etc.) has not been considered.

Discussing the findings with your colleagues and asking these questions may help you reflect upon and challenge the information you’ve identified.

Characteristics of a critical thinker

- ▶ Open mindedness and a willingness to have their beliefs challenged
- ▶ The ability to formulate judgements with evidence and reason
- ▶ Inquisitiveness and curiosity
- ▶ Perceptiveness
- ▶ An ability to make connections between ideas

Drawing interdisciplinary connections

Research findings often have multiple applications across various disciplines.

Drawing interdisciplinary connections also supports the information analysis process. A discipline is a branch of knowledge and research which is commonly defined by one's area of study, qualifications or profession. Disciplines include:

- ▶ Health
- ▶ Education
- ▶ Psychology
- ▶ Law
- ▶ Social work
- ▶ The arts (e.g. visual arts, performing arts, etc.)
- ▶ History.

Drawing an interdisciplinary connection means drawing lessons from one discipline and applying them to another.

Your search may identify relevant publications from different disciplines. For example, if your objective related to school dropout rates among teenagers in therapeutic residential care, you may find one article about supporting the health and wellbeing of teenagers in residential care (health) and another about supporting teenagers from residential care in the school environment (education).

Drawing interdisciplinary connections involves examining the commonalities between these two publications. Are there common arguments, conclusions, theories or ideas? This type of interdisciplinary work can lead to new insights into problems and issues prevalent in different disciplines. One of the primary justifications for interdisciplinary work is that some problems are beyond the scope of a single discipline of research practice.

In some cases, the discipline a publication relates to will be unclear. A publication itself can be interdisciplinary, such as a report that examines how health providers and teachers work to support teenagers in therapeutic residential care. However, when two or more publications appear to relate primarily to one discipline, drawing interdisciplinary conclusions can be a valuable way of generating new knowledge and new practice.



Practice task 9

Question 1

When comparing research findings about an intervention, which of the following commonalities are relevant? Tick all that apply.

- The intervention effectively brings about improved outcomes for 3–5-year-old children from socioeconomically disadvantaged backgrounds.
- The intervention is effective among newly arrived Arabic-speaking migrant families living in West Auckland, New Zealand.
- The intervention has only been trialled in New Zealand and the United Kingdom.
- The intervention is less effective when it does not involve the active participation of parents and families.
- The intervention has only been delivered in early childhood education and care settings and not families' homes.

Question 2

Which of the following questions are helpful when challenging and reflecting upon a body of information? Tick all that apply

- Did you find what you were looking for?
- Is the author old enough to know about this topic?
- Do the findings surprise you?
- Are there enough pages in this research paper?
- Are the authors qualified to comment upon an issue?

Question 3

Which of the following statements are correct? There are **two** correct answers. Tick all that apply.

- When comparing research, you must analyse the information to determine if a consensus exists.
- An author's summary of their findings is found in the results section of a publication.
- A lack of consensus among the publications indicates that a search is flawed.
- The commonalities and differences among findings may implicate a worker's individual practice.

Question 4

Which of the following statements are correct? There are **two** correct answers. Tick all that apply.

- Challenging and reflecting upon research findings requires critical thinking.
- Drawing interdisciplinary connections involves examining the commonalities between multiple disciplines.
- The discipline that a worker belongs to is determined solely by their qualifications.

3B Assess information and associated risks

Like all things, there are certain elements you should be wary of when assessing information to prevent from using poor quality research.

In order to determine the quality of your information, you need to assess elements that may affect the strength of its credibility. A good rule of thumb is to determine if your research is relevant, reliable, feasible, beneficial and current. If the information violates any of these principles, then you may risk implementing research that may harm the objectives of your work practice.



The assessment process

There are five key factors to remember when determining the quality of information: relevance, reliability, feasibility, benefits and currency.

Assessing information involves an examination of the following.

Strengths	The factors that determine the quality of the information
Relevance	The relevance of the information to your own: <ul style="list-style-type: none"> - workplace setting (e.g. clinical, community-based, etc.) - location (e.g. urban, rural, etc.) - client base - organisational philosophies and goals.
Reliability	The extent to which the information can be relied upon to provide a reasonable and balanced perspective on a problem or issue
Feasibility	The viability of the strategies, interventions or recommendations outlined in the publications, such as the costs of an intervention, the level of training required to implement a strategy
Benefits	The value of the information to clients, workers and the field/sector, such as giving voice to client's experiences and highlighting new approaches to address obstacles in service provision
Currency	The extent to which the information reflects the current environment, such as the realities of service provision (e.g. funding), underlying philosophies influencing service provision, client circumstances and policy settings

When undertaking this aspect of the analysis, the focus is the body of information overall. For example, if you have identified 14 publications, you will consider the strengths of those 14 publications combined.

The table on the next page summarises the potential strengths, relevance, reliability, feasibility, benefits and currency of a body of information:

Strengths
The research has been undertaken in a range of different settings with different populations.
The research has been undertaken by highly respected researchers.
The research has been undertaken by researchers within highly respected institutions.
The authors agree upon key issues relating to the topic.
The authors provide reasonable and practical strategies for addressing the problem or issue.
Relevance
The information is relevant to your sector/field.
The information is relevant to the specific setting where you work.
The information is relevant to the specific location where you work.
The information concerns people and populations similar to your clients.
You could feasibly implement the strategies proposed by the authors.
Any additional training you need to implement the strategies proposed by the authors is feasible (e.g. your organisation can afford to cover the costs of the training)
Other costs associated with the strategies proposed by the authors (e.g. purchasing manuals) could be covered by your organisation.
The strategies proposed by the authors are feasible within the current policy context (e.g. they align with current policy frameworks)
Reliability
The body of research is methodologically sound.
A large body of high-quality research has been undertaken on the problem or issue.
The research has been published in highly respected peer-reviewed journal.
The research has been undertaken by highly respected, experienced and qualified researchers.
The authors' claims, arguments and theories are reasonable and balanced.
Feasibility
The interventions recommended by the authors are achievable within the context of your work environment.
The interventions or approaches recommended by the authors align with the financial resources available to you and your organisation.
The interventions or approaches recommended by the authors do not require extensive training to implement.

Benefits

The research findings provide a new and unique perspective on a common issue experienced by clients and workers in your field.

The research gives clients a voice and indicates their wants and needs from services.

The research findings indicate that improved outcomes are possible, despite the obstacles they face.

Potential currency

The information is relevant to the types of problems clients are currently facing (e.g. lack of affordable housing, etc.).

The information is relevant to the current service delivery environment (e.g. levels of funding, etc.).

The information aligns with dominant theories and philosophies currently influencing the field.

Example

Assess the strength, relevance, reliability, feasibility and currency of the information in the context of your own work

Elena is a rehabilitation and support worker looking for information on how to work effectively with clients from asylum seeker backgrounds diagnosed with mental illness and substance addiction. She has conducted a search and now has a body of information relevant to her original objective.

Elena notes the numerous strengths of her body of information: it has mostly been undertaken at highly respected academic institutions; the authors' arguments are reasonable and accurately reflect the research findings; the research information aligns with the current policy context.

Assessing risks associated with information

Each limitation associated with information carries a potential risk.

It is important to consider the risks of applying the findings of poor-quality information to practice. Some of the most significant risks are outlined below.

Limitations	Potential risks
The information is not relevant to your clients.	Clients don't engage with the recommended approach/ intervention because it does not align with their values, needs or circumstances.
The information lacks methodological rigour.	The strategies, approaches or interventions do not bring about the intended outcomes for clients because the information is unreliable.
The research has been undertaken by people lacking the relevant experience and/or qualifications.	
The information is not balanced and/or reasonable.	

Limitations	Potential risks
There is a lack of research on the topic or issue.	Workers and organisations don't have enough information to determine what works.
The information is not current.	Clients don't engage with the recommended approaches or interventions because they don't align with contemporary values and beliefs.

All the outcomes outlined in the right-hand column can lead to the ultimate risk: ineffective or harmful practice. For example, if clients fail to engage with an approach, it is likely ineffective. Similarly, if a recommended strategy is based on unreliable evidence, it may harm a client.

Example

Potential risks of irrelevant research

Having assessed the strengths of the body of information, Elena considers the limitations and potential risks of the research. Most of the research involved men in their mid- to late-20s from Central and South America, and a majority of the men had lived in their adopted country for at least 10 years.

However, most of the clients who come to the organization where Elena works are from refugee and asylum seeker backgrounds, typically from North-East Africa, and many are in their late teens. Approximately 25% are young women, and most have been living in Australia for a comparatively short period of time. The discrepancy between these research subjects and Elena's clients leads her to identify a potential risk of applying the research findings to her workplace: her clients will likely view the strategies as irrelevant to them and their circumstances.



Practice task 10

Question 1

Which of the following factors suggest that a body of information reflects current practice? There are **three** correct answers. Tick all that apply.

- The body of information addresses the types of problems clients are currently facing.
- The body of information aligns with dominant theories and philosophies currently influencing the field.
- The publications use technical terms and jargon common to current service settings.
- The body of information acknowledges the challenges of service delivery.
- Most of the information was published in the last 6–12 months.

Question 2

Which of the following statements are correct? There are **two** correct answers. Tick all that apply.

- The costs associated with a specific strategy need to be considered when it comes to its feasibility.
- The policy context is relevant when considering the feasibility of a specific strategy.
- A strategy is only feasible if the workers implementing the strategy have the correct training to deliver it.
- Agreement among authors about a key issue is irrelevant when considering the strengths of a body of information.

Question 3

Which of the following limitations concerning a body of information pose a risk to clients, workers and/or organisations? There are **three** correct answers. Tick all that apply.

- The information is not current.
- The information is primarily written in languages other than English.
- The information comes from research which lacks methodological rigour.
- The information is too theoretical.
- The information primarily comes from sources other than peer-reviewed journals.

Question 4

Draw a line to match the limitation on the left with the potential risk on the right.

- | | |
|--|---|
| * Inexperienced and unqualified people conducted the research. | * Clients don't engage with the recommended approach/intervention. |
| * The research recommends strategies that do not align with the current policy context | * The research findings cannot be used to support or improve practice. |
| * The research findings are irrelevant to your clients | * The strategies cannot be implemented by your organisation. |
| * The research findings are overly complex and theoretical. | * The application of the findings leads to ineffective or harmful practice. |

3C Make and document conclusions

A conclusion should directly relate to the objective of your research and the results of your analysis.

A conclusion should be based on a thorough analysis of the information gathered; it must also demonstrate that the analysis undertaken reflects upon the original objective.

Your conclusion should provide answers to the following four questions:

1	What was the objective?	Restate the objective of the search.
2	How did you search for information?	Provide a brief description of the methodology you used to find information and elaborate on the: <ul style="list-style-type: none"> ▶ resources you used to identify information ▶ strategies you used to identify information (e.g. search terms, scope, etc.) ▶ method information was organised for the purposes of analysis (e.g. table, spreadsheet, etc.).
3	What information did you find?	Provide a brief description of your search findings, such as: <ul style="list-style-type: none"> ▶ how many resources you identified ▶ the type of resources you identified (e.g. peer-reviewed journal articles, etc.) ▶ the contexts that the information relates to, such as: <ul style="list-style-type: none"> – the countries where the research was undertaken – the settings where the research was undertaken (e.g. clinical settings, community-based settings).
4	What were the findings of your analysis?	Provide a description your analysis findings, such as: <ul style="list-style-type: none"> ▶ common and opposing findings, arguments and theories among the body of information ▶ quality and risks of the information.

The bulk of your conclusion should address the final two questions. For example, if you are documenting your conclusions in a two-page report, half a page could be used to answer questions 1 and 2, with the remaining one-and-a-half pages dedicated to answering questions 3 and 4.

Tips for writing a conclusion:

- ▶ Be clear and concise.
- ▶ Avoid the use of jargon and technical language.
- ▶ Avoid repetition.
- ▶ If the results of your search are unclear, state this in your conclusion.
- ▶ If you're having difficulty writing your conclusion, use subheadings to arrange it by theme (for example, you could arrange the conclusion in four sections, addressing each of the four questions outlined above).

Example**Make and document conclusions based on findings**

Although some of the information Elena collected may not be relevant her clients, she believes some of these findings are relevant to her own work practice. For example, the evidence indicates that many asylum seekers and refugees may be afraid of unknown authority figures. This suggests it would be useful for Elena to adapt her approach when working with these clients. This might result in her clearly explaining her role, the purpose of the services she is providing in addition to adapting her body language and tone of voice.



Practice task 11

Question 1

The bulk of a conclusion should be dedicated to answering which of the following questions? Tick the correct answer.

- What was your objective?
- How did you search for information?
- What were the findings of your analysis?

Question 2

Which of the following statements are correct? There are **two** correct answers. Tick all that apply.

- A good conclusion is based on a thorough analysis of the information gathered.
- It is good practice to describe in a conclusion how you searched for information.
- There is no need to comment on the quality of the information sourced.

Question 3

When reporting upon the findings of your analysis, which of the following could be considered? There are **four** correct answers. Tick all that apply.

- Common findings among the body of information
- Common arguments and theories
- The total number of publications identified
- Opposing arguments and theories
- Risks of the information



Summary

- ▶ Analysing data means *making sense* of data.
- ▶ Data analysis involves distilling identifying insights from a mass of information.
- ▶ Three processes that can assist with data analysis with secondary research include:
 - comparing and contrasting
 - challenging and reflecting
 - drawing interdisciplinary connections.
- ▶ Comparing and contrasting involves identifying commonalities and differences among the data.
- ▶ Challenging and reflecting involves the researcher asking questions about the information collected – for example, ‘Did you find what you were looking for?’
- ▶ Drawing interdisciplinary connections involves using the lessons from one discipline and applying them to another.
- ▶ Assessing information involves an examination of the strengths, relevance, reliability, feasibility, benefits and currency of the information
- ▶ Assessing risks is important because poor-quality information may lead to ineffective or harmful practice.
- ▶ Risks that can be taken into account include: the information is not relevant to clients, the information lacks methodological rigour and the research has been undertaken by people lacking the relevant experience or qualifications.
- ▶ A research report’s conclusion should discuss the identified information identified and the findings from the analysis of that information.



Learning checkpoint 3

Analyse information

Part A

1. When comparing and contrasting findings, arguments and theories, which of the following should you look for? There are **three** correct answers. Tick all that apply

- An overall consensus
- Flaws in the author's arguments and theories
- Groups of similar findings, arguments and theories
- An overall lack of consensus
- Biased perspectives

2. What type of thinking is required in order to challenge and reflect upon data? Tick the correct answer.

- Comprehensive thinking
- Lateral thinking
- Convergent thinking
- Critical thinking
- Concrete thinking

3. Identify **two** potential risks associated with applying research findings to client interventions/ approaches.

Part B

Valerie is a community-based disability support worker. She has undertaken a search and is ready to analyse information concerning effective interventions that promote independence among adults with physical and intellectual disabilities.

1. Which of the following activities would *not* help Valerie analyse the publications/ data she has found? Tick the correct answer.

- Looking for common findings among the publications
- Looking for differences in the findings
- Investigating the ages of the publications' authors
- Discussing the findings with colleagues for the purpose of challenging and reflecting upon the data
- Employing a critical thinking mindset
- Examining the commonalities between publications from different disciplines

2. Identify **three** things Valerie can examine to assess the relevance of these resources to her own work practice.

3. Valerie needs to assess the potential feasibility and benefits of the body of information she has identified, but she is unsure of what to consider. Identify **three** things that might indicate the feasibility and/or benefit of the body of information for her own work practice.

4. Which of the following options should Valerie undertake when she is writing up her conclusion? There are **three** correct answers. Tick all that apply.

- Be clear and concise.
- Avoid the use of jargon and technical language.
- Avoid repetition.
- Acknowledge any help received when conducting research.



Topic 4

In this topic, you will learn how to:

- 4A Assess how information can be applied in practice**

- 4B Identify issues that require further research**

- 4C Develop actions to address research outcomes**

Use information in practice

Once you have assessed information, it is time to apply it.

Using the information you have gathered and analysed is the final step in the research process. Different aspects of the information can be used in different ways – from the information that relates to direct service delivery to the more obscure information, such as theories and concepts.

During this process, you will draw upon your own practice knowledge to identify potential areas for change and develop actions. Your knowledge will help to ensure any changes or actions you implement are feasible and appropriate to your workplace setting.

4A Assess how information can be applied in practice

Certain information can be applied in specific ways; an understanding of best practice will help ensure you select the correct method.

When you're applying research findings, it is important to consider the way that different aspects of the information can be used.

The publications you identify will most likely contain a range of information that may benefit different aspects of your practice. Examples are provided in the table below:

Information	Use	Example
How to implement an intervention or an approach	Direct service delivery	A worker uses a description of best practice to adapt their own approach when working with clients.
Theories and concepts	To reflect upon your practice	A worker discusses a theory with a colleague, asking them for their thoughts on the relevance of the theory to their everyday work.
How to change service systems	To advocate for systems change	A worker presents information about a new way of organising services at a conference and explains its benefits.
Descriptions of problems and challenges that impact upon clients	To reflect upon and adapt how you work with clients	A worker learns about the importance of cultural connections to a group of clients and adapts their approach to discussing values and beliefs.

Example

Assess ways in which different aspects of information can be used

Wesley is a family support worker in a welfare agency. He searches for information about working with culturally and linguistically diverse families experiencing food insecurity. He discovers that food insecurity is a source of shame for specific cultures, and he uses this information to modify how he talks about food insecurity with his clients.

Linking findings to areas for change

It is important to recognise how research can be applied to effect potential change.

The table below provides examples workers' analyses results; it also elaborates on potential areas for change in their current work practice:

Example	Potential areas for change
An intervention, approach or strategy is effective.	The worker could adopt the intervention, approach or strategy into their current work practice.

Example	Potential areas for change
One intervention, approach or strategy is more effective than another.	The worker could adopt the most effective intervention, approach or strategy into their current work practice.
The findings about the effectiveness of an intervention approach or strategy are mixed.	<p>The worker could trial the use of the intervention, approach or strategy to determine whether it is effective in their work setting.</p> <p>The worker may refrain from making changes until there is more evidence to indicate that the intervention, approach or strategy is effective.</p>
An intervention approach or strategy is ineffective.	Changes to practices are unnecessary because the intervention, approach or strategy is ineffective.
An intervention, approach or strategy is harmful.	Changes to practices are unnecessary because the intervention, approach or strategy that was investigated was found to be harmful.
Best practice involves four key aspects.	The worker could embed the four key aspects of best practice into their current work practice.
A problem or issue requires an organisation or systems change (e.g. changes to organisational policies).	The worker could advocate for changes to practice at the organisational or system level.
There is limited research on the topic to determine whether changes to existing practice are warranted.	Changes to practices are unnecessary because there is not enough research to demonstrate that changes are required.

Applying research to practice is often referred to as ‘knowledge translation’, because it involves the ‘translation’ of research evidence into practice. Common challenges faced by workers during the knowledge translation process include:

- ▶ a lack of confidence when deciding which aspects of research findings are relevant to their practice
- ▶ determining how to address a problem in their practice if researchers disagree about a problem or issue.

It is important to think critically when identifying potential areas for change (the previous table is a guide only). When deciding on potential areas for change, you can draw upon your knowledge of your clients, your organisation and the surrounding service system.

According to the definition of evidence-informed practice, this knowledge (‘practice knowledge’) is critical for determining ‘what works’.



Your focus on areas for change should concern your own work practice; after all, improving your own work practice was the ultimate goal of your search. However, you might decide that there are also broader issues to address – such as organisational practices.

It is important to remember that at this stage you are proposing *potential* areas for change. Don't stress over what might be required to implement these changes; this is covered in section 4.2.

Example

Apply the findings of research to current work practice

Yasin has undertaken a search to identify information that will help him engage with young homeless people. He finds that there are three main factors that influence young homeless people's engagement with outreach services:

- ▶ lack of trust in services
- ▶ fear of police involvement
- ▶ perception that services cannot meet their needs

Based on these findings, Yasin identifies two potential areas for change in his current work practice. This includes:

- ▶ adapting his approach when interacting with young homeless people by:
 - reassuring them of his role and emphasizing that he is not involved with law enforcement
 - explaining the specific support his organisation can provide to young people
- ▶ developing methods for building trusting relationships with young homeless people, such as establishing relationships with local organisations used and trusted by young homeless people.

Example

Apply the findings of research to current work practice

David has analysed publications that describe the impact therapy dogs have on participation in adult group therapy programs. He finds:

- ▶ some evidence to indicate that therapy dogs do increase adult participation in group therapy if a program runs for at least 8 weeks and the same therapy dog is present at every session
- ▶ some evidence indicating that therapy dogs have no impact upon the participation of adults in group support programs.

Based on these findings, David identifies two potential areas for change in his current work practice:

- ▶ Trial the use of a therapy dog, as there is some evidence to indicate that it is effective.
- ▶ Undertake an evaluation of the trial to build upon the existing contradictory body of knowledge.



Practice task 12

Question 1

Match the finding on the left with the most appropriate practice change on the right.

- | | |
|---|---|
| * The intervention is effective. | * The worker could advocate for changes to practice at the organisational or system level. |
| * The effectiveness of a strategy is mixed. | * No changes to current practice are required |
| * An intervention is harmful. | * The worker could adopt the intervention into their current work practice. |
| * A problem or issue requires an organizational or system change (e.g. changes to organisational policies). | * The worker could trial the use of the strategy to determine whether it is effective in the setting where they work. |

Question 2

Which of the following options are common reasons why translating research into work practice can be challenging? There are **two** correct answers. Tick all those that apply.

- Workers may lack confidence when determining which aspects of research findings are relevant to their practice.
- Workers may be discouraged from using research in their work practice.
- If researchers disagree about a problem or issue, it can be difficult for workers to decide how to address that problem or issue in their practice.
- The process takes too much time.
- Workers do not have the qualifications to undertake the task of knowledge translation.

Question 3

What knowledge can workers draw upon to apply research findings to their work practice? There are **four** correct answers. Tick all that apply.

- Knowledge of the clients they work with
- Knowledge of the setting where they work
- Knowledge of their colleagues' professional backgrounds
- Knowledge of the organisation where they work
- Knowledge of the surrounding service system

4B Identify issues that require further research

Sometimes your research won't answer all of your questions and you may need to investigate further.

Once you have analysed a body of information, you will likely identify issues that require further research.

Typically, you may identify that there is a lack of overall research on the topic outlined in your objective. However, there are other types of gaps you might identify.



The table below provides some prompts for identifying these:

Are there population groups that are not included or considered in the current research?

Perhaps you were unable to find information about the use of an intervention among highly vulnerable, rural or Indigenous Australian families.

Have some settings been omitted from the current research?

Perhaps you were able to find information about the use of an intervention in clinical settings but not in community-based settings.

Has the intervention been trialed in Australia?

If not, this is a gap in the research – if the intervention has not been trialed and evaluated in Australia, you can't confirm that it will work in an Australian context.

Is there a methodological gap?

Consider the types of methodologies used in the research you have identified, such as randomised controlled trials, qualitative methodologies, quantitative methodologies and case studies. Perhaps there are a lot of case studies but not a lot of RCTs? Perhaps there is an abundance of quantitative research but a lack of qualitative research? What might be some implications of this?

Do you still have unanswered questions about the topic or the issue?

Perhaps you have found enough information to address your original objective, but this has led you to other questions. There may be an additional question that you would like to explore in the future, but it might also be a question for other researchers.

Quantitative v Qualitative Data

Quantitative data is expressed numerically. For example:

- ▶ How many square metres is a house?
- ▶ How much does he earn?
- ▶ How tall is she?
- ▶ How many litres of water in a swimming pool?

Qualitative data represents 'types'. For example:

- ▶ What cities do a group of people come from?
- ▶ Do you prefer oranges or apples?
- ▶ What colour are the flowers?
- ▶ Which university did you attend?

Example**Identify issues that require further research and evaluation**

Richard is a disability support worker at a service that provides community-based accommodation in a regional area for disabled adults – he is searching for information to determine current best practice when working with clients who have a disability and major depressive disorder.

Having completed his analysis, he notes that most of the research has been undertaken in the United States and none in Australia. Furthermore, only one of the publications he identified considers issues for people living outside urban areas. These are two gaps that require further research and evaluation.

**Practice task 13****Question 1**

Which of the following are useful prompts when considering issues that require further research and evaluation? There are **three** correct answers. Tick all that apply.

- Are there population groups that are not included or considered in the current research?
- Are there relevant institutions that have not examined the issue?
- Are there settings omitted in the current research?
- Are there people within the community who should be undertaking the research?
- Do you have any unanswered questions about the topic?

Question 2

Why is a lack of research on the effectiveness of an intervention in an Australian setting significant when considering research gaps? Tick all that apply.

- It indicates the limited perspectives of the researchers.
- It undermines the quality of the research.
- Australia is a critical testing ground for interventions.
- It indicates that the authors of the research publication are biased.
- If an intervention has not been trialled in Australia, it may not be effective among Australian populations.

4C Develop actions to address research outcomes

Once you have identified research outcomes, actions may require development to implement organisational change.

The final task in this process involves deciding what to do with your findings. This requires you to develop actions based on the outcomes of your research.

Any actions you propose must be based on both your findings and the areas of change you have identified. The table below provides examples of how to navigate this:

Examples	Potential areas for change	Actions
The intervention, approach or strategy is effective.	The worker could adopt the intervention, approach or strategy into their current work practice.	<ul style="list-style-type: none"> ▶ Request a meeting with your supervisor to discuss adopting a new approach, strategy or intervention. ▶ Set up a brainstorm meeting with your supervisor to develop a plan for embedding a new approach or strategy into my practice.
One specific intervention, approach or strategy is more effective than another.	The worker could adopt the most effective intervention, approach or strategy into their current work practice.	<ul style="list-style-type: none"> ▶ Write an outline justifying the adoption of a new approach, strategy or intervention, and present it to your supervisor.
The effectiveness of an intervention approach or strategy are mixed.	<p>The worker could trial the use of the intervention, approach or strategy to determine whether it is effective in their workplace setting.</p> <p>The worker could avoid making changes until there is more evidence to indicate whether the intervention, approach or strategy is effective</p>	<ul style="list-style-type: none"> ▶ Contact 2–3 evaluation experts and ask for their assistance to develop a plan for trialing a new intervention, approach or strategy ▶ Enrol in a short course to learn more about evaluation and how to undertake a small practice-based trial. ▶ Undertake a search of two academic databases every 6 months to identify new evidence. ▶ Sign up to two academic databases to receive automatic updates on new relevant research publications.
An intervention approach or strategy is ineffective.	No changes to current practice are required because the intervention, approach or strategy is ineffective.	<ul style="list-style-type: none"> ▶ Present the findings at a staff meeting or sector networking activity. ▶ Write up the research findings for a blog or newsletter that targets workers in the field.
The intervention, approach or strategy is harmful.	No changes to current practice are required because the intervention, approach or strategy that was investigated is harmful.	

Examples	Potential areas for change	Actions
<p>Best practice involves four key aspects</p>	<p>The worker could embed the four key aspects of best practice into their current work practice.</p>	<ul style="list-style-type: none"> ▶ Set up a meeting with your supervisor to discuss how to embed the four key aspects of best practice into daily work. ▶ Develop a plan for embedding the four key aspects into practice and present this to your supervisor. ▶ Amend performance development plan to incorporate the new key aspects of best practice and seek approval from your supervisor.
<p>A problem or issue requires organisational or systems change.</p>	<p>The worker could advocate for changes to practice at the organisational or system level.</p>	<ul style="list-style-type: none"> ▶ Present the findings of research search at the all-staff meeting, which incorporates slides that outline why there is a case for organisational change. ▶ Set up a meeting with 4–5 colleagues to discuss the formation of a working party which aims to draw attention to the need for organisational or systems change. ▶ Send an email to people in your professional network to outline the findings of research and ask for ideas on how to address the issue at the systems level.
<p>There is limited research on the topic.</p>	<p>Changes to current practice are unnecessary because there is not enough research to justify changes.</p>	<ul style="list-style-type: none"> ▶ Undertake a search of two academic databases every six months to identify new evidence. ▶ Sign up to two academic databases to receive automatic updates on new relevant research publications. ▶ Set up a meeting with 4-5 colleagues and other workers in your network to discuss a plan to advocate for more research in the area.

Even if you identify that no changes are required to your work practice, there may be actions you can take to share your findings. For example, if you find that an intervention is ineffective, it may be worthwhile sharing that information within your organisation. Similarly, if you find that not enough research has been undertaken on a specific topic, it is worthwhile to share this information with others. It may encourage others to undertake research to fill that gap.

Furthermore, actions require you to draw upon your practice knowledge and your understanding of how your organisation and your sector operate. Issues you may need to consider when developing actions include:

- ▶ The level of autonomy and authority you have in your role: How are changes to practice authorised within your organisation? Do you need to discuss potential practice changes with your supervisor?
- ▶ The culture of your organisation: How does change happen in your organisation? What forums are available for workers to share their ideas about their practice?
- ▶ The time you have available to pursue actions: What actions are feasible given your job role and responsibilities? Will this action mean you are overstressing yourself?
- ▶ Your skills and interests: Would you prefer to write for a blog or present at a staff meeting? Which type of task will allow you to have the most impact?
- ▶ The resources you have available to you: Does your organisation have a budget for education and training? Do you have a wide professional network you can draw upon to ask for help or assistance?

One tool that may help you when developing actions is the SMART acronym. This tool is commonly used by evaluators and within project management to develop goals and objectives:

- ▶ **S**pecific: Make sure your actions provide an indication of a specific step you are going to take (e.g. set up, write, contact, present).
- ▶ **M**easurable: Provide an indication of how many or how much of something there is. How many people do you plan on contacting? How many people will you invite to your brainstorming session? How many academic databases will you subscribe to?
- ▶ **A**chievable: You need to develop actions that you can achieve given the time and resources available to you.
- ▶ **R**ealistic: Your actions must be realistically achievable. How much authority do you have in your role? Which changes is your organisation likely to consider? How many actions can you realistically achieve?
- ▶ **T**ime-related: Assign each action a deadline to encourage successful implementation.

Example

Adapting a research approach

Yasin finds evidence to indicate that the main factors that influence homeless people's engagement with outreach services are lack of trust in services, fear of police involvement and a belief that services cannot provide the assistance needed.

Based on these findings, Yasin concludes that:

- ▶ he will set up a meeting in the next fortnight with his supervisor to discuss adapting his approach when interacting with young homeless people by:
 - reassuring them of his role (i.e. he is not involved with law enforcement)
 - explaining the specific support his organisation can provide
- ▶ he will set up a meeting with one of a local drop-in organisation that is popular with young homeless people in the next month to discuss how they build trusting relationships with members of that population.



Practice task 14

1. Which of the following issues does a worker need to consider when developing actions in response to their research? There are **three** correct answers. Tick all that apply.

- The culture of their organisation
- Their level of autonomy and authority
- Their supervisor's personality
- Their skills and interests
- Their rate of pay

2. Which of the following statements are correct? There are **two** correct answers. Tick all that apply.

- Actions are only required when an intervention has been shown to be effective.
- Resources need to be considered when a worker is developing actions.
- In the acronym SMART, 'M' stands for malleability.
- When developing actions, it is good practice to give each action a deadline.

3. An action to address the outcomes of research needs to be which of the following? There are **three** correct answers. Tick all that apply.

- Specific
- Relatable
- Time-related
- Achievable
- Relevant



Summary

- ▶ Information contained in a body of information can be used in different ways.
- ▶ Potential areas for change and actions must be based on the findings of the analysis.
- ▶ When deciding upon potential areas for change and actions, it is important for a worker to draw upon their own practice knowledge to ensure decisions are feasible and appropriate within their current work environment.
- ▶ Actions must be concrete. They should focus on what the worker will do.
- ▶ It is useful for actions to have a deadline; this encourages the completion of tasks.
- ▶ Most researchers find that further research or evaluation is often beneficial.
- ▶ Even if no changes to practice are required, there may be actions to undertake, such as presenting the findings of the research to colleagues.
- ▶ The SMART acronym is a useful tool when developing actions based upon the outcomes of research.



Learning checkpoint 4

Use information in practice

Part A

1. Identify **two** research findings that might lead a worker to conclude that no changes are required to their own work practice.

2. Identify **two** things to consider when developing actions to address the outcomes of research.

Part B

Ursula is a community liaison officer at an organisation that aims to empower young women from disadvantaged backgrounds through visual and performing arts, and she is searching for information that aligns with her organisation's objective. She is now ready to apply the findings to her work practice.

1. Which of the following characteristics represent gaps that may require Ursula to undertake further research and evaluation? There are **three** correct answers. Tick all that apply.

- Most of the research has been undertaken by men.
- None of the research has been undertaken in Australia.
- Most of the research is qualitative.
- Many of the research publications are available on Google Scholar.
- All the research has been undertaken with people living in urban settings.

2. Some information notes that young LGBTQI women experience higher rates of mental health difficulties and lower levels of self-esteem. How could Ursula use that information in her own work practice? Tick the correct answer.

- To source additional funding
- To reflect upon how she works with LGBTQI clients
- To advocate for changes to organisational policy
- To advocate for changes to the service system
- To write up a research publication

3. Using the SMART process, describe an action Ursula could develop in response to her findings.