

Research Skills for Postgraduate Study

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A LIBRARY PRIMER

CATHERINE DOUGHTY; MARCUS HARVEY; PETER QUIN; AND PHILIP WORTHINGTON

Te Herenga Waka—Victoria University of Wellington
Wellington, New Zealand



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Cover Pattern and Image

The cover uses the kowhaiwhai (enlightenment) pattern down the left-hand side. This was extracted from Te Tumu, designed by Tane Morris for Te Herenga Waka—Victoria University of Wellington.

The kete or basket of knowledge image was generated using an LLM.

Dedication

This book is dedicated to Tony Quinn (1962-2018). Consummate academic reference librarian at Victoria University of Wellington until his life was cut short.



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Foreword

This book is designed to prepare postgraduate students for advanced research at New Zealand universities, with specific content for Te Herenga Waka—Victoria University of Wellington students. It advises and guides students on the research skills needed to carry out independent academic research projects for the first time. Students will be guided through key stages of research: formulating a research question, scoping search, comprehensive searching of the literature, evaluating information sources, and reference management. Later editions will cover Mātauranga Māori and Māori data. Practical and informative in style, the book does not cover writing and research methods.

This book started with a discussion at an OER Working Group meeting at Te Herenga Waka—Victoria University of Wellington, which I lead. It was 2023. We are a member of the [Open Educational Resources Collective](#), a shared open textbook publishing platform for participating [Council of Australasian University Librarians \(CAUL\)](#) Member institutions in Australia and New Zealand, with the aim of facilitating independent publishing by authors at participating institutions, as well as collaborative, cross-institutional publishing. This meant we could publish three open textbooks annually. We had room for another textbook at that time as no academic authors were ready to start a book. How about we write a book, we said! There was enough support and interest among the group for us to commit to it. We tossed around ideas for a book project that we had enough knowledge and ability to write and eventually settled on this.

This book focuses only on the skills a University Library teaches and supports, as topics such as research methods and writing literature reviews are well covered in other places, which are easy to access. There is no need to duplicate this. We know research support information for postgraduate students is widely dispersed among multiple owners and not easy to access at Te Herenga Waka—Victoria University of Wellington, so we have included it here. This book brings together the necessary information and support services that the library provides in a unified and easy-to-navigate source for our postgraduate students. While written for Te Herenga Waka—Victoria University of Wellington students, using our examples, links and references, the core text is generic to allow other New Zealand Universities to adapt the book for their situations and cohorts. Te Herenga Waka-specific content is kept in separate textboxes. We have aimed for a concise and straightforward style, ensuring it is accessible and easily understood by ESOL students. Links to further information, support services, and units at the University are included.

Always be aware that your Library will support you with advice and one-to-one help with search skills. My mother did an MA thesis in Geography at Massey in the 1970s and remembers being all alone in the library with no one to help. She had to work it out herself and felt proud to be able to do research. She could have got 1st class honours if she had put maps in her thesis! She was good at drawing maps, but no one told her!! If she were starting her research today and asked for support in the library, her thesis would have been better. I have heard of another student who was taking a 1st year economics course; he didn't know what **epsilon** meant. Rather than ask or look it up, he dropped the course! This was in the early 1980s. Don't be that student!

The pace of change with the emergence of Generative AI has meant a rethink regarding how we support postgraduate researchers at Te Herenga Waka—Victoria University of Wellington. As the AI space for academic research is evolving so rapidly, we decided to separate AI content into separate sidebars. When considering the impact of AI on writing this book, we decided that the advent of these new tools does not change the

information literacy principles and frameworks that guide us. Neither does it change the fundamental values and principles of the library profession. In fact, they become more important and relevant as we navigate the choppy seas of AI and guide and support you, the postgraduate researcher.

Best wishes

Philip Worthington, Editor.



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- Most content can be navigated using a keyboard
- Information is not conveyed by colour alone
- Links, headings, and tables are formatted to work with screen readers
- Images and figures have alternative text provided in one of three ways:
 - in the Alternative Text field of the image or figure, for short descriptions
 - linked at the end of the chapter, for longer descriptions
 - linked in an accessible pdf, for very long descriptions
 - if there are any without alternative text, [please let me know](#)

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Headings	Skipped heading levels	Dec 2025	

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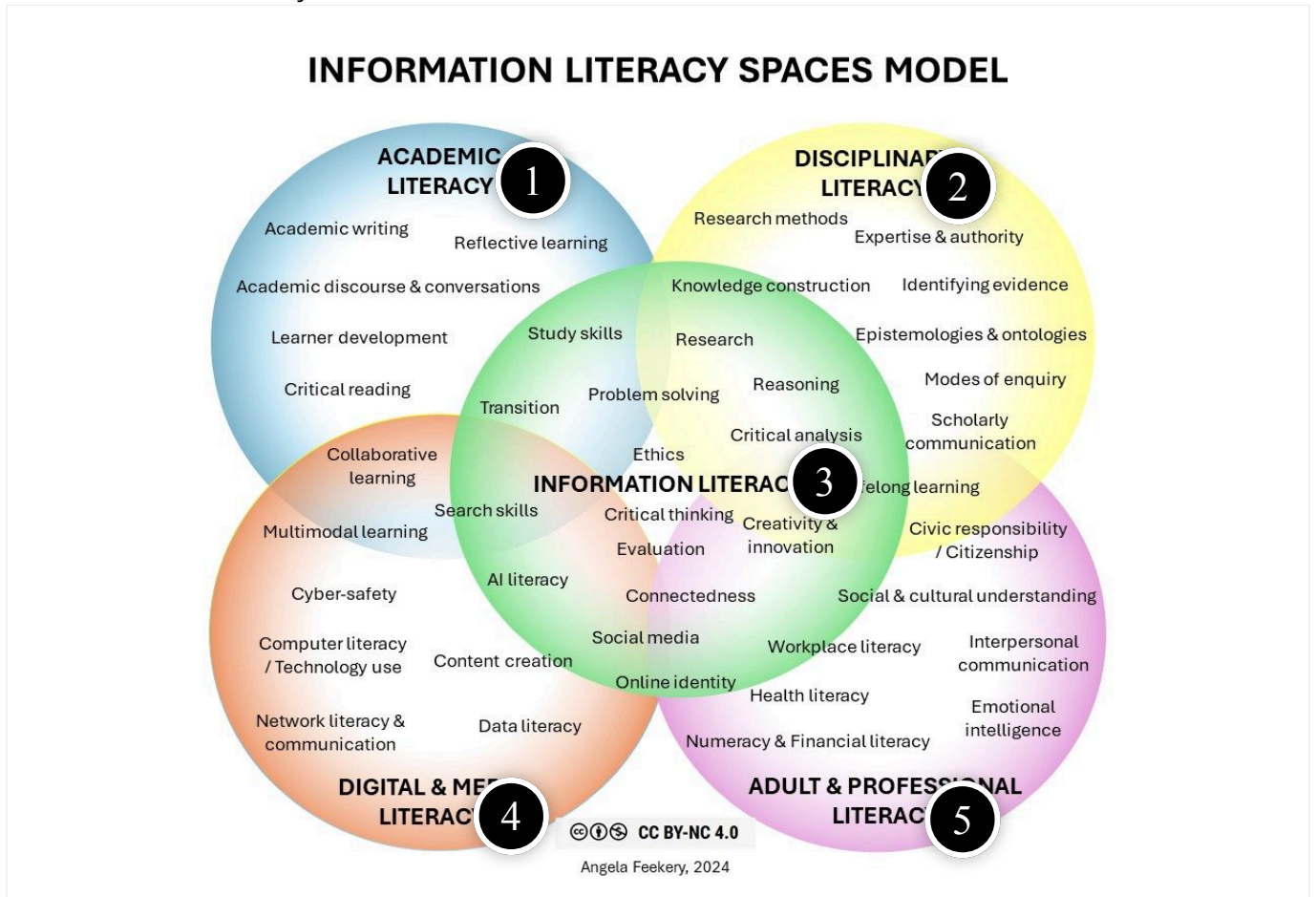
We gratefully acknowledge:

- [Dr Angela Feekery](#) of Massey University for peer-reviewing an early draft of this book and providing extremely useful feedback
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- Digl Dixon for his contribution to the Examples of AI Tools section in the Comprehensive Searching chapter



Introduction

The **Information Literacy Spaces Model** will be the overarching model for this book. It places Information Literacy at the centre of your postgraduate academic learning and literacy spaces. The model will help you understand what information literacy means and how it is central to postgraduate academic study and research; it contextualises the skills you need and shows how they overlap and interrelate. It was updated in 2024 to include AI literacy.



1 Academic literacy: Foundations for Academic Success

Academic Literacy includes the foundational literacies and general competencies essential for successful participation in secondary and tertiary education. It is not limited to reading and writing, and includes:

- Academic writing skills such as structuring arguments, expressing ideas clearly, and referencing appropriately
- Critical reading to analyse and evaluate texts, identify key ideas, question assumptions, and synthesise information
- Collaborative learning through peer discussion and idea refinement
- Transitional learner development including time management, self-regulated and self-directed learning, and metacognitive awareness
- Reflective learning, encouraging learners to critically consider their own learning processes
- Academic discourse and conversations, focusing on mastery of academic language, referencing, writing genres, and communication styles used in educational and research settings

Together, these competencies empower learners to engage confidently and critically with academic discourse and build capacity for postgraduate study and lifelong learning.

Feekery, A. (n.d.). *Information Literacy Spaces Model*. <https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>

2 Disciplinary literacy: Thinking and Communicating Like a Scholar

Disciplinary Literacy supports learners to think and communicate like members of their academic disciplines. It focuses on:

- Specialised ways of knowing, valuing, and communicating knowledge within specific fields
- Understanding disciplinary epistemologies and ontologies
- Recognising authority and expertise, and understanding how trust in information is established
- Applying research methods, identifying evidence, and engaging with modes of enquiry
- Transferring general academic skills into discipline-specific contexts to contribute to knowledge production

This domain enables learners to engage effectively within their chosen fields and build confidence in navigating disciplinary knowledge systems.

Feekery, A. (n.d.). *Information Literacy Spaces Model*. <https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>

3 Information literacy: The Integrative Core

Information Literacy (IL) sits at the heart of the framework, reinforcing its role as a central literacy that supports learners in navigating complex and evolving information landscapes. IL encompasses:

- Ethical engagement with information, including authorship, credibility, and responsible use
- Problem solving and critical thinking, encouraging meaningful questioning and informed decision-making
- Proficient search strategies and critical evaluation of information quality, relevance, and perspective or bias.
- Interrogation of origins, credibility, and context in an over-abundant and misinformation-rich landscape
- Recognition of relationships between ideas and sources, enabling synthesis across contexts
- Research practices that support the generation of new insights and confident engagement in lifelong learning

IL fosters connectedness and equips learners to contribute meaningfully to disciplinary conversations and knowledge production.

Feekery, A. (n.d.). *Information Literacy Spaces Model*. <https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>

4 Digital & media literacy: Navigating Networked Environments

Digital and Media Literacy includes the essential competencies required to navigate, create, and communicate information in digital and networked environments. It involves:

- Multimodal learning using text, image, audio, video, and interactivity
- Technology use and computer literacy for accessing tools and managing systems
- Networked communication across platforms such as learning management systems, social media, and collaborative workspaces
- Cyber safety and digital well-being, including privacy protection and ethical online engagement
- Online identity management across academic, professional, and social contexts
- Critical interpretation of media messages, identifying bias and misinformation
- AI literacy, including understanding algorithmic processes, critically assessing AI-generated content, and engaging ethically with AI tools
- Data literacy, focusing on interpreting, evaluating, and ethically using quantitative and qualitative data
- Content creation, highlighting multimodal communication, audience awareness, and ethical responsibilities in digital environments

These competencies are vital for academic success and meaningful participation in civic and professional life.

Feekery, A. (n.d.). *Information Literacy Spaces Model*. <https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>
<https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>

5 Adult & professional literacy: Lifelong Learning Beyond the Classroom

Adult and Professional Literacy extends beyond tertiary education to include the literacies needed in adult and professional life. It encompasses:

- Financial literacy, including managing finances, interpreting economic information, and making informed financial decisions
- Numeracy, supporting critical engagement with numerical information in financial contexts
- Health literacy, enabling sound personal and community health choices
- Workplace communication, adapting styles to suit diverse professional contexts
- Interpersonal communication, fostering effective dialogue and collaboration
- Emotional intelligence, emphasising self-awareness, empathy, and emotional regulation
- Cross-cultural understanding for respectful and effective engagement in diverse teams and globalised environments
- Civic engagement and citizenship, supporting ethical participation in democratic societies and online communities
- Lifelong learning, encouraging ongoing acquisition of knowledge and skills in response to changing technologies and societal needs

This domain recognises that literacy development continues throughout life, enabling individuals to remain adaptable, informed, and engaged.

Feekery, A. (n.d.). *Information Literacy Spaces Model*. <https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>
<https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>



The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=4#h5p-18>

Feekery, A. (n.d.). *Information Literacy Spaces Model*. <https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>
<https://sites.google.com/view/angela-feekery/information-literacy-spaces-model>

[Long Description Information Literacy Spaces Model](#)

The model is complementary and mutually inclusive to many other models, such as the Te Whatu Aho Rau information evaluation framework, which is presented in [Chapter 4, Evaluating your information sources](#). It is at the current edge of the Information Literacy research literature.

Working effectively with information is key to successful postgraduate research. The effective and ethical use of information, especially scholarly information, will form the basis for writing essays, assignments, reports and examinations and constructing visual and oral presentations. Learning how to find information that matters and understand why it matters is important. Information and information literacy will provide links between your life experiences as a research student, the wider academic world of scholarship, and the post-academic, real-world, and professional applications of learning.

As an information-literate person, you will be able to:

- Understand your information needs (*When do I need information? What type(s) of information do I need?*)
- Determine where information is stored (*Where is the best place to find this? Where should I search for the information?*)
- Develop the skills to find and access the information (*What tools are available to help me find the information? How do I use these tools?*)
- Evaluate information to identify the “right” kind of information and discard the irrelevant information (*Why is this information relevant and useful? Why do I trust this source of information?*)
- Use and communicate effectively the information as in the form your lecturer requires (written, oral, visual) (*How will I use the information?*)
- Record and manage information effectively (*How will I keep track of my information sources?*)

Your university may describe the attributes students should have when they graduate.

Graduate profile

Victoria University of Wellington scholars

Victoria University of Wellington prepares its graduates to be scholars who:

- have a specialised understanding of their chosen field(s) of study
- exhibit well-developed skills in critical and creative thinking
- communicate complex ideas effectively and accurately in a range of contexts
- demonstrate intellectual autonomy through independence of thought, openness to ideas and information and a capacity to manage their own learning
- demonstrate intellectual integrity and understand the ethics of scholarship.

These attributes will be reflected in the formal curriculum and tested through academic assessment.

[Ngā kura huna/Graduate profile](#)

The figure below outlines the importance of information and information skills for study and for life:

Finding and Using Information: Skills for study and life

WHEN

do you need to use information?

Would facts, data, scholarly research or examples support your learning and writing?

WHAT

type or types of information do you need?

Does the format (text, data, visual, audio-visual); purpose (research, advertising, general information); and timeliness, or currency matter?

WHERE

(and how) do you find and retrieve information?

Can you find scholarly sources (library searches; databases; Google Scholar); facts and figures; news sources; expert opinions and guides (trade publications; handbooks; 'expert' social media)? Are your search skills sufficient to find the 'best information' for your needs?

WHY

do you call some information trustworthy?

Can you tell if information is credible, reliable, timely and authoritative? Does the information support your learning and writing? Can you recognise 'fake news'?

HOW

do you demonstrate care, honesty and respect when using information?

Can you manage information sources carefully? How do you acknowledge the real experts, and stay within legal guidelines? Can you judge the right amount of information to reflect your understanding?

Finding and Using Information. Figure designed by Tahnya Bella.. Source: McGregor, R., Tweedale, R., Gunton, L., Peters, E., Rose, Y., Schultz, S., & Sachdeva, K. S. (2021). Working with Information. <https://usq.pressbooks.pub/academicsuccess/chapter/working-with-information/>. [Long description]

Information literacy is the cornerstone of academic success, and for postgraduate students it is a transformative tool that empowers self-directed learning. The principle *You are your own best teacher* is particularly relevant as you navigate complex research environments and synthesise advanced knowledge. Postgraduate study often demands the ability to independently identify gaps in knowledge, critically evaluate sources, and integrate findings into new contexts. Research suggests that when learners actively engage with their educational journey, with reflective and independent practices, they enhance their competence and confidence in problem-solving. Claire Nader's work reinforces this by emphasising responsibility in personal learning as a means of empowerment. For postgraduate students, this means mastering academic content and cultivating adaptability, intellectual curiosity, and critical inquiry (Nader, 2022). As you pursue your studies, embrace the mindset of an independent learner—view challenges as opportunities to grow and build resilience. Ultimately, the best learning comes from the questions you ask and the persistence you bring to uncovering answers. Be your own best teacher and bring your critical thinking skills to bear on your research, and you will do well. As you read this book, I hope you will benefit from each of the chapters and their authors' input into each aspect of your postgraduate independent research journey with support from your Library.

Philip Worthington, Editor.

ARTIFICIAL INTELLIGENCE

Advice and guidance on the use of Artificial Intelligence (AI) tools for research is in the relevant chapters of the book. Bear these overall thoughts on AI in mind as you use this book:

Rather than reaching definitive conclusions about how AI will transform work, I find myself collecting observations about a moving target. What seems consistent is that, for now, the greatest value comes not from surrendering control entirely to AI or clinging to entirely human workflows, but from finding the right points of collaboration for each specific task—a skill we're all still learning.

Mollick, E. (2025, January 26). Speaking things into existence. <https://www.oneusefulthing.org/p/speaking-things-into-existence>

Why Large Language Models Hallucinate

While **large language models** (LLMs) like ChatGPT can generate authoritative-sounding prose on many topics and domains, they are also prone to just “make stuff up”. Literally plausible sounding nonsense! In this video, Martin Keen of IBM explains the different types of “LLMs hallucinations”, why they happen, and ends with recommending steps that you, as a LLM user, can take to minimize their occurrence.



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

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=4#oembed-1>

AI Literacy for Students

The Digital Education Council (Australia) has created an AI framework for students and suggests aiming for the mastery levels below.

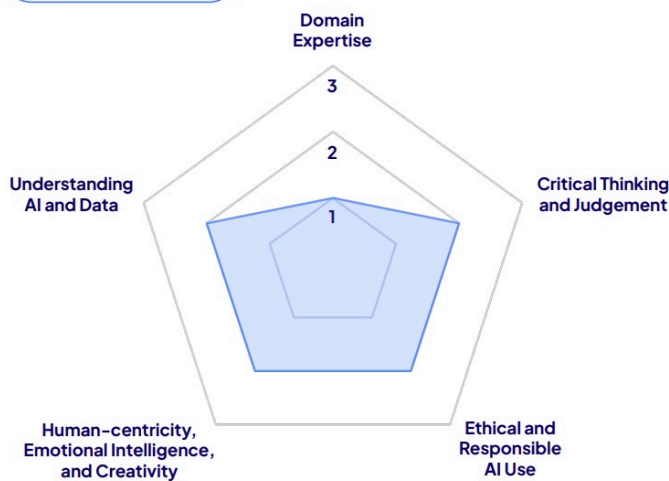
[DEC AI Literacy Framework](#)

AI Literacy Framework for Students



		Competency Level		
		Level 1 Baseline	Level 2 Expected	Level 3 Forward-looking
Literacy Dimensions	Dimension 1 Understanding AI and Data	Recognise AI's role in daily life, my studies, and society. Understand basic AI concepts and how AI systems use data.	Use AI tools for learning, research, and productivity. Understand AI limitations and biases.	Engage with AI implementation, optimisation, or customisation in my work. Strong technical understanding of AI models.
	Dimension 2 Critical Thinking and Judgement	Understand the importance of verifying AI-driven insights. Recognise when AI-generated content may oversimplify or misrepresent concepts.	Understand and apply evaluation criteria for AI-generated content, such as accuracy, explainability, bias, and source reliability.	Critically analyse the strengths and weaknesses of different AI models and their output in various contexts.
	Dimension 3 Ethical and Responsible Use	Understand academic integrity in the age of AI. Recognise ethical risks such as bias, misinformation, and plagiarism.	Apply ethical AI principles in coursework and research. Use AI tools responsibly while maintaining academic integrity.	Contribute to AI ethics discussions, policies, or student-led governance initiatives.
	Dimension 4 Human-Centricity, Emotional Intelligence, and Creativity	Recognise how AI affects communication, creativity, and human skills, and understand when human oversight is needed when using AI.	Use AI as a collaborative tool to enhance creativity and problem-solving. Develop adaptability in AI-driven environments.	Support peers to focus on human-centred skills when using AI, ensuring that AI is used as a complementary tool.
	Dimension 5 Domain Expertise	Identify AI trends and their impact on your future career. Understand how AI is changing the industry and what is expected by young professionals.	Use AI tools for field-specific tasks (e.g. AI for data analysis in business, AI-assisted research in sciences, AI for content creation).	Develop AI augmentation strategies for enhancing work and decision-making in professional settings.

Ideal Framework Mastery for Students



Student Framework Mastery

Students should aim for the following mastery levels of the DEC AI Literacy Framework:

- Understanding AI and Data**
 0 1 2 3

 Students should be able to use AI tools for learning, research, and productivity, and understand AI limitations and biases.
- Critical Thinking and Judgement**
 0 1 2 3

 Students should be able to understand and apply evaluation criteria for AI-generated content, such as reliability and accuracy of source content.
- Ethical and Responsible AI Use**
 0 1 2 3

 Students should apply ethical AI principles in coursework and research, and use AI tools responsibly while maintaining academic integrity.
- Human-centricity, Emotional Intelligence, and Creativity**
 0 1 2 3

 Students should use AI as a collaborative tool to enhance creativity and problem-solving, and be adaptable in AI-driven environments.
- Domain Expertise: AI for Career Readiness**
 0 1 2 3

 Students should be able to identify AI trends and their impact on future careers, and understand how AI is changing the industry and expectations.

Source: Digital Education Council, [DEC AI Literacy Framework](#), 2025.

LONG DESCRIPTION #1 – INFORMATION LITERACY SPACES MODEL

The Information Literacy Spaces Model presents four overlapping domains that represent the diverse literacies postgraduate researchers need to navigate academic and professional environments.

Academic Literacy focuses on foundational scholarly skills. These include academic writing, reflective learning, engaging in academic discourse and conversations, learner development, and critical reading.

Disciplinary Literacy emphasises domain-specific expertise. It includes research methods, understanding expertise and authority, constructing knowledge, identifying evidence, exploring epistemologies and ontologies, modes of enquiry, and scholarly communication.

Digital & Media Literacy encompasses competencies in multimodal learning, cyber-safety, technology use, networked communication, search strategies, AI literacy, content creation, and data literacy.

Adult & Professional Literacy covers broader life and career skills. These include lifelong learning, civic responsibility and citizenship, social and cultural understanding, interpersonal communication, emotional intelligence, numeracy, financial literacy, health literacy, and workplace literacy.

At the intersection of these four domains lies **Information Literacy**. This central space integrates and connects the skills from each area. It includes critical thinking, evaluation, creativity, innovation, connectedness, social media use, online identity management, ethics, problem solving, transition skills, study strategies, research reasoning, critical analysis, and knowledge construction.

The overlapping structure of the model highlights how these literacies are not isolated but interdependent. For example, effective academic writing may require understanding disciplinary conventions, using digital tools, and communicating professionally. Information Literacy serves as the integrative core, enabling researchers to apply these skills fluidly across contexts.

[\[Back to text\]](#)

LONG DESCRIPTION #2 – FINDING AND USING INFORMATION: SKILLS FOR STUDY AND LIFE

WHEN do you need to use information?

Would facts, data, scholarly research or examples support your learning and writing?

WHAT type or types of information do you need?

Does the format (text, data, visual, audio-visual); purpose (research, advertising, general information); and timeliness, or currency matter?

WHERE (and how) do you find and retrieve information?

Can you find scholarly sources (library searches; databases; Google Scholar); facts and figures; news sources; expert opinions and guides (trade publications; handbooks; 'expert' social media)? Are your search skills sufficient to find the 'best information' for your needs?

WHY do you call some information trustworthy?

Can you tell if information is credible, reliable, timely and authoritative? Does the information support your learning and writing? Can you recognise 'fake news'?

HOW do you demonstrate care, honesty and respect when using information?

Can you manage information sources carefully? How do you acknowledge the real experts, and stay within legal guidelines? Can you judge the right amount of information to reflect your understanding?

[\[Back to text\]](#)



CHAPTER 1

The research question

MARCUS HARVEY AND PETER QUIN

Understanding the Research Problem and the Role of the Research Question

This section will help you understand the importance of the research problem and the role of the research question. Good research begins with a problem—something that requires explanation, investigation, or resolution. This research problem often emerges from personal interest, professional practice, policy gaps, or gaps in the literature. It sets the broad context and frames the rationale for your study.

From the research problem, a research question emerges. The research question translates the broader issue into a specific, answerable inquiry. If you cannot clearly articulate your research question, it is difficult to ensure you are answering it effectively. One way to establish a strong basis for your argument or research intentions is to have a good research question. Good research has a strong argument. Depending on the type of research undertaken, a position or premise could be proposed, or a hypothesis stated with a possible explanation for something that can then be tested. The argument may develop as you conduct your research, or while you analyse and write up the results.

For example, a research problem might be: “Despite investment in digital health systems in Aotearoa/New Zealand, timely access to reliable patient information remains inconsistent across regions.” A corresponding research question could be: “What factors contribute to inconsistent access to digital patient information across health regions in Aotearoa/New Zealand?”

Purpose of the Research Question

The research question outlines the specific focus and scope of the research. The purpose of the research question includes:

- **Guidance for research design:** The research question informs the choice of research design and methodology.
- **Relevance and significance:** A well-formulated question establishes the relevance and significance of the research.
- **Clarity and precision:** A precise research question aids in feasibility assessment and organisation of the research process.
- **Feasibility:** The question helps assess whether the study is realistic and achievable.
- **Organisation of the study:** The research question guides the overall structure of the study.
- **Hypothesis testing (if applicable):** In some methodologies, the question provides the basis for formulating hypotheses.

- **Communication of intent:** The question communicates the researcher's purpose.
- **Evaluation criterion:** It serves as a benchmark for assessing whether the research was successful.
- **Sustained focus:** The question remains a constant reference point throughout the research process.
- **Foundation for the literature review:** It guides the review by helping identify relevant literature and knowledge gaps.

Importantly, research questions are not fixed. They often evolve during the research process as you review the literature, integrate relevant theories, and reflect on your methodological approach. Refinement is natural and necessary.

Types of Research Questions

Research questions differ by methodological approach:

- **Quantitative research** tends to use closed-ended questions that measure variables or test hypotheses (e.g., "What is the relationship between student internet access and academic achievement?").
- **Qualitative research** uses open-ended questions to explore experiences or meanings (e.g., "How do first-year university students experience academic support services?").
- **Mixed methods research** blends both, or asks questions that can be explored from multiple perspectives.

Frameworks such as **PICOT** (Population, Intervention, Comparison, Outcome, Time) and **FINER** (Feasible, Interesting, Novel, Ethical, Relevant) can help construct and evaluate research questions—particularly in health and social sciences.

(See: Onwuegbuzie & Leech, 2006; Ritchie et al., 2014)

Common Pitfalls in Research Question Design

Avoid the following:

- **Being too broad:** e.g., "How does education affect society?"
- **Lack of specificity:** e.g., "What are the impacts of technology?"
- **Yes/no questions:** e.g., "Does policy X work?"
- **Ambiguous wording:** Avoid vague concepts or technical jargon not shared across disciplines: "Is life getting better?"

Good research questions are focused, precise, and rooted in real-world problems or knowledge gaps.

From Research Question to Key Concepts

Once you have a clear question, the next step is to break it into its key concepts. These are the core ideas your research will explore. In this chapter, we use the term **key concepts** rather than "theoretical concepts," "conceptual constructs," or "conceptual frameworks" to avoid confusion.

For example, take the question: "How have recent housing policies in Tāmaki Makaurau affected new immigrants' access to affordable housing and their integration into local communities?"

Key concepts include:

- Housing policies
- New immigrants
- Affordable housing
- Community integration
- Tāmaki Makaurau / Auckland

Identifying synonyms and related terms will help you search for literature more effectively:

- **Housing:** public housing, state housing, urban development, housing access
- **New immigrants:** migrants, refugees, settlement, immigrant communities
- **Integration:** social cohesion, belonging, neighbourhood inclusion
- **Location:** Auckland, urban Aotearoa, New Zealand cities

Use Boolean operators in databases to build effective search queries. For example:

- “housing policy” AND immigrants AND Auckland
- immigrants AND “social integration” OR “community cohesion”

Theoretical Concepts and Frameworks

In some disciplines, researchers use the term **theoretical concepts** to describe the fundamental ideas, models, or constructs that underpin a research question. These theoretical concepts can provide a lens through which data is interpreted and help position your study within a broader academic conversation.

A theoretical concept is more than just a keyword—it reflects a discipline-specific idea or framework that gives depth to your question. For instance, a study exploring community integration might draw on concepts from social capital theory, acculturation, or intersectionality.

Key points about theoretical concepts:

- They should be **recognisable** within academic literature and discourse.
- They are **linked to your methodology**—e.g., using a constructivist lens in qualitative research.
- They **support analysis and interpretation** of your findings.

A theoretical framework may emerge as you refine your question and begin reviewing the literature. In some projects, this becomes a formal part of your research design.

By identifying your key theoretical concept(s) early, you improve the clarity and focus of your research, and make it easier to evaluate and interpret your results.

Evaluating Key Concepts

Your key concepts should be:

- **Recognisable:** They appear in existing academic literature, or are aligned to real world phenomena, organisations or locations, such as the Auckland housing example above
- **Technically aligned:** Consistent with disciplinary terminology

- **Specific:** Narrow enough to focus your research

For instance, instead of “health information systems,” you might focus on “decentralised health information systems in general practice.”

Thinking About Data

A strong research question does not lock you into one method. Consider multiple data collection approaches:

- Interviews
- Surveys
- Meta-analysis
- Regional case studies
- Experiments

Your discipline might influence methodological choices, but staying open to different data types supports robust research design.

Significance and Contribution

A strong question adds value. It should:

- Identify what intrigues you about the topic
- Suggest a contribution to existing knowledge
- Reflect your specialist knowledge or practice context

For example, a study of health information systems might aim to suggest ways to make information more timely and reliable in the Aotearoa/New Zealand context.

Originality and Surprise

Avoid predictable questions that confirm the status quo. Instead, aim for:

- Unexplored or emerging issues
- Unexpected relationships
- Nuanced, surprising insights

Compare:

- **Unsurprising:** “How do health information systems fail to provide reliable information?”
- **Surprising:** “What effect did the COVID-19 pandemic have on the sharing of clinical patient data across health information systems in New Zealand?”

Robustness

Robust questions:

- Generate multiple insights
- Avoid yes/no answers

- Reveal complexity

Example (non-robust): *“How do housing policies affect communities in Aotearoa?”*

Example (robust): *“How have recent housing policies in Tāmaki Makaurau affected new immigrants’ access to affordable housing and their integration into local communities?”*

Robust questions support richer analysis and more actionable findings. They may also uncover unexpected patterns or consequences.

Conclusion

A good research question:

- Emerges from a well-defined research problem
- Provides a clear purpose and focus
- Evolves with the research process
- Aligns with your methodology
- Identifies key concepts for searching
- Avoids common pitfalls
- Offers potential for meaningful, original insights

Crafting a focused and robust research question is a foundational skill that sets you up for success in academic research.

Review Quiz

A research problem is a specific, answerable inquiry that emerges from a broader issue. True or False?

- False
- True
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-
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-

According to the text, a **well-formulated research question** serves which of the following purposes?

- All of the above
- It helps assess the feasibility of the study.
- It guides the research design and methodology.
- It provides a constant reference point throughout the research process.
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Qualitative research questions are typically:

- Open-ended, exploring experiences or meanings.
- Focused on a yes/no answer.
- Closed-ended, measuring variables or testing hypotheses.
- Too broad to be useful.
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Which of the following is considered a **common pitfall** in designing a research question?

- Being too broad, like "How does education affect society?"
- Avoiding technical jargon entirely.
- Using a framework like PICOT or FINER
- Being too specific, limiting the scope of the research.
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What is the recommended next step after you have a clear research question?

- Immediately begin data collection.
- Break the question into its key concepts.
- Formulate a hypothesis that can be tested.
- Start writing your literature review.
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The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=5#h5p-16>

Acknowledgment

This chapter was adapted from *AIRS: Advanced Information Research Skills* and further developed by Peter Quin.

Further Reading


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CHAPTER 2

Scoping search: Laying the foundation for research

PETER QUIN

INTRODUCTION

The preliminary search, or scoping phase, is an important first step in your research journey. It will help you, as a researcher, to immerse yourself in a broad exploration of the topic. This will provide an overview that helps you clarify your research question, identify key authors, theories and theoretical concepts and frameworks and familiarise yourself with the terminology and discourse in your chosen field. This phase involves getting a feel for the wide range of knowledge in the field. This is particularly valuable for those aiming to find a research gap, as doctoral candidates do. Incorporating AI perspectives can strengthen this scoping phase.

The importance of a scoping search for your postgraduate research

A **scoping search** ensures you build a strong foundation for your work. By conducting a scoping search, you can:

- **Clarify your research question** by refining broad ideas into focused, manageable topics.
- Identify **key themes, trends, and major debates** in your field.
- Discover **important keywords, terms, and influential authors** to strengthen your research and later searching.
- Recognise **gaps in existing knowledge**, helping you shape the direction of your study.
- Understand **controversies and differing perspectives**, so you can position your work effectively.
- **Familiarise yourself with academic discourse**, learning commonly used terminology and writing styles.
- **Strategically plan your research**, choosing the most relevant methodologies and approaches.

PREPARING FOR SCOPING SEARCH

Reflect and engage

Before beginning your initial search, take some time to reflect on what you already know about the topic and identify any gaps in your understanding. Writing down your thoughts and engaging with others can help clarify your ideas and provide new perspectives.

Write down what you already know

Start by brainstorming what you already understand about your topic. Consider the following questions:

- What are the key ideas or themes you associate with this topic?
- Are there any specific examples, case studies, or events you are aware of?
- What questions do you have about the topic?
- What concepts do you not understand?

Writing this down helps organise your thoughts and identifies areas for further exploration.

Example: How Do Housing Policies Affect Communities in Aotearoa?

What I know

Housing policies shape where people live, who they live near, and how communities form. The government uses tools like public housing, rental laws, and first-home grants to help people, but these policies also impact social connections.

Key Ideas

- **Stable housing builds stronger communities:** Affordable, secure homes help people stay in one place, build relationships, and feel connected.
- **Neighbourhood design matters:** Mixed housing and shared spaces can encourage social interaction.
- **Displacement weakens social ties:** Rising rents and redevelopment can force people to move, breaking community bonds.
- **Māori and Pasifika housing needs:** Affordability issues make it harder for these communities to maintain strong cultural and family connections.
- **Government policies help but have limits:** Programmes like Kāinga Ora and the Healthy Homes Standards aim to improve housing, but long-term effects on social cohesion are uncertain.

Examples

- **Tāmaki Regeneration:** Redevelopment displaced residents, disrupting established communities.
- **Papakāinga Housing:** Māori-led housing projects strengthen cultural and family ties.
- **Healthy Homes Standards:** Warmer, drier homes improve stability for renters.

Questions

- How can policies support diverse, connected communities?
- What happens to social ties when people are displaced?
- How can Māori and Pasifika housing challenges be better addressed?

What I need to learn more about

- The impact of renting vs. home ownership on long-term community stability.

- How wages and job security influence housing and social cohesion.
- Whether affordable housing policies keep communities mixed and connected.

By exploring these ideas, I can better understand how housing policies shape communities in Aotearoa.

Engage with experts, academics, and peers to strengthen your research

Talk to experts and academics

Connecting with experts in your field can be incredibly valuable. Consider reaching out to:

- **Academics and supervisors** – Your professors or research supervisors can guide you toward foundational texts, key debates, and reputable sources.
- **Industry professionals** – If your topic is industry-related, speaking with professionals who have firsthand experience can provide real-world insights.
- **Subject librarians** – They can recommend specialised resources, databases, and research strategies tailored to your topic.

Before reaching out, prepare thoughtful questions or discussion points to ensure a focused and productive conversation.

Engage with your peers

Discussions with peers can spark new ideas and offer perspectives you may not have considered. Try these approaches:

- **Share your topic** – Talk about what you're researching and ask for feedback. Your peers might suggest new angles or challenge your assumptions, deepening your understanding.
- **Join study groups or workshops** – Collaborate with others exploring similar topics. This creates opportunities for mutual learning and resource sharing.
- **Participate in online forums or communities** – Engaging in digital spaces can connect you with a wider network of learners and experts, offering diverse insights and up-to-date discussions.

Why this matters

Reflecting on what you know and engaging with others helps refine your topic and strengthens your research journey. Conversations can uncover new perspectives, introduce valuable sources, and inspire a broader understanding of your subject. By starting with dialogue and reflection, you'll approach your research with greater clarity and purpose.

Engaging with Indigenous Knowledge Systems

When researching Māori or Pasifika topics, it's important to engage respectfully and authentically with cultural knowledge and protocols. You can do this by:

- **Consulting with community leaders early** – Seek guidance from iwi, hapū, or Pasifika community representatives to ensure your research aligns with cultural values and practices.

- **Recognising key cultural principles** – Incorporate values such as:
 - *Manaakitanga* (hospitality and care for others)
 - *Kaitiakitanga* (guardianship and stewardship)
 - *Whanaungatanga* (building and maintaining relationships)
- **Acknowledging oral traditions and lived experiences** – Treat these as valuable sources of knowledge alongside written texts.
- **Engaging with experienced academics and supervisors** – Seek advice from researchers who specialize in Māori or Pasifika methodologies to ensure your approach is culturally appropriate.
- **Exploring foundational texts and research guidelines** – Strengthen your understanding of Indigenous research frameworks. A key resource is:
 - *Decolonizing methodologies: Research and Indigenous Peoples* by Linda Tuhiwai Smith – This book examines the colonial history of research and provides guidance on conducting research that respects Indigenous perspectives.
- **Honouring Indigenous data sovereignty** – Use ethical research methods that respect Indigenous data ownership and ensure responsible data collection and use.

By incorporating these cultural perspectives, you can conduct research that is respectful, ethical, and meaningful. Similar principles of respect, consultation, and recognition of lived experience also apply when engaging with other communities, such as immigrant groups or transgender people, whose knowledge systems, identities, and cultural values deserve the same care and authenticity.

STARTING YOUR SCOPING SEARCH

Select the right research tools

Using the right research tools ensures you access a diverse range of sources and develop a comprehensive understanding of your topic. Here's how you can tailor your approach:

- **Library catalogue** – Start with a general search using your university library's catalog to find books, journal articles, and reports related to your topic.
- **Subject-specific databases** – Use your library's database search to find relevant academic databases. If you're unsure which ones to use, reach out to your library's subject specialist librarian for guidance.
- **News, magazines, and professional publications** – These sources can provide insights into current debates and historical events related to your research. Checking industry publications may also be useful.
- **Google & Google Scholar** – General searches can help you discover additional sources, keywords, and emerging research trends. Be sure to cross-check results with academic sources.
- **National Library & Archives New Zealand** – If your research involves historical or policy-related topics, explore their websites or contact them directly for expert assistance.
- **Grey literature** – Government reports, policy documents, and NGO research can provide valuable insights into legislation, policy frameworks, and statistical data.
- **AI-powered tools** – AI platforms can quickly highlight key research areas, influential authors, and available data. However, always verify AI-generated results against trusted academic databases.

By selecting the right tools, you'll ensure your research is well-rounded, credible, and deeply informed.

Example: Finding information on housing policy and social cohesion in Aotearoa – Selecting the right tools

1. Library catalogue

Start with a broad search for books and reports on housing policy, urban planning, and community development in Aotearoa. Keywords like “housing policy New Zealand,” “social cohesion and housing,” or “urban development Aotearoa” can help find relevant resources.

2. Subject-specific databases

Use business, public policy, and social science databases such as Business Source Complete or ABI/Inform, PAIS Index or Scopus. Consulting a **policy or social sciences librarian** can help refine your search.

3. News, magazines, and professional publications

Explore sources like [Stuff](#), [The Spinoff](#), [NZ Herald](#), and [RNZ](#) for housing policy debates, government initiatives, and community responses. Publications like [Policy Quarterly](#) or the [New Zealand Geographer](#) may provide expert analysis on housing and social cohesion.

4. Google searches and Google Scholar

Use **Google Scholar** to find academic research on housing affordability, displacement, and social cohesion in Aotearoa. General Google searches can uncover **case studies on public housing projects, Māori and Pasifika housing experiences, and government interventions**. The **Māori Economy Report** may also have insights into housing issues within iwi and hapū.

5. National Library and Archives New Zealand

Search the [National Library and Archives NZ](#) for historical policies, urban planning documents, and government reports on state housing and social development. They may also have **records on iwi-led housing projects** or past urban renewal efforts.

6. Grey literature

Look at reports from organisations such as [Te Puni Kōkiri](#), [Kāinga Ora](#), the [Productivity Commission](#), and the [Federation of Māori Authorities \(FOMA\)](#). These sources provide **policy evaluations, statistics, and insights into Māori and community-led housing initiatives**.

By using these tools, you can gather a mix of academic, policy, and real-world perspectives to explore how housing policies shape social cohesion in Aotearoa.

Documenting your scoping search: Why it matters

Keeping a clear record of your scoping search is essential for organising your research process. By documenting your strategies, sources, and findings, you ensure that your search is **systematic, reproducible, and easy to review**. This becomes especially useful when refining your focus or revisiting earlier decisions. Here is an example of how to keep a record:

Record of scoping searches

Date	Database/source	Search terms/ keywords	Filters applied	Number of results	Relevant articles found	Notes/Insights
14/8/2025	Te Waharoa	Housing Policies Communities Aotearoa	none	5347	yes, but many not on housing	use phrase for housing concept
14/8/2025	Te Waharoa	"Housing Policies" Communities Aotearoa	none	276	yes, some not aotearoa	expand to NZ as well
14/8/2025	Te Waharoa	"Housing Policies" Communities (aotearoa OR zealand)	none	4305	yes, noticed some newsletters	filter to articles & books & book chapters only
14/8/2025	Te Waharoa	"Housing Policies" Communities (aotearoa OR zealand)	articles & books & book chapters	2616	yes, still getting non-nz	see if NZ is a subject
14/8/2025	Te Waharoa	"Housing Policies" Communities	articles & books & book chapters Subject=New Zealand	144	yes	good set of results to assess further

How to benefit from documenting your search

- **Track effective strategies** – Record which databases, keywords, and filters worked best to avoid repeating searches and improve efficiency.
- **Identify research gaps** – Recognising missing information helps you refine your research questions and focus on areas that need further exploration.
- **Spot emerging patterns** – Noting trends in the literature helps you see key themes and connections.
- **Refine your methodology** – Reviewing your search process allows you to adjust your approach as needed.
- **Explain your research process** – Having detailed notes makes it easier to discuss your research with peers, supervisors, or in academic writing.

By reflecting on what you have learned from your scoping search, you can develop a deeper understanding of your topic and ensure that your research is well-structured and thorough.

ENHANCING YOUR RESEARCH: KEY STRATEGIES

Checking the date of your sources

The **publication date** of a source is crucial in determining its relevance and reliability. In fast-changing fields like **technology, medicine, or policy**, you need the most up-to-date information to ensure accuracy. However, in areas such as **history or foundational theories**, older sources may still hold significant value.

By evaluating the publication date, you can prioritize sources that align with your study's timeframe, ensuring your research remains **credible and contextually relevant**.

Using broad and flexible keywords

Avoid limiting your search by using overly specific keywords. Instead:


- Generate **synonyms** and **related terms** to expand your search.

- Consider **interdisciplinary keywords** that may capture a broader range of relevant literature.

Finding subject-specific databases

For **in-depth research**, use databases tailored to your field. These databases offer **high-quality, peer-reviewed** sources and advanced search tools. Examples include:

- **PsycINFO** – Psychology and behavioral sciences
- **PubMed** – Biomedical literature, life sciences, and health topics
- **Business Source Complete** – Business journals, case studies, and industry reports
- **ERIC** – Education-related research and resources
- **Web of Science / Scopus** – Citation tracking and highly cited papers in sciences and social sciences

 **Tip:** Search your university library's website to find databases relevant to your specific topic. Many databases allow filtering by **methodology, population, geography, or publication type** to refine your search further.

Building your research dictionary

As you explore your topic, create a **research dictionary** with:

- Key **terms, phrases, and concepts** related to your study
- Synonyms and alternative spellings to improve search results
- Discipline-specific jargon that may appear in academic sources

This evolving list helps **streamline your searches across databases and platforms**, making your research process more efficient.

Checking references in key texts

Don't just rely on search engines—use the **reference lists** in academic texts. These bibliographies can guide you to:

- Foundational and **highly influential** works
- Studies that might not appear in initial database searches
- Additional **credible sources** that deepen your research

Incorporating an international perspective

Expanding your research beyond local sources allows you to:

- Compare **global approaches, policies, and innovations**.
- Gain a **broader understanding** of international trends.
- Find **case studies from different cultural or economic contexts**.


Considering spelling variations

To ensure you don't miss relevant sources, account for **different spellings and regional terms**. Examples include:

- **British vs. American English** (e.g., *catalogue* vs. *catalog*)
- Alternative terminology across countries and disciplines
- **Wildcard symbols** (e.g., *wom*n* to capture *woman* and *women*) and **advanced search filters** to include multiple spelling variations


By applying these strategies, you can improve the **depth, accuracy, and efficiency** of your research, ensuring you gather the most **relevant and high-quality** sources for your study.

Staying updated and organising your research



TE HERENGA WAKA— VICTORIA
UNIVERSITY OF WELLINGTON

[Staying informed](#) is an online guide for you.
Learn how to keep up to date with research and researchers.

 Te Pātaka Kōrero
The Library


Stay updated with blogs and social media

To keep up with new developments in your field:

- **Subscribe to RSS feeds, blogs, or social media accounts** of experts in your research area.
- **Follow updates from industry leaders and professional organisations** for the latest insights.
- **Read academic or professional blogs** that discuss your topic of interest.

- **Use tools like Feedly or built-in browser feed readers** to track multiple sources efficiently.

By staying updated, you'll gain a deeper understanding of your topic, discover valuable sources, and build a strong foundation for focused and effective research.

 **Tip:** Always evaluate the quality of information by checking its **relevance, accuracy, and usability** to avoid getting lost in irrelevant details.

Skim and bookmark efficiently

- **Quickly skim** online sources to assess their relevance. If a source isn't useful, move on.
- **Use bookmarks** to save relevant links and organise them into categories based on your research focus.

This approach helps you manage your research materials without wasting time on irrelevant content.

Use citation management tools

Start organising your references early with citation management software to save time later:

- **Zotero** – Great for organising web-based sources and PDFs.
- **EndNote** – Useful for managing references and building comprehensive bibliographies for larger projects.

These tools help you **format citations and bibliographies automatically**, ensuring consistency and accuracy in your research.

By staying updated, skimming efficiently, and using the right tools, you can streamline your research process and stay organised.

Microsoft Word has a References function built in. While it may appear convenient and is suitable for short documents or casual academic writing, it has significant limitations. It offers only basic citation style options, lacks PDF management capabilities, and does not support syncing or collaboration. Zotero or Endnote, among other things, provide robust features for managing large reference libraries, annotating PDFs, and collaborating across devices and teams—making them more suitable for postgraduate academic or research work.

Key areas to focus on in your research

Identify key authors and influencers

When starting your research, make sure to identify the most influential authors and experts in your field. Use research tools to highlight prominent voices, ensuring that your work is informed by leading experts and relevant contributors.

Explore different types of literature

A strong literature review includes a variety of sources. Go beyond traditional journal articles to gain a more comprehensive perspective.

- **Diverse sources** – Incorporate peer-reviewed articles, books, reports, and grey literature.

- **Cultural narratives** – When relevant, include oral histories, case studies, and publications from community organisations to add depth to your research.

Refine your concepts and keywords

As your research develops, refine your keywords to ensure thorough and culturally appropriate searches.

- **Use AI and synonyms** – AI tools can suggest related terms, but always evaluate their relevance and appropriateness.
- **Consider cultural nuance** – Include culturally specific terms and phrases that align with the context of your study.

Make interdisciplinary connections

Looking beyond your immediate field can provide new insights.

- **Link disciplines** – Identify connections between related fields such as education, sociology, or cultural studies.
- **Broaden your perspective** – Consider how integrating multiple disciplines can deepen your understanding of the topic.

Use reference management tools

Staying organised is crucial for efficient research. Use reference management software to keep track of your sources.

- **Organise by theme** – Tag sources with relevant categories to make them easier to find later.
- **Streamline citations** – Use software features to generate bibliographies and ensure consistent formatting.

Why this matters

Focusing on these key areas will help you build a **strong and well-rounded research framework**. By combining **advanced research tools with cultural awareness**, you ensure that your scoping search is both **efficient and respectful**. This approach will provide the foundation for a **thorough, informed, and impactful** study.

Key Takeaways: Scoping search – Laying the foundation for research

1. Why scoping searches matter

- Refine your **research question** and focus
- Identify **key themes, trends, and gaps** in the field
- Familiarise yourself with **key authors and academic discourse**

2. Preparing for your search

- Reflect on **what you already know** and identify gaps.
- Engage with **experts, librarians, and peers** for insights.

3. Choosing the right research tools

- **Library catalogues & databases** – Find academic sources
- **News & professional publications** – Discover current debates
- **Google & Google Scholar** – Broaden keyword searches.
- **National Library & grey literature** – Access historical and policy resource
- **AI tools** – Use for quick insights but verify findings

4. Incorporating cultural perspectives

- **Engage with Māori and Pasifika knowledge** respectfully.
- **Acknowledge oral traditions and cultural values.**
- **Follow Indigenous research frameworks** and data sovereignty principles.

5. Organising & staying updated

- **Track your search process** to refine your focus.
- **Use citation management tools** like Zotero or EndNote.
- **Follow blogs, RSS feeds, and social media** for updates.

6. Expanding your research approach

- **Go beyond journal articles** – Use books, case studies, and community reports.
- **Make interdisciplinary connections** for broader insights.
- **Consider international perspectives** and spelling variations.

Final thought

A well-planned scoping search helps you **build a strong foundation, stay organised, and ensure research depth and relevance.**

Review Quiz

What is the primary purpose of a scoping search?

- To find only peer-reviewed journal articles.
- To get a broad overview of a topic, clarify the research question, and identify key themes.
- To finalise all the sources for the literature review.
- To collect all the data needed for the research.

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According to the text, engaging with Māori or Pasifika topics requires which of the following?

- Only using written, academic sources.
- Consulting with community leaders and acknowledging oral traditions.
- None of the above.
- Focusing solely on government reports

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Which of the following research tools is recommended for finding "grey literature"?

- Reports from organizations such as Te Puni Kōkiri and Kāinga Ora.
- Social media
- Your university's library catalogue.
- Subject-specific databases like PsycINFO.

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Documenting your scoping search is important because it:

- Tracks which strategies were most effective.
- All of the above.
- Helps you identify gaps in existing knowledge.
- Makes your search process reproducible for other researchers.

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The text suggests that a research dictionary should be created during the scoping phase to help with:

- Citing sources correctly.
- Streamlining searches by listing key terms, synonyms, and discipline-specific jargon.
- Organising your research notes.
- Collaborating with peers.
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<https://oercollective.caul.edu.au/research-skills-post-grad/?p=36#h5p-17>



CHAPTER 3

Comprehensive search

PHILIP WORTHINGTON

WHAT AND WHY

You are at a new and higher level in your academic study journey now, and this may be the first time you have undertaken an independent research project. This differs from undergraduate research; you need to learn new skills and be more rigorous and systematic in your approach. You need to run your own projects and carry out your own research data collection, carry out interviews or experiments, create code or material artefacts and so on, depending on your discipline.

To demonstrate and present your understanding, you may have to write a single final thesis, which could be 10,000 words up to 100,000 words. Or your course may require you to research and write one or more of these:

1. Research essay
2. Research report
3. Business report
4. Literature review
 - narrative review
 - scoping review
 - rapid review
 - realist review
5. Systematic Literature review
6. Case study
7. Policy briefing
 - Examples of policy briefings may be found here:
 - [Ministry of Business, Innovation & Employment Hīkina Whakatutuki document library](#)
 - [Ministry for the Environment Manatū Mō Te Taiao briefings, weekly reports and Cabinet papers](#)

Searching matters more at this academic level. You need to be able to survey the **information landscape** and see what is available already written by scholars in the area of your project. It's not good enough to rely on one

database, whatever it is or however good you find it. If you only use one database, you risk not covering your topic sufficiently and missing significant scholarly literature.

Your searching needs to be more thorough, use more than one approach and more than one reputable academic source. You will more than likely be undertaking a literature review, so you need to find the significant scholarly research as it applies to your specific topic. You need to be sure you haven't missed anything that is central or crucial to your project. Your literature search needs to be reproducible. That is, anyone reading your paper needs to be able to find all the sources that you list. It's also important for your credibility that you can document the literature search that you carried out, so that other scholars can see the search methods, steps, and sources that you used.

The kind of comprehensive search you do will vary according to the type of research you are doing. If your research is **quantitative**, your searching will focus on identifying measurable data and statistical information, and you will typically need numerical data, trends, and patterns that can be quantified and analysed statistically. Your search process might involve using databases that provide access to large datasets, surveys, and experiments. If, however, your research is **qualitative**, your searching would focus on sources which explain the meaning and context of human experiences and behaviours. Searches in qualitative research often involve looking for detailed descriptions, narratives, and case studies. Researchers might use sources such as interviews, focus groups, and ethnographic studies to gather rich, descriptive data. The key to your searching is the need to be **systematic** and to **record your results**. Several frameworks guide the searching aspect of academic research, helping researchers systematically and effectively locate relevant literature. These frameworks emphasise structured, strategic approaches to literature searching. They can help you identify areas in which you need to develop your skills and see the bigger picture of how the various research and academic skills interrelate, overlap, and support each other.

Searching frameworks

A searching framework can be useful for structuring your approach to searching. Pick a framework suitable for your research question and field of study. Here are two examples:

PICO Framework (Problem, Intervention, Comparison, Outcome)

The PICO framework is often used in health sciences and other fields involving systematic reviews or clinical questions. It helps researchers structure their search strategy by breaking down the research question into components.

- **P**: Problem/Population – What population or problem is being studied?
- **I**: Intervention – What is the intervention being considered?
- **C**: Comparison – Is there an alternative to compare the intervention against?
- **O**: Outcome – What are the expected outcomes of the intervention?

This framework helps in constructing clear research questions and translating them into search terms. It is widely used in systematic reviews and evidence-based practice searches in databases like PubMed or Cochrane Library (Huang et al., 2006). PICOS is a modified version of PICO with added qualitative search terms which may be used where time and resources are limited (Methley et al., 2014).

SPICE framework (Setting, Perspective, Intervention, Comparison, Evaluation)

The SPICE framework is an alternative to PICO and used especially in social sciences, where the research is often more qualitative and contextual. It helps in formulating research questions and structuring searches.

- **S:** Setting – What is the setting or context of the research?
- **P:** Perspective – Whose perspective is being considered (e.g., stakeholders, users)?
- **I:** Intervention – What is the intervention or initiative under study?
- **C:** Comparison – What is being compared to the intervention?
- **E:** Evaluation – What are the measures of success or impact?

SPICE is particularly useful in interdisciplinary fields where the research context (e.g., education, healthcare, social policy) plays a major role (Booth, 2006).

These frameworks provide structured and systematic methods for conducting literature searches. They will help you to break down your research questions and develop search strategies, and using these frameworks will ensure comprehensive and efficient searching, essential for postgraduate research. Each framework is adaptable to specific fields, from clinical and social sciences to qualitative research.

Example using SPICE

Research topic: *What is the interface between housing policy instruments and social cohesion in Aotearoa New Zealand?*

- **S: Setting** – What is the setting or context of the research?
 - Aotearoa New Zealand
- **P: Perspective** – Whose perspective is being considered (e.g., stakeholders, users)?
 - Policy makers
 - Housing Minister
 - Cabinet
 - MPs
 - Government officials
 - Homeless people
 - Homeowners
 - Housing providers
- **I: Intervention** – What is the intervention or initiative under study?
 - Government policy instruments
- **C: Comparison** – What is being compared to the intervention?
 - Not applicable
- **E: Evaluation** – What are the measures of success or impact?
 - Measures of housing need
 - Measures of homeownership
 - Measures of homelessness
 - Measures of social cohesion
 - Other measures of policy effectiveness?

HOW – TRADITIONAL

The traditional way of searching is tried and true and relies on you being competent at using some specific skills and the advanced features of academic databases. If you are not yet accomplished at these, spend the necessary time and focus on learning and practising them. How and when to apply these is as follows.

An iterative art – not particularly scientific

So, what is searching at this level like? What is the nature or style of it? You might think it is a scientific thing to learn and quite deterministic and sequential. Well, it is not at all. You will need to try things out and see what works and what doesn't. It's a process of trial and error, reviewing, revising, tweaking, making some decisions, and trying different approaches, maybe using a different database but always with a critical focus. What is scientific is the need for **observation** of your results and the database screens. You will do your best searching when you are calm, present, mindful and focused. Set aside a time when you can be in this state of mind.

Key questions

When reviewing your results consider these questions:

- Am I finding the papers I need?
- Do they contribute to answering my research question?
- How do they contribute to answering my research question

Be systematic

Compared to searching at undergraduate level, your searching needs to be systematic, more detailed, and comprehensive, and most likely using more than one source.

Being systematic means:

- Considering all sources relevant to your research question
- Searching each with equal thoroughness
- Applying the same search criteria
- Recording your search strategies and sources in a high level of detail

It may also mean:

- Learning new search techniques
- Using discipline-specific search tools, features, or database fields you have not used before

Record results

Key questions

- How will you know when you have searched all relevant sources?

- How will you know you have been systematic?
- How will you show your supervisor you have searched thoroughly?

Effectively recording search results is crucial to demonstrating a thorough and systematic approach to academic research. To ensure all relevant sources have been searched, begin by documenting your search strategy, including the databases used, search terms, and applied filters. This transparency lets you track gaps or overlaps in your sources and ensures you can replicate your searches if needed. It also allows peer review or critique.

Being systematic requires adopting structured practices like using search logs or tools such as spreadsheets, citation managers, or research notebooks. These should detail each step of your search process, including keywords, Boolean operators, database coverage, and date ranges. This approach helps you evaluate whether your searches align with your research scope and prevents overlooking materials.

Recording results systematically provides a clear, credible foundation for further research.

How you record your searches and results is up to you. These are common ways:

Literature organiser

Why use a Literature Organiser?

A literature organiser document provides a structured way of organising the literature or data you find. Think of the process of using it as a visual display of your research trail, one which helps keep you on the track of your searching plan and focused on your research topic.

Share your literature organiser with a librarian or your supervisor who may offer more focused feedback and suggestions on your progression of thought and discovery of sources and literature themes, assisting you in progressing your research tasks and literature searching.

Formatting a Literature Organiser

There are a variety of ways to arrange your research trail within a literature organiser document. Collate and organise your search strategies and findings in a unique way that best suits you. Some software suggestions for you to use in formatting your organiser document:

- A Word table
- An Excel spreadsheet
- Other tools such as Miro, NVivo and Obsidian

The literature organiser provided here is one approach.

Literature Organiser

Research question: What is the interface between housing policy instruments and social cohesion in Auckland?

Keywords and Key Phrases:

housing - housing - forms: "social housing" - "public housing" "housing policy" - "social housing policy" - "public housing policy"

"social cohesion" - "community cohesion" - "urban regeneration" Auckland - Zealand

well-being wellbeing - well-being

Sources

Search tool/database	Search strategy	Search limits	Search Results – your brief comments, themes and brief evaluation
Library Catalogue	"social cohesion" housing Zealand	Subject: Housing Date: 2011-2022 Source Type: Article	Rangunatha, L., Paine, N., Chapman, L., & Howden-Chapman, P. (2022). Public housing and well-being: Evaluation of interventions influence policy. <i>Health Services Research</i> , 57(4), 1617-1631. doi:10.1111/hsc.13920 Evaluation Notes: Paparahanga (original): historical context of NZ public housing provision, Howden-Chapman housing expert with much more Aranga (New): develop evaluation that assess the impact of public housing construction and regeneration on tenant well-being focus, Tātai Hōuanga (operations): connects public housing, well-being, and urban regeneration, Māiwhānonga (understanding): fosters understanding of the housing topic by suggesting evidence tool to compare and measure effects of social housing policy
ProQuest Central journal database	"social cohesion" housing Zealand	Subject: Housing Date: 2011-2022 Source Type: Scholarly Journals Peer Reviewed: Yes	Rowley, B., McKeachie, L., Thompson, L., & Brighton, J. (2007). Māori experiences of social housing in Ōtautahi Christchurch. <i>Kōwhiri Aho: Journal of Homelessness</i> , 2(1)-4. https://doi.org/10.1080/17447020701409200 Evaluation Notes: Paparahanga (original): historical policies & practices have shaped social housing needs of Māori in NZ, authors are uni. researchers & have many recent publications Aranga (New): kaupapa Māori research focus, Tātai Hōuanga (operations): connects to broader context of social determinants of health, Māori well-being etc, Māiwhānonga (understanding): contributes to deeper understanding of lived experiences of social housing tenants and context of my topic.

Created by Catherine Doughty

Example

These tables are examples of documenting a comprehensive search in an academic research paper

Table 1. Housing crisis versus housing market story frames for the New Zealand Herald (1st April 2014 to 31st March 2024).

New Zealand Herald	Articles	Percentage
Total Articles with "House", "Property", "Real Estate" ^a	48,944	100%
Also includes: "Housing Crisis", "Homelessness", etc ^b	2442	4.99%
Also includes: "Investor(s)"/"Investment(s)", "Market" ^c	19,778	40.41%
Also includes: "Buy(ers)"/"Sell(ers)" ^d	16,205	33.11%
Also includes: "Bubble"/"Crash" ^e	227	0.46%

^a Total articles, including any of: "house", "housing", "property", "real estate".

^b Subset of total, also including social/political terms: "housing crisis", "homeless(ness)", "social housing", "emergency housing".

^c Subset of total, also including: "investor(s)", "investment(s)", "market".

^d Subset of total, also including: "buy", "buyer(s)", "sell", "seller(s)".

^e Subset of total, also including "housing ...", "property ...", "housing market ...", "house price ...", plus "bubble" and/or "crash".

[Download CSV](#)

Table 2. Housing crisis versus housing market story frames for the *The (Dominion) Post* (1st April 2014 to 31st March 2024).

The (Dominion) Post	Articles	Percentage
Total Articles with "House", "Property", "Real Estate" ^a	43,811	100%
Also includes: "Housing Crisis", "Homelessness", etc. ^b	2625	5.99%
Also includes: "Investor(s)"/"Investment(s)", "Market" ^c	12,473	28.47%
Also includes: "Buy(ers)"/"Sell(ers)" ^d	11,382	25.98%
Also includes: "Bubble"/"Crash" ^e	104	0.24%

^a Total articles, including any of: "house", "housing", "property", "real estate".

^b Subset of total, also including social/political terms: "housing crisis", "homeless(ness)", "social housing", "emergency housing".

^c Subset of total, also including: "investor(s)", "investment(s)", "market".

^d Subset of total, also including: "buy", "buyer(s)", "sell", "seller(s)".

^e Subset of total, also including "housing ...", "property ...", "housing market ...", "house price ...", plus "bubble" and/or "crash".

Download CSV

Source: Davis, A. (2025). Housing news and the enrolment of publics into the asset economy in Aotearoa New Zealand. *Journalism Studies*, 1-19. <https://doi.org/10.1080/1461670X.2025.2547303>

YOUR SEARCHING TOOLKIT

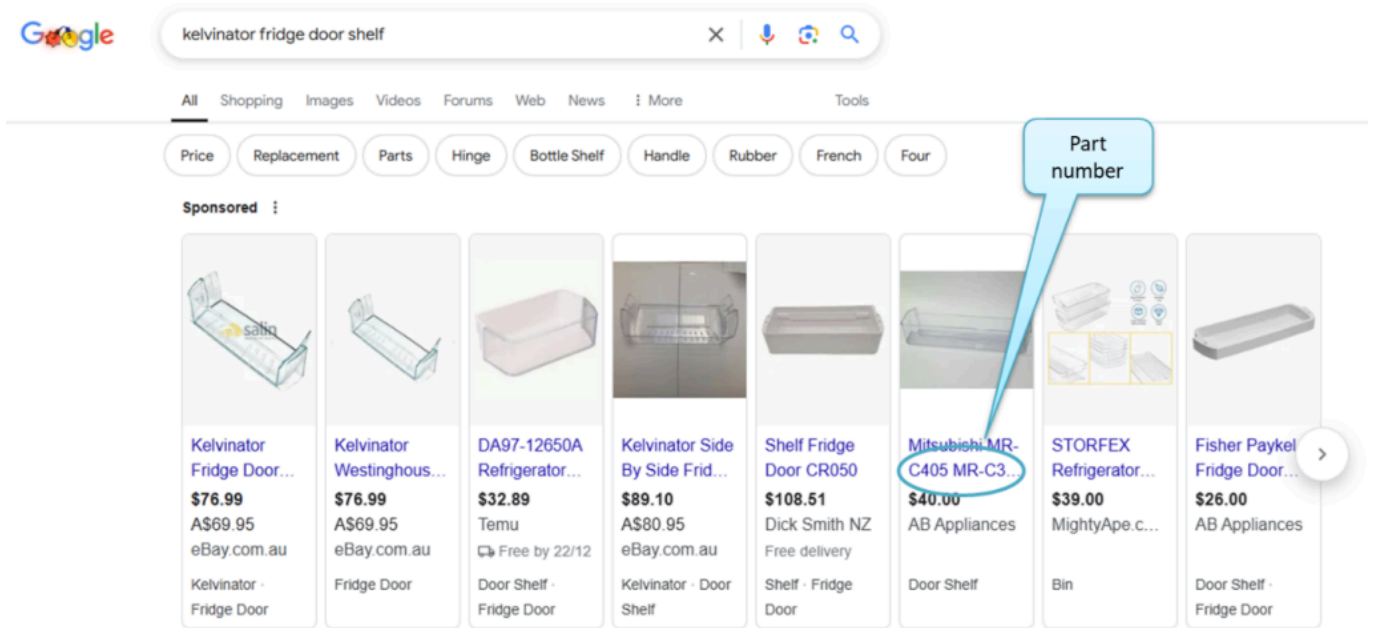
All the tools described and demonstrated below make up your traditional searching toolkit.

Keywords, concepts and phrases

Your research question and scoping searching from the previous chapters are your starting point. You have the keywords, concepts and phrases which you have used to scope out the academic literature on your research topic. I recommend laying out your keywords, concepts, and phrases on paper or in a simple online file. This allows you to visually structure and arrange the raw material you will use for your comprehensive search.

Selection of keywords

The keywords you choose to use in a search will make a huge difference to the result. You will already know this from your everyday life and use of Google for online shopping and looking up information. It is just the same when searching for academic literature for a research project. For example, suppose you have a broken shelf in your refrigerator. You might start searching with the keywords "Kelvinator fridge door shelf", and plenty of results come up, but none quite match your particular fridge. Looking at the first page of results, you notice part numbers and some terminology specific to refrigerator spare parts:



So you modify your search by using part numbers and/or the particular terminology used within the knowledge domain of refrigerator spare parts. You will need to do the same things in your comprehensive research search, except now you have a larger toolkit. All the tools in this section of the book are available for you to use as required for a comprehensive search. By applying your critical thinking skills and knowledge of the subject domain and your research topic, you can select and effectively use the appropriate tools.

Combining search terms

Combining search terms is a fundamental skill in structuring searches. It uses the words AND, OR and NOT to connect search terms. These are called **Boolean operators**. By using Boolean operators you can broaden your search to find more results or narrow your search to find fewer. Broadening increases your **recall**, and narrowing increases your **precision**. If you find you are getting irrelevant results because of one particular term in your search, you can also exclude it by using NOT.

AND: Narrows the search by combining terms (e.g., "social cohesion" AND housing). Both terms must be present. AND is usually the default operator.

The dark green area shows all the records with both terms.



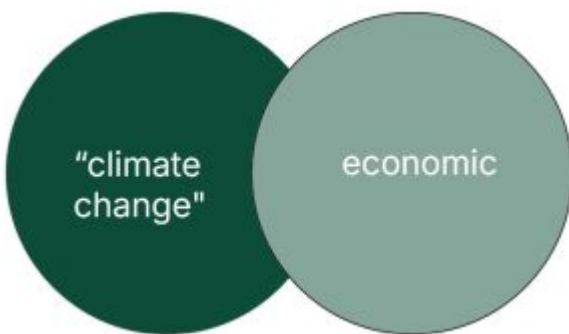
OR: Broadens the search by including synonyms or related terms (e.g., "new zealand" OR "aotearoa"). Only one term need be present for the record to be found.

The dark green area shows all the records with at least one of the terms.



NOT: Excludes unwanted terms (e.g., “climate change” NOT economic”).

The dark green area shows all the records with one term but not the other.



See [Keyword or phrase searching](#) for more examples of how to combine search terms.

Truncation

Truncation refers to a way of shortening your search term and allowing the database to search for word variations of the term. This is useful to broaden your search and ensure you do not miss relevant results. Most databases use an asterisk * as a ‘wildcard’ substitution for one or more other letters to do this.

Example:

Social cohes*: captures “social cohesion,” “social cohesive,” “social cohesiveness.”

<input type="checkbox"/>	Set ▼	Search	Databases	Results
<input type="checkbox"/>	S6	⊕ Social cohes*	ProQuest Central	791,134
<input type="checkbox"/>	S5	⊕ Social cohesion	ProQuest Central	545,964

Phrase searching

Phrase searching refers to a way of searching for just the words in a phrase. It is a powerful way to focus a search on a concept. In keyword searching, such as a Google search, you enter keywords. The search engine looks for those keywords wherever they appear in its index and returns the results. Generally, the results are then relevance ranked so the most relevant appear at the top of your search. This is fine for simple searching since it does what you want. For a comprehensive search, though, it can be problematic, and the use of phrase

searching will enable you to be more precise and reduce the number of irrelevant results that you would otherwise have to look through.

Example:

Enclose your desired phrase in quotation marks. "Housing policy" finds the exact phrase housing policy, that is, the word "housing" immediately preceding the word "policy". Do this, and your search will **only** return records which have the phrase "housing policy". Without the quote marks, the system will search by default for both housing AND policy.

<input type="checkbox"/>	Set ▼	Search	Databases	Results
<input type="checkbox"/>	S3	⊕ "housing policy"	ProQuest Central	112,973
<input type="checkbox"/>	S2	⊕ housing policy	ProQuest Central	4,041,150

Field searching

Field searching limits where the database searches for your terms within the metadata for the records. Instead of searching for your terms across the whole database, which may include full text, you can limit your search to fields such as Title or Abstract, increasing the relevance and focus of your search. This is a way of narrowing your search.

Example:

Limit a search for "housing policy" to the Title field. In this database, this search will be limited to documents that have the words "housing" and "policy" in their title. They are, therefore, likely to be mainly about housing policy. The downside of this approach is that you may miss papers that deal with housing policy yet do not have these precise words in their title, so be cautious when using this approach. I only tend to use it when it is difficult to get a small enough number of results.

<input type="checkbox"/>	Set ▼	Search	Databases	Results
<input type="checkbox"/>	S2	⊕ title(housing policy)	ProQuest Central	15,142
<input type="checkbox"/>	S1	⊕ housing policy	ProQuest Central	4,041,256

The subject of an academic paper tends to be reflected in the title, abstract and descriptor or subject fields, and it is often possible to limit your search to these fields in one search. This is a middle course between limiting to Title and not limiting at all. Learn how to browse the fields for faceted subheadings and gain some familiarity with the restricted vocabulary sets the database uses. This will pay off by enabling more precise searching and is shown below.

Example:

“Summary” searches all abstract and summary text in this database

<input type="checkbox"/>	Set ▾	Search	Databases	Results
<input type="checkbox"/>	S3	⊕ summary(housing policy)	ProQuest Central	103,321
<input type="checkbox"/>	S2	⊕ title(housing policy)	ProQuest Central	15,142
<input type="checkbox"/>	S1	⊕ housing policy	ProQuest Central	4,041,256

Field searching using “Summary” field

Notice the results numbers:

Search history

Search no.	Search	Limit	Result	Comment
S1	“housing policy”	Unlimited	4,041,256	Rather too many to go through!
S2	“housing policy”	Limited to Title	15,142	A reasonable number to start with and further refine the search down
S3	“housing policy”	Limited to Summary	103,321	A middle course

Subject headings

Subject headings are very useful features of many databases. A human being has read an academic paper in a database and decides on its main subjects. They then assign a defined piece of text, usually called a descriptor or subject heading, to that item. The metadata for that item then has additional controlled access points to the subject content of the paper. You, as the searcher, can use these headings to do a specific narrow search looking for that subject content.

- Your research question will cover several concepts
- Your comprehensive search can use subject headings relating to these concepts
- The subject headings can be combined to cover papers relevant to your research question

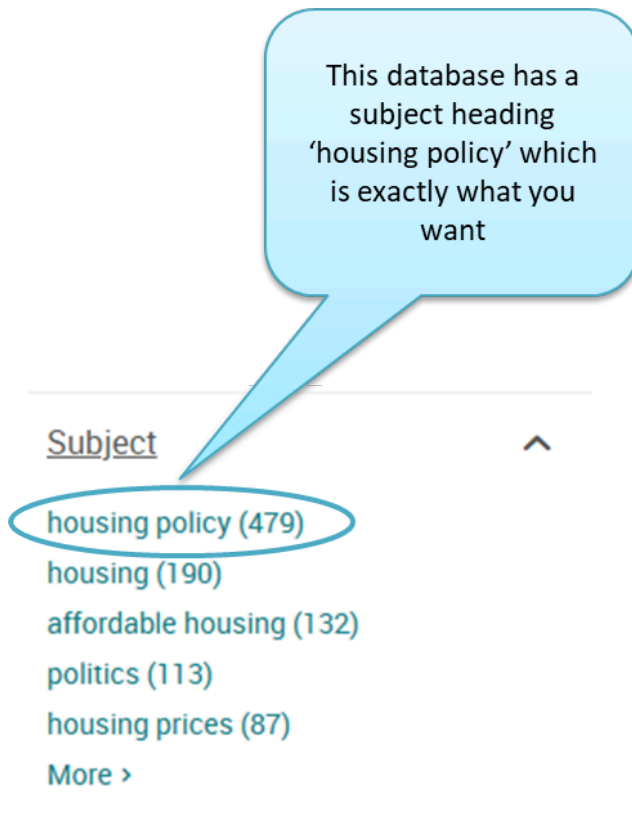
Example: Start with a search that will give you relevant results. [This search](#) gives 876 results, and they look relevant:

“noft” means no fulltext. The search covers all fields except the fulltext

<input type="checkbox"/>	Set ▾	Search	Databases	Results
<input type="checkbox"/>	S2	⊕ noft(“housing policy”) AND (zealand OR aotearoa)	44 databases	876
<input type="checkbox"/>	S1	⊕ noft(housing policy) AND (zealand OR aotearoa)	44 databases	10,247

There are two ways to go now.

1. In the left-hand filters pane, open Subject, by clicking on the down arrow:



Click on 'housing policy' now, and you will get back 479 items with 'housing policy' as a subject heading combined with the '(zealand OR aotearoa)' part of your search. You have effectively started with a search to identify papers on housing policy in New Zealand/Aotearoa and then refined your search to only those papers which have the subject heading 'housing policy'. A subject heading may have a sub-heading. For example the Waitangi Tribunal report *Kāinga kore : the stage one report of the Housing policy and services kaupapa inquiry on Māori homelessness*, has these subject headings with subdivisions:

Housing policy — New Zealand
Homelessness — New Zealand
Māori (New Zealand people) — Housing — New Zealand

The database also has 'Location' as a filter. This is a more precise way of refine your search:



Click 'New Zealand' now to filter your search further to only 104 items with 'housing policy' as a Subject heading that also have New Zealand as the Location:



Looking at the first page of the results, this will be a good set to go through one by one and assess for inclusion in a literature review:

1  **Investigating the New Zealand Government's Understanding of Homelessness in Aotearoa New Zealand 2008–2018: A Systematic Review of Grey Literature**
 Shum, Renee. *New Zealand Population Review*, Wellington Vol. 48, (2022): 7-45.
 ...through the development of the Aotearoa New Zealand Homelessness Action Plan...
 ...understandings of homelessness in Aotearoa New Zealand. Keywords: homelessness...
 ...around housing in Aotearoa New Zealand, it is now widely accepted that after...
[Abstract/Details](#) [Full text - PDF \(681 KB\)](#)

2  **'The way to end housing problems': tenant protest in New Zealand in the 1970s**
 Chisholm, Elinor. *Kotuitui: New Zealand Journal of Social Sciences Online; Abingdon* Vol. 17, Iss. 4, (Dec 2022): 445-460.
 ...to protect and promote tenant interests; a rare occurrence in New Zealand's...
 ...renters in New Zealand during the 1970s paid high rents...
[Abstract/Details](#) [Full text - PDF \(1 MB\)](#) [107 References](#)

3  **Statistical Representations of the Housing Problem in Briefings to Incoming Ministers, 2008–2020: The Politics of Housing Numbers**
 Alternate title: Ngā Whakaaturanga ā-Tauanga o te Raruraru Whare Noho i ngā Kupu Whakamārama ki ngā Minita Hou, 2008-2020. Ngā Take Torangapū mō te Maha o ngā Whare Noho
 Barrett, Patrick; Garrett-Walker, Reuben. *New Zealand Population Review, suppl. SPECIAL EDITION: Housing at the heart of place, people and population; Wellington* Vol. 47, (2021): 305-331.
 ...of the facts in New Zealand housing policy discourse. The focus of the...
 ...housing policy in New Zealand, the evidence in this case coming from the...
 ...and back: Housing policy and state housing in New Zealand. *GeoJournal*, 59(2),...
[Abstract/Details](#) [Full text - PDF \(533 KB\)](#)

2. Alternatively, you can look through the first page or two of the results and critically evaluate them, then:

- pick two or three which are the most relevant to your research
- look at the subject headings in them (click Abstract/Details):

Investigating the New Zealand Government's Understanding of Homelessness in Aotearoa New Zealand 2008–2018: A Systematic Review of Grey Literat...
 Shum, Renee. *New Zealand Population Review*, Wellington Vol. 48, (2022): 7-45.

Full text - PDF

Abstract/Details

Alternate abstract:

In recent years, homelessness in New Zealand has gained significant policy recognition as evident through the development of the Aotearoa New Zealand Homelessness Action Plan. Prior to this Government-led crossagency plan to end homelessness, the issue remained politically marginalised. Despite the existence of both the official New Zealand definition of homelessness (Statistics New Zealand, 2009, updated 2015) and the operationalisation of this definition in severe housing deprivation in New Zealand (Amore et al., 2013), understandings of homelessness remained open for debate and interpretation among government officials and politicians. In the absence of a consistent definition of homelessness, this paper explores how homelessness was understood by government officials and politicians between 2008 and 2018, and considers the contribution of the action plan to shape government understandings of homelessness in Aotearoa New Zealand. [Zealand Demographic Society">Less ^](#)

Details

Subject

- [Politicians;](#)
- [Grey literature;](#)
- [Research methodology;](#)
- [Literature reviews;](#)
- [Homelessness;](#)
- [Deprivation;](#)
- [Government;](#)
- [Politics;](#)
- [Homeless people;](#)
- [Housing;](#)
- [Public officials;](#)
- [Definitions;](#)
- [Systematic review;](#)
- [Housing policy;](#)
- [Social](#)

Location [New Zealand](#)

In this case, you discover 'housing policy' is a subject heading, and there are others which may be pertinent to your topic, such as 'homeless people', 'housing' or 'deprivation'.

Note: If you click a subject heading from the screen above (a full record), you will lose the other parts of your search. So, it is better to make a note of the subject headings that are relevant and do a new search using the Advanced Search screen

Enter "housing policy" and choose Subject from the field dropdown:

Advanced Search Command Line Recent searches Thesaurus Field codes Search tips Victoria University of Wellington

"housing policy" in All subjects & indexing – SUBJECT*

AND zealand OR aotearoa in Anywhere except full text – NOFT

If you choose MAINSUBJECT you can look up Subjects:

Advanced Search Command Line Recent searches Thesaurus Field codes Search tips Victoria University of Wellington

| in Subject heading – MAINSUBJECT*

AND zealand OR aotearoa in Anywhere except full text – NOFT

[Look up Subjects](#)

Enter the start of the subject and press Find, then click the subject you want and Add to Search:

Look up Subjects

A thesaurus is available for this product, providing structured, hierarchical indexing terms: use the [Thesaurus](#).

Enter a name

housing p Find

Contains Begins with

All [0-9](#) [A-C](#) [D-F](#) [G-I](#) [J-L](#) [M-O](#) [P-R](#) [S-U](#) [V-Z](#)

Combine terms with: OR AND Add to search

◀ Previous 100 [Next 100](#) ▶

Subjects	Count*
<input type="checkbox"/> housing ploicy 20th century zambia lusaka.	1
<input type="checkbox"/> housing policy	20948
<input type="checkbox"/> housing policy - environmental aspects	1
<input type="checkbox"/> housing policy - france	1
<input type="checkbox"/> housing policy - great britain	1

◀ Previous 100 [Next 100](#) ▶

* The counts displayed could differ from the actual results: duplicated results and punctuation variances are ignored when the search is run.

Close Add to search

Search history and saving searches

Most academic databases will let you save your searches. This is extremely useful for two reasons. Firstly, if you save your searches, you have a record of the actual searches you used for your literature review. You can cut and paste this information when writing up the literature review’s search section. Secondly, when you are searching, it allows you to look back at the searches you have done in a session and see the number of results found for each search. You can use this to assess the usefulness of that particular search and decide whether or not to persist with it. You can usually click on the search in the search history of the database to rerun the search and review the relevance of the results. Some databases will also allow you to combine two or more searches from your search history in one new search without having to re-enter each one.

Learn how to use the search history to save, modify and repeat searches in the databases you are using – it is a very useful skill at this level.

This is an example of the search history in the [ProQuest](#) database:

<input type="checkbox"/>	Set ▼	Search	Databases	Results
<input type="checkbox"/>	S4	"housing policy" NEAR/20 "social cohesion" ✓ Limits applied Databases: 43 databases searched View list ▼ Narrowed by: Peer reviewed	43 databases	37
<input type="checkbox"/>	S3	"housing policy" NEAR/20 "social cohesion" Databases: 43 databases searched View list ▼	43 databases	117
<input type="checkbox"/>	S2	"housing policy" AND "social cohesion" Databases: 43 databases searched View list ▼	43 databases	7,478
<input type="checkbox"/>	S1	"housing policy" Databases: 43 databases searched View list ▼	43 databases	171,879

This database has the NEAR command which lets you specify the number of words between the search terms. In the last search (S4) the phrase “housing policy” must appear within 20 words of the phrase “social cohesion”.

Finding similar or related papers

When you find a research paper which is very significant for your research, you can it to find further papers. There are three similar techniques for this.

Pearl growing

When you read paper you realise this is a pearl and you become aware of concepts, keywords, authors, phrases, ideas or methods, which you then use in further searches.

Cited reference searching

This approach involves tracking the references cited by a specific document (backward citation) or finding newer documents that cite the original document (forward citation). It helps researchers identify connections in the literature, trace the evolution of ideas, or discover new relevant research based on a key paper.

Citation chasing

As the [Scoping Search chapter](#) mentions, reading a text's reference list or bibliography can be an excellent way to find related literature. This process is often called "citation chasing" or "snowballing", and is particularly useful at the beginning of a new research project since your supervisor or lecturer will normally provide you with several texts as a starting point.

Because citation chasing doesn't operate using keywords, it has some advantages over traditional keyword searching:

- You don't need to know what keywords to search for before searching – in fact, citation chasing can be a great way to find out what your topic's keywords are
- Texts that use synonyms to your search terms will still be found
- Keyword searches can become cluttered by irrelevant topics with keyword crossover; by citation chasing, you're exploring a better selection of sources which are directly relevant to your topic
- Occasionally citation chasing will find articles from adjacent topics you weren't expecting, opening up new research avenues

These advantages make citation chasing a healthy way of diversifying your search strategy, in a similar manner to diversifying your search databases, and protects you from missing important works.

Additional resources

- [How do I find information sources? \(QUT Study Smart\)](#)
- [Search techniques: Understanding AND, OR, & NOT](#) (3 min video)
- [Assignment research help > Find](#)

Te Herenga Waka—Victoria University of Wellington



[Digital Research Tools](#) has information and resources for NVivo and Miro for Research (Access is restricted to current students and staff)

AI TOOLS FOR COMPREHENSIVE SEARCH

Key Takeaways

- AI is transforming how we interact with information and create new knowledge
- Knowing the landscape you're working in is critical
- Information literacy and discovery frameworks and values apply more than ever
- Research values and skillsets are more important than ever
- Learn to do it the hard manual way first

There are many generative AI tools that will do a good job of comprehensive searching for a literature review. Indeed, the tools are developing so quickly and improving in such great leaps and bounds that there are almost no parts of the academic research process that can't be done by them. The growing capability of AI to perform traditional academic tasks means the future of knowledge work and 'the university' is changing rapidly. Several questions arise:

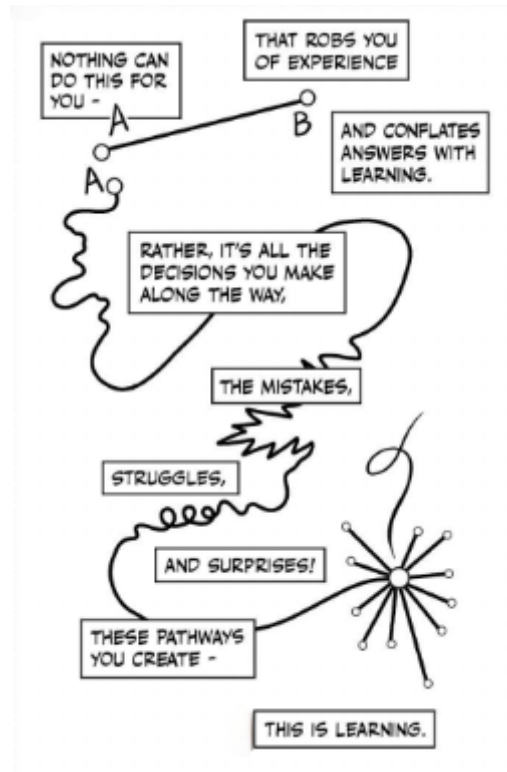
- To what degree do you still need to demonstrate research capabilities when you can use AI as a lever for higher-order reasoning?
- Does the growing competence of AI tools demand you prioritise, identify, apply, and extend the kinds of judgment, contextual sensitivity, and ethical reasoning that remain distinctly human?
- Does task completion signal true understanding?
- Is a researcher using AI vulnerable to the "persistent illusion of learning"?
- How does AI reveal its limits¹ and what happens if you don't understand those limits?

The illusion of learning and unproductive success²

If you use an AI tool on a task you have not mastered yourself, you are likely to be giving yourself an "Unproductive success" and subjecting yourself to the **illusion** of learning. Students who "maximize performance in the shorter term without maximizing learning in the longer term," are creating "an illusion of learning" (Kapur, 2016). As Wolf (2025) puts it "True beliefs are not the same as understanding", which is to say that you may have found the right information, answers or facts, but have no or little understanding of their context and how they relate to your prior knowledge.

You don't understand that you don't understand. AI can limit your own learning by threatening the retention of knowledge and destroying internal motivation. You may think to yourself "If AI can do it, why do I need to know how?", and "I can avoid the stress of learning". With the use of AI, you also face a lack of feedback on your work and the means to check on your understanding, and therefore you can proceed through the research process with a dangerous illusion you are really learning.

1. Bennett, M., Randal, J., & Wolf, A. (2025, August 1). *Dispelling the illusion of learning: Shifting the culture for professional students in an AI future* [Conference presentation]. AI & Society, Wellington, New Zealand. https://ecs.wgtn.ac.nz/Groups/AI_and_Society/AI_and_Society_Seminars#T2
2. Bennett, M., Randal, J., & Wolf, A. (2025, August 1). *Dispelling the illusion of learning: Shifting the culture for professional students in an AI future* [Conference presentation]. AI & Society, Wellington, New Zealand. https://ecs.wgtn.ac.nz/Groups/AI_and_Society/AI_and_Society_Seminars#T2



*AI and Learning. Image © Nick Sousanis
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Embrace automation?

I say you should **never** use a generative AI tool for a task or skill that you haven't first learned yourself the hard traditional way. Imagine you have a meeting with your supervisor and they ask you how the topic analysis for your literature review is going. What do you say?

- **Your AI-enabled version of your academic self:**

Oh I am finding it brilliantly easy, I got a sub to Consensus/Perplexity/[insert another favourite AI tool], uploaded the papers, let it analyse them and it generated a topic analysis report for me. I'll paste that in to my thesis today

- **The version of yourself enabled through the practice of traditional methods:**

I am finding that difficult. Just the sheer amount of reading takes more time than I expected, but I am discovering some new lines of inquiry and modifying my set of topics as I go. Can I show you now?

Who has learnt academic skills?

Generative AI tools are not just a neutral tool or something that can be picked up and put down and they present accuracy and ethical concerns. For information discovery they have limitations in:

- Quality – prone to “hallucination,” generating plausible-sounding but incorrect or fabricated information
- Depth – lack the ability to perform genuine critical thinking, generate truly novel insights, or engage in the nuanced, in-depth analysis and synthesis of information required for original research
- Bias – may reflect or amplify biases present in training data
- Scope – most use only a subset of the world's academic literature

These limitations affect the ability to provide a complete information picture in any given scenario. Remember generative AI tools are trained to speak plausibly about everything but actually understand nothing.

Opportunities and Challenges

Research benefits	Research challenges
• Summarisation	• Integrity / misuse
• Interpretation	• Privacy
• Analysis	• Legislation
• Visualisation	• Information bias
• Mapping	• Content authenticity
• Connections	• Transparency
• Reviewing	• Dependence
• Gap analysis	• Implementation
• Hypothesis	• Staff capability
• Translation	• Equity
• Workflow	• Relationships
	• Sovereignty
	• Cost

Critical evaluation of AI tools

Critical evaluation skills ensure information is:

- Accurate
- Reliable
- Unbiased
- Relevant for the purpose

This rubric can be used to evaluate tools: [Rubric for Evaluating AI Tools \(Academics and researcher\)](#)

“We want our students to develop the higher order skills of being able to critique writing produced by AI chatbots and to direct the outputs of new technologies. But those skills depend on more fundamental skills and there is no way we can jump ahead to the more advanced skills without acquiring the more basic skills first. In order for students to successfully grapple with problems computers cannot do, they must work through problems that computers can do.”

Christodoulou, D. (2023, February 5). If we are setting assessments that a robot can complete, what does that say about our assessments? *Medium*. <https://blog.nomoremarking.com/if-we-are-setting-assessments-that-a-robot-can-complete-what-does-that-say-about-our-assessments-cbc1871f502>

AI TOOLS FOR LITERATURE SEARCHING

AI tools can be great companions during the literature search process. They are good at quickly finding relevant papers, summarising key ideas, spotting patterns across lots of texts and so on. They can surely save you time—but it’s important to understand they’re there to **complement** and **not replace** your thinking, critical reading, and evaluation and synthesis skills. AI tools can vary in quality, reliability and access to

academic sources. I believe it is a good practice to explore these tools critically and discuss their use with your supervisory team. This will ensure that any such AI tool you choose will align with the expectations and standards of your field and University. You must always understand your University's current policies regarding the use of AI for research.



TE HERENGA WAKA — VICTORIA UNIVERSITY OF WELLINGTON

Use of AI for coursework

- Can be a learning opportunity and a tool to support learning, but its use should be purposeful, critically evaluated, and aligned with the learning outcomes of the course
- Whether you should use AI to conduct a literature review is not a universal rule but depends on the specific guidelines provided by your course coordinator
- If you do use AI, you must do so responsibly, ethically, and with proper acknowledgement
- Unauthorised substantial use of AI in coursework can be considered academic misconduct. You should consult your course materials and your instructor for specific guidance on their expectations regarding the use of AI in literature reviews for your course

Use of AI when writing a thesis

- General rule against unauthorised substantial use: the unauthorised use of or consultation with generative AI technologies by doctoral and master's by research students to provide assistance with any substantial component of their research or thesis shall be treated as potential academic misconduct under the Academic Integrity Policy for Students
- Acknowledgement of AI use: Any use of generative AI technologies in the thesis must be acknowledged in accordance with appropriate citation standards and library guidance
- Doctoral and Master's by research students: Must comply with the Doctoral Regulations, Master's Thesis Regulations, and the Academic Integrity Policy for Students. This overarching requirement means that the use of AI in thesis writing must adhere to these regulations and policies.

Sources: Staff AI guidelines & Generative Artificial Intelligence Policy



The use of AI at Te Herenga Waka—Victoria University of Wellington (Academic Integrity and VUWSA)

EXAMPLES OF AI TOOLS

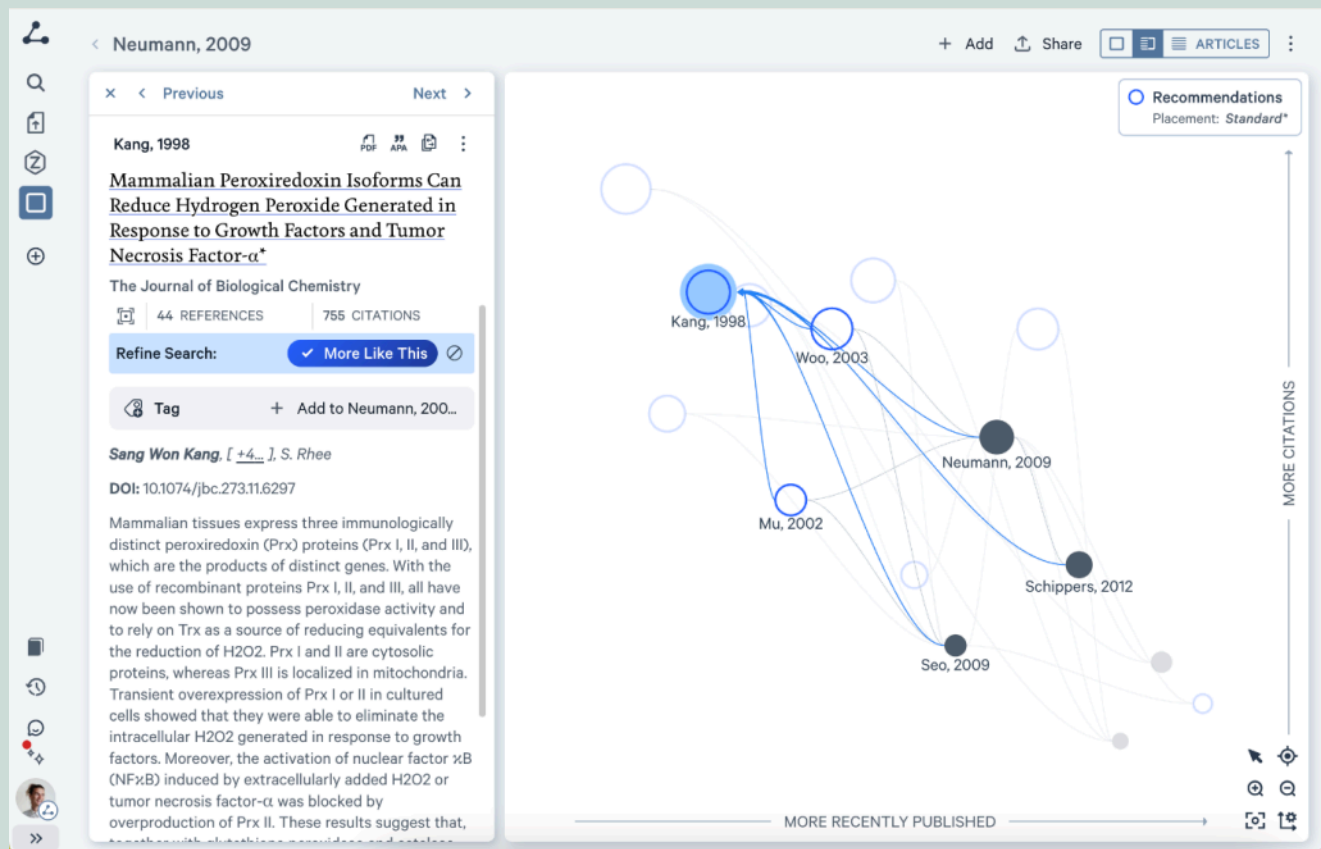
As your research collection grows, a powerful technique is to cross-reference the reference lists of multiple works to find common ancestors. This kind of investigation is known as “citation network analysis” and is generally quite complicated to conduct manually. Luckily, new software has emerged to help search across the citation network of your area of interest. These tools also provide useful visualisations to help understand the citations between works at a glance.

- [Litmaps](#) allows you to explore references and citations using visual “literature maps”. Litmaps supports the cross-referencing of citations, authors, and semantic text content. Its search methods also include advanced options to let you filter citations by keyword, date range, authors, and publication details.
- [Connected Papers](#) is a simple tool that creates visual summaries of a single work’s top citations and references.
- [Inciteful](#) provides various citation network analysis tools including citation cross-referencing, and a pathfinder to identify citation trails between any two articles.
- [ResearchRabbit](#) is a research collection tool that provides a useful interface for citation chasing, but has limited citation network analysis features.

It’s worth noting that some citation chasing software (Litmaps and ResearchRabbit, from above) have additional features that can also improve your research workflow. These can include document storage, ongoing search scanning, and linking with reference managers. It’s worth investigating the full breadth of features available to create a concise research workflow.

Example Litmaps search: **Social cohesion and housing policy in Aotearoa New Zealand**

Litmaps offers citation network cross-referencing. Here we can see its recommendations as blue circles, and the way they're cited by the input works, shown as dark circles.



Let's work through an example of citation chasing in Litmaps. Citation chasing always begins with a known article, or set of articles. For this example, we'll start with a single article, and use that as a starting point to gather relevant articles.

First we need to find a starting article. We'll use the Search page on Litmaps and type in a keyword phrase for our topic, "social cohesion + housing policy in Aotearoa New Zealand".

The screenshot shows the Litmaps search interface. At the top, the search bar contains the query "social cohesion housing policy in Aotearoa New Zealand". Below the search bar, there are filters for "Most Relevant", "Since 2025", "Since 2024", "Since 2021", and "Custom". The search results are displayed in a list format. The top result is by Olin, 2022, titled "Inclusive and collective urban home spaces: the future of housing in Aotearoa New Zealand", with 40 references and 8 citations. Below this, there are results by Barker, 2019; Henry, 2019; and Witten, 2003. On the right side, a detailed view of the top article is shown, including a button to "Explore Related Articles" and a list of authors: Crystal Victoria Olin, Erica Hinckson, and others. The sidebar on the left contains navigation options like "IMPORT", "SYNC", "LITMAPS", and "TAGS".

Litmaps search for topic, “social cohesion + housing policy in Aotearoa New Zealand”

The top article from Litmaps’ keyword search results seems useful, so we’ll start here. *Tip: alternatively we could have brought articles we already know about into Litmaps. We can either search by their title or DOI, or use the Import option in the sidebar to submit a BibTeX file from your reference manager.*

Clicking on the Explore Related Articles button allows us to generate a “Litmap” – a visual representation of articles and their citations and references. Here we can see the article we started with, “Olin, 2022”, coloured in black. Litmaps has scanned its citations and references, and is suggesting the hollow blue articles as the most relevant to your starting article:

The screenshot displays the Litmaps interface for a workspace named "Demo Workspace". The main view is titled "Explore Related Articles" for the article "Olin, 2022". On the left sidebar, there are sections for "LITMAPS" (showing "Olin, 2022" selected), "TAGS" (with "You have no Tags"), "Workspace Articles", "Recent", "Support", and "What's New". The central area shows a list of "Explore Related Articles" with three entries: "Livesey, 2017" (31 references, 7 citations), "Elnagar, 2025" (27 references, 0 citations), and "Shaw, 2018" (1-20 of 20). Each entry includes a "Tag" button and a "More Like This" button. On the right, a network graph visualizes the relationships between articles, with nodes representing authors and years (e.g., Glass, 2013; Markle, 2015; Olin, 2022; Warner, 2020; Douma, 2021; Ross, 2020; Opit, 2020; Shaw, 2018; Livesey, 2017; Zhao, 2020; Warner, 2022; Elnagar, 2025; Golden-Chapman, 2023). The graph includes a "Recommendations" panel and navigation arrows for "MORE CITATIONS" and "MORE RECENTLY PUBLISHED".

By clicking on the hollow blue articles, or by browsing the list in the sidebar, we can review these articles and assess whether they're relevant. Above, we've found an article on "Shared mobility in a Māori community". Since we expect this to have some relevance towards our research question, we can click the blue "More Like This" button. This will add the article to our Litmap, and extends the set of citations and references that Litmaps will search over. Here, we've clicked "More Like This" on several of Litmaps' suggestions. You can see these articles have also become coloured black on the Litmap – they're now added to the Litmap, and will stay here:

Litmaps < Olin, 2022 + Add Monitor [ARTICLES]

Search... IMPORT SYNC Demo Workspace

Explore Related Articles Filter Date, Keyword, Journal, and more... How are these results calculated? Advanced

Article 1: Livesey, 2017
 'Returning resources alone is not enough': imagining urban planning after Treaty settlements in Aotearoa New Zealand
 31 REFERENCES | 7 CITATIONS
 Tag + Add to Litmap
 Refine Search: More Like This

Article 2: Elnagar, 2025
 Modeling a Sustainable Decision Support System for Banking Environments Using Rough Sets: A Case Study of the Egyptian Arab Land Bank
 International Journal of Financial Studies
 27 REFERENCES | 0 CITATIONS
 Tag + Add to Litmap
 Refine Search: More Like This

Article 3: Shaw, 2018
 Health consequences of transport patterns in
 1 - 20 of 20

Network Graph: New results may be available. You've made changes to this Litmap. Refresh

Graph nodes: Glass, 2013; Glass, 2016; Markle, 2015; Opit, 2020; Ross, 2020; Douma, 2021; Shaw, 2018; Warner, 2020; Olin, 2022; Elnagar, 2025; Zhao, 2020; Warner, 2022; Olin, 2022; Elnagar, 2025

Workspace Articles: Recent Support What's New Digl Dixon Litmaps Pro

You'll also notice the yellow "New results may be available" banner. Clicking "Refresh" will ask Litmaps to scan the newly-combined references and citations of all of the articles that we've added using "More Like This".

Here is the new set of results. You can see how they're linked to several of the articles we added to our Litmap: they rank more highly because they're more interconnected with what we've said we're interested in.

Litmaps < Olin, 2022 + Add Monitor [ARTICLES]

Search... IMPORT SYNC Demo Workspace

Article Detail: Jones, 2020 Get PDFs [APA] [PDF]
 Cycling amongst Māori: Patterns, influences and opportunities
 New Zealand geographer
 38 REFERENCES | 17 CITATIONS
 Refine Search: More Like This
 Tag + Add to Litmap
 Rhys Jones +2... A. Woodward
 DOI: 10.1111/nzg.12280
 Investment in cycling infrastructure and promotion may be a potentially beneficial intervention for Māori. Previous research on Māori transport priorities has identified increasing active transport use, amongst tamariki (children) in particular, as a potentially important contribution to improving hauora Māori. Active transport projects are likely to be most valuable to Māori where they are designed in ways that enable Māori to maintain a cultural and spiritual connection to the urban physical environment.

Network Graph: Recommendations Placement: Standard*

Graph nodes: Raerino, 2013; Jones, 2020; Haerewa, 2018; Olin, 2022; Russell, 2024

Workspace Articles: Recent Support What's New Digl Dixon Litmaps Pro

On the Litmap you can visualise how each of the suggestions either cites or references your articles. Clicking or hovering over an article can provide a clearer view:

Here we can see that this paper ("Jones, 2020") is cited by Russel, 2024, and Olin, 2022. It in turn cites Haerewa, 2018, and Raerino, 2013.

Tip: We can deduce the direction of the citation by looking at the lines' arrowheads, or inferring it due to the Litmap's horizontal axis being publication date.

The screenshot displays the Litmaps interface for the article "Jones, 2020". The central panel shows the article title "Cycling amongst Māori: Patterns, influences and opportunities", the author "New Zealand geographer", and statistics: "38 REFERENCES" and "17 CITATIONS". The article abstract discusses investment in cycling infrastructure and its benefits for Māori. The visualization area on the right shows a network graph where nodes represent articles and lines represent citations or references. The horizontal axis represents publication date, with "MORE RECENTLY PUBLISHED" on the left and "MORE CITATIONS" on the right. Nodes include "Raerino, 2013", "Haerewa, 2018", "Jones, 2020", "Olin, 2022", and "Russell, 2024". Arrows indicate the direction of the relationships, showing that Jones (2020) is cited by Olin (2022) and Russell (2024), and Jones (2020) cites Haerewa (2018) and Raerino (2013).

Continuing with our Citation Chasing, we may notice that many of these results, while about Aotearoa, are not about housing policy. We can force Litmaps to search for housing policy articles by adding a keyword filter. Now when Litmaps searches the citations and references of our article, it will exclude potential results that don't include these keywords.:

The screenshot shows the Litmaps interface for a search on 'Olin, 2022'. On the left, there is a sidebar with a search bar, 'IMPORT' and 'SYNC' buttons, and a list of workspace items including 'LITMAPS' and 'TAGS'. The main area is titled 'Explore Related Articles' and features a 'Filter Date, Keyword, Journal, and more...' button. An 'Explore Settings' modal is open, showing filters for 'Published Between' (YYYY - YYYY), 'Title + Abstract Keywords' (housing policy), 'Authors', 'Journals', 'H-Index' (0 - 1500), and 'SJR Quartiles' (1, 2, 3, 4). Below the modal, a 'Refine Search' section shows 'More Like This' with a preview of an article by Raerino, 2013. On the right, a citation network graph shows nodes for various authors and years, including Walker, 2006; Raerino, 2013; Poom, 2021; Jones, 2020; Haerewa, 2018; Williams, 2009; Olin, 2022; Howden-Chapman, 2023; Dohig, 2024; Russell, 2024; and Chapman-Fawcett, 2019. The graph is oriented with 'MORE RECENTLY PUBLISHED' on the left and 'MORE CITATIONS' on the right.

Tip: You can see the other filters available to help refine your results. In particular, you might find the date range filter to be useful to limit your results to only those published recently.

Great! Now our results seem to be more focused on housing. After browsing these results, try adding keyword filters for your other topics, for example, "social cohesion".

This screenshot shows the Litmaps interface with the search term 'housing policy' applied. The 'Explore Settings' modal is no longer open. The 'Refine Search' section now shows 'More Like This' with a preview of an article by Aho, 2019: 'A principles framework for taking action on Māori/Indigenous Homelessness in Aotearoa/New Zealand'. Below this, two more article previews are visible: one by Leyden, 2011, 'Understanding the Pursuit of Happiness in Ten Major Cities', and one by Baker, 2020, 'New evidence on mental health and housing affordability in cities: A quantile regression approach'. The citation network graph on the right is updated, showing nodes for Davis, 1996; Mann, 2006; Leyden, 2011; Baker, 2020; Aho, 2019; Buckenberger, 2012; Haerewa, 2018; Howden-Chapman, 2023; Olin, 2022; Dohig, 2024; and Russell, 2024. The graph orientation remains the same as in the previous screenshot.

You can continue to grow your Litmaps by using the “More Like This” button to add articles to your Litmap.

The screenshot displays the Litmaps interface. On the left, there's a sidebar with a search bar, 'IMPORT' and 'SYNC' buttons, and a 'Demo Workspace' section. Below this, there are sections for 'LITMAPS' (showing 'Olin, 2022') and 'TAGS' (Community, Māori Perspectives, Social Housing). The main area is titled 'Explore Related Articles' and shows a search for 'social cohesion'. It lists three articles with their titles, journals, and citation counts. Each article has a 'Tag' button and a 'More Like This' button. On the right, a network graph shows nodes representing articles, connected by lines indicating citations. The nodes are color-coded by tags. The graph is titled 'Recommendations Placement: Ring*' and has a 'MORE CITATIONS' label on the right and 'MORE RECENTLY PUBLISHED' at the bottom.

Here we can see our Litmap has continued to grow. We've even used Litmaps' "tagging" feature to colour the nodes based on subtopics that are starting to emerge. These coloured tags make it easy to see how prospective results are connected with your findings. You can even use tags to generate whole new Litmaps, which will help focus your Citation Chasing results towards specific topics.

Software limitations

As with keyword searching databases, you should be aware that citation chasing software will only index a subset of the published literature. Additionally, the citation information associated with texts may have inaccuracies, such as missing or incorrect parts of a citation. These inaccuracies are often topic-specific, so make sure to check your findings against other databases: any large discrepancies in citation lists will reduce the software's reliability.

Software in systematic research

Citation chasing software is an emerging technology and may not be accepted as a formal research process at your institution. For example, this means that you may not be allowed to include citation chasing software as part of your systematic literature review.

However, in this case you could still use citation chasing software to reverse-engineer your systematic review methods. If you find a text through citation chasing that wasn't found from your systematic keyword search terms, you should update your keywords to ensure the new text is captured. You may even find more relevant work as you update your keywords this way!

In disciplines such as Health, a protocol may be used which will govern this. The Prisma 2020 protocol is often used in Health and while it doesn't forbid the use of citation searching and citation-chasing software as the

primary search method, it emphasises that these methods should be used as supplementary to traditional database searches to ensure a comprehensive and unbiased (Rethlefsen et al., 2021).

SO WHAT CAN I USE AN AI TOOL FOR?

- Brainstorming ideas
- Checking or challenging your work
- Things you have mastered and don't need to improve

The University of New South Wales has the very useful resource *Tips for Using AI* which answers the question: [Are there any legitimate or ethical uses of AI in study and if so what are they and how?](#)

KEEPING UP WITH AI TOOLS FOR SEARCHING

I recommend subscribing to these sources:

- [Aaron Tay's Musings about librarianship](#)
- [One Useful Thing \(Ethan Mollick\)](#)
- [Slow AI \(Dr Sam Illingworth\)](#)

These websites are useful to find more AI tools or keep up to date with new tools:

- [Future Tools](#)
- [Ithaka S + R's AI product tracker](#)

[BrowseComp](#), is the most well-known benchmark for agentic web search.

You can also subscribe to various websites that release news on the developments of AI tools and AI news. For instance, you can access [AI related articles](#) from [The Conversation](#) , [Open AI News](#), or the free newsletter in [Future Tools](#) and the AI Innovations link in [Futurepedia](#).

Plan your search

Plan your search

These activities will help you plan your research as it provides a space for you to:

- Describe your research interests/topic and record your existing knowledge of subject
- Brainstorm all key words/terms as stated in your topic description
- List synonyms, related terms, alternate spelling, language, and so on
- Think about and record who might have created records for your topic
- Consider and note any limits

You will be able to export your answers as a document after completing it.

Examples are provided to help.

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Describe your research interests/topic and record your existing knowledge of subject

Ask yourself and record how much you know about this topic already. Think about what you've learnt from previous subjects, journal articles, media, personal experience, friends, family members or others.

2
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Brainstorm all key words/terms as stated in your topic description

For example "climate change" and media

3
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Brainstorm all key words/terms as stated in your topic description

Use AND between these different concepts.

4
/

List synonyms, related terms, alternate spelling, language, and so on

"climate change" or greenhouse effect or "climate variability" AND (media OR press OR news)

I know I might need to use search terms now considered outdated and I found these resources which may help me identify keywords to use:

- [UNESCO](#)
- [Thesaurus](#)

5
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List synonyms, related terms, alternate spelling, language, and so on

Use OR between these synonyms and other related terms and group these terms together in brackets.

6
/

Consider any limits

The time period I was thinking of studying is relatively recent meaning there is likely to a mix of sources that are relevant. This could include newspapers, websites along with some journal articles. This will help define the scope of the research possible.

I will need to consider bias, any discrimination and sensitivity of the content I find as this may contribute to what has been collected and made available. Depending on the source, it is important to factor in time to physically visit places that hold this information.

While looking through content, I need to keep in mind whether I can or should share images or other items I come across or not due to copyright restrictions or the potential to cause harm. This may influence the final decision of what format provides the best option to respect these aspects.

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Consider any limits

Think about and record the time frame, geographic region, demographics, and any other factors that will help you refine the scope of your research. Ask what records are available online? What records are not available online? Can you find any information about why material is or is not available online (copyright, privacy, cultural sensitivity, project funding or sponsorship etc)?

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The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=38#h5p-6>

Create your search strategy

Create your search strategy

Starting your search strategy

Key terms and phrases

Phrase searching

Truncation and wildcards

Combining terms

Proximity operators

Combining searches

Starting your search strategy

Before you begin searching consider the following:

What is it that you wish to find (journal articles, commentary, law reform material)?

Which resources will you need to search (databases, library catalogues, Library Guides)?

Are there applicable search parameters (time period or jurisdiction)?

What search terms will you need to use (keywords, phrases, and synonyms)?

Create your search strategy

Starting your search strategy

Key terms and phrases

Phrase searching

Truncation and wildcards

Combining terms

Proximity operators

Combining searches

Key terms and phrases

Consider the terms and phrases that will help you find relevant information, including related words, subject terms, synonyms, and phrases.

List keywords and/or phrases:

Are there any related terms and synonyms on your topic or question?

List related terms and synonyms:

Are there any relevant subject terms related to your topic or question?

List any relevant subject terms:

Create your search strategy

Starting your search strategy

Key terms and phrases

Phrase searching

Truncation and wildcards

Combining terms

Proximity operators

Combining searches

Phrase searching

Would phrase searching be useful for your search?

List any phrases:

Create your search strategy

Starting your search strategy

Key terms and phrases

Phrase searching

Truncation and wildcards

Combining terms

Proximity operators

Combining searches

Truncation and wildcards

Make use of truncation and wildcards where appropriate.

List any terms where truncation or wildcards could be used:

Create your search strategy

Starting your search strategy

Key terms and phrases

Phrase searching

Truncation and wildcards

Combining terms

Proximity operators

Combining searches

Combining terms

Use boolean operators - AND, OR, NOT - to combine your terms and phrases.

AND combinations

OR combinations

NOT combinations

Create your search strategy

Starting your search strategy

Key terms and phrases

Phrase searching

Truncation and wildcards

Combining terms

Proximity operators

Combining searches

Proximity operators

Would proximity operators be helpful to your search?

List how you could use proximity operators:

Create your search strategy

Starting your search strategy

Key terms and phrases

Phrase searching

Truncation and wildcards

Combining terms

Proximity operators

Combining searches

Combining searches

How would you combine the various parts of your search?

Include your final search statement or string:



The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=38#h5p-1>

What is the purpose of using a **Boolean operator** like "AND" in a search query?

- To find at least one of the connected terms.
- To broaden the search to find more results.
- To exclude a term from the search results.
- To narrow the search by requiring both terms to be present.

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The "traditional" way of searching for academic literature at the postgraduate level is described as an **iterative art**, not a scientific process. What does this mean?

- It involves a process of trial and error, reviewing, and revising your search strategy based on your results.
- It's a structured process that follows a rigid, step-by-step procedure
- It means you should only use one or two search terms
- It relies on artistic intuition to find the best sources

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What does **truncation** (using an asterisk *) allow you to do in a database search?

- Exclude irrelevant results.
- Limit the search to a specific field.
- Search for an exact phrase.
- Shorten the search term to find all word variations (e.g., *cohes** to find cohesion, cohesive, cohesiveness).

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A **comprehensive search** at a postgraduate level differs from undergraduate searching because it must be:

- Done using only one database
- Quicker
- More detailed and systematic
- Less focused on keywords

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The interactive version of this H5P content is available at:
<https://oercollective.caul.edu.au/research-skills-post-grad/?p=38#h5p-13>

Further reading

- QUT Library. (2024, December 1). *Keeping useful notes*. AIRS: Advanced Information Research Skills. <https://airs.library.qut.edu.au/topics/7/4/>
- QUT Library. (2024, December 1). *Coding the literature*. AIRS: Advanced Information Research Skills. <https://airs.library.qut.edu.au/topics/7/3/>
- Digital Essentials—Library—University of Queensland*. (2024, October 18). <https://web.library.uq.edu.au/research-tools-techniques/digital-essentials>

References in this chapter

- Bennett, B. (2022). How to write a policy brief. In J. L. MacArthur & M. Bargh, *Environmental politics and policy in Aotearoa New Zealand* (pp. 116–118). Auckland University Press.
- Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., & Koffel, J. B. (2021). PRISMA-S: An extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews. *Systematic Reviews*, 10(1), 39. <https://doi.org/10.1186/s13643-020-01542-z>
- Tolich, M., & Davidson, C. (2018). *Social science research in New Zealand: An introduction*. Auckland University Press.
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CHAPTER 4

Evaluating your information sources

CATHERINE DOUGHTY

WHY EVALUATE YOUR INFORMATION SOURCES?

A vital step in the research process is to evaluate the information sources you gather. As a postgraduate student, you may have developed a level of skill in source evaluation. However the information landscape is forever changing and there are important criteria to revisit and consider. Evaluating your information sources using an evaluation framework will prompt your critical thinking. Over time, you will automatically apply the evaluation criteria as to enhance your research process.

By the end of this section you will have learned to use Te Whatu Aho Rau information evaluation framework (Feekery & Tahwai, 2024) to be confident when selecting your information sources.

TE WHATU AHO RAU INFORMATION EVALUATION FRAMEWORK

At the core of Te Whatu Aho Rau information evaluation framework is the principle of it being an interconnected evaluation process. Two interpretations may be given to the name of the framework to demonstrate this core principle:

1. *The Weaving of 100 Threads* is the first interpretation and it refers to the weaving of facts, ideas and intuitions that form the basis of knowledge. The second interpretation;
2. *The Eye Catching 100 Lights*, emphasises the overload of information that we face, that needs to be filtered and evaluated before we can trust and act upon that information. We must identify a big picture context for the information source within the discipline and its relation to the work we are engaging with.

Mana is also a deeply held value within all aspects of the framework. When you engage with knowledge via the framework, it links you with the mana of the authors and creators of the knowledge. The framework suggests you engage with information using a more holistic perspective than the traditionally Western linear, tick-box approach. Evaluate your information sources using the guidance offered from the four pou (concepts) in the framework: Pūtaketanga, Aronga, Tātai Hononga and Māramatanga. The pou interrelate and not all will be met to the same degree with each source you gather. This is why it is important to consider which of these concepts are important to your information need. When you engage authentically in using this holistic interconnected framework for critical information evaluation and selection, you will gain an awareness of the mana of the knowledge you are engaging with, as will be revealed your ethical practise of accessing, understanding and applying knowledge.

[Te Whatu Aho Rau information evaluation framework \[PDF\]](#)

Te Whatu Aho Rau – A podcast about the information evaluation framework from Chapter 4 Evaluating your information sources (7'10")

Listen to Catherine Doughty and Philip Worthington discuss the framework



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

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#audio-41-1>

Use the guiding questions within the interactive learning tool below to assist you in evaluating your sources.

TE WHATU AHO RAU INFORMATION EVALUATION FRAMEWORK



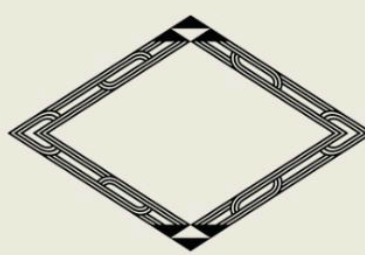
2
Pūtahi Kōwhiri
Origin



1
Aho Kōwhiri
Lens, Perspective, Purpose



3
Tātai Kōwhiri
Connections



4
Māra Kōwhiri
Understanding



Adapted by Feekery & Tawhai, 2024.



1 Aronga (lens, perspective, purpose)

Aronga recognises the focus and purpose of the information, and the differing perspectives and positionality of the information creator and consumer. It considers subjectivity when creating and engaging with information– self-critical analysis is essential.

- Why was the information created?
- Why has the information been created the way it has?
- Are the intentions/purpose of the information creator clear?
- What are the potential perspectives/ bias in the information?
- Has the information creator acknowledged any weaknesses or stated their assumptions?
- Is the information presented controversial?
- Has the information user recognised the influence of their subjectivity when engaging with the information?

2 Pūtaketanga (origin)

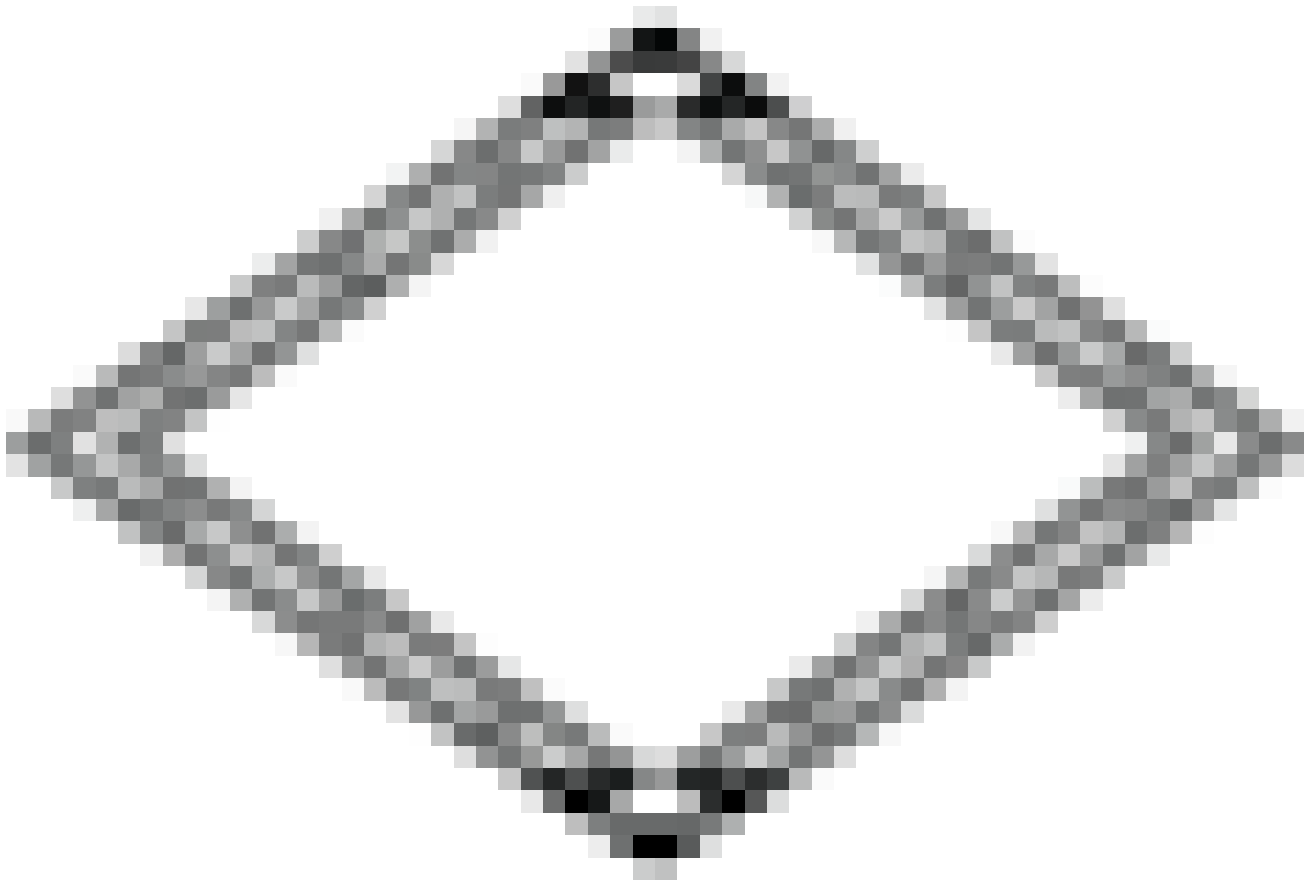


Pūtaketanga encourages us to trace the information source's whakapapa, and its emerging iterations, to understand the link between when the ideas originated and how they fit together now. It connects to the contextual origin, the information creator's expertise, and the intent and authority of the information.

- What is the whakapapa of these thoughts and ideas?
- Who created the information?
- When was the information created?
- Where was the information created?
- Who was it created for?
- Where was it published or shared?

3

Tātai hononga (connections)



Tātai hononga captures the conversations taking place to share ideas and opinions, and highlights the connectedness between ideas, industries, academic disciplines, and communities. It considers the unique contribution each information source makes to your understanding of the topic or issue.

- How does this conversation connect to the broader conversation?
- Are we creating a connection where there is no connection?
- If the research is about people, what do the people being talked about say?
- How can those whose voices are minimalised be heard or emphasised within the broader dominant conversations?
- How does this information affect us in the spaces we find ourselves engaging in conversations?
- Has the academic information been peer reviewed?
- Does the information link you to other quality information?

4

Māramatanga (understanding)



Māramatanga connects to the power of using ideas and understanding how they emerge, grow, and develop. It indicates 'enlightenment': the information should positively impact and add value to the wider community of understanding and add value to the existing conversations. It connects to the content and usability of the information for your purpose, audience, and context.

- Do the ideas captured within the source add value to the context/discipline/profession?
- Is this source still relevant for the topic?
- Does this information help you understand your topic?
- Is the information accurate, easy to navigate and understand?
- Do you feel this information adds meaning and insight to your topic/ research?
- Does the information provide a good match with your existing and expanding knowledge?
- Where does further discussion take us?



The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#h5p-4>

AI AND SOURCE EVALUATION

Although generative AI tools produce some opportunities to assist with learning, their efforts also complicate the information landscape, generating much information without any trace of its origin. Unless you can identify the Pūtaketanga, (the origins) of a source, the Te Whatu Aho Rau information evaluation framework does not endorse AI-generated information.

Currently, information generated from generative AI tools must be viewed as unreliable and untrustworthy as supporting evidence for your research (Feekery, Condon and Witsel, 2025, p. 236). AI is *not* an information source. Treat anything you read from generative AI tools as a spring board for your thoughts and searching, “rather than any final source of truth” (Southern Cross University Library, 2025).

LEARNING SCENARIOS

Explore the scenarios below, on how you, as a postgraduate student might apply the interconnected Te Whatu Aho Rau information evaluation framework to your evaluation and selection of sources for your research. Note these examples are a limited selection of sources, to support two separate research topics from different disciplines. [Learning scenarios in full \[PDF\]](#)

Scenario 1. Research Question: What is the interface between housing policy instruments and social cohesion in Aotearoa?

Source 1. Journal Article: Rangiwhehu, L., Pierse, N., Chisholm, E., & Howden-Chapman, P. (2020). Public housing and well-being: Evaluation frameworks to influence policy. *Health Education & Behavior*, 47(6), 825-835.
<https://doi.org/10.1177/1090198120917095>

PŪTAKETANGA (ORIGIN)

What is the whakapapa of the thoughts and ideas? Rangiwhehu et al. build upon a history of public housing in New Zealand, acknowledging its evolution from a vital part of national infrastructure to a more contested welfare model. The article notes the impact of governmental changes and policy shifts, such as the previous centre-right government's aim to sell a third of public housing. The article's origin lies in its historical context that emphasises a recognised need for a robust evidence base to inform housing policies in New Zealand, where public housing has experienced fluctuating levels of investment and varying political perspectives.

Who created the information? The article establishes its pūtaketanga by its whakapapa to four authors, PhDs at Otago University. The lead author has little publishing history, suggesting she is a new researcher or PhD candidate presenting her research. However, she is accompanied by distinguished educator with mana in public health, Professor Howden-Chapman, who has a long publication list relating to urban planning. This factor enhances the article's pūtaketanga.

When and where was the information created? The article, published in 2020, is grounded in the New Zealand context. This reflects the specific challenges and opportunities in Aotearoa concerning public housing and well-being four years ago. Recent contextual changes will need to be considered through comparing it to recent literature.

Who was it created for? The research targets policymakers, public health professionals, and housing organisations, aiming to provide frameworks to evaluate the impact of housing regeneration on tenant well-being. This focus aligns with the goal of informing policies that enhance social cohesion.

ARONGA (LENS, PERSPECTIVE, PURPOSE)

Why was the information created? The aronga is clear. The primary aim was to develop evaluation frameworks that assess the impact of public housing remediation and regeneration on tenant well-being at the apartment, complex, and community levels. This purpose directly addresses the interface between housing policy instruments and social cohesion by providing tools to measure the effectiveness of interventions.

Why has the information been written or created the way it has? Utilising a mixed-methods, quasi-experimental design, the article seeks to provide a comprehensive understanding of the impacts of housing policies. This approach allows for the integration of quantitative data, such as temperature monitoring and energy use, with qualitative insights from tenant surveys.

What is the potential bias in the information? The authors acknowledge potential biases, such as Howden-Chapman's role with Kāinga Ora, and the prevalent Euro or US-centric views in published research.

Is the information presented controversial? The article addresses the controversial nature of public housing in New Zealand and the differing views on welfare and housing affordability. The article also refers to the "Social Housing Reform Programme" that aimed to sell off a third of the central government's housing stock.

TĀTAI HONONGA (CONNECTIONS)

How does this conversation connect to the broader conversation? The article contributes to the broader discourse on public housing, well-being, and urban regeneration. By referencing international projects such as HOPE VI and the Scottish Housing Health and Regeneration Project (SHARP), the research situates its findings within a global context of housing policy and evaluation, to establish tātai hononga.

How can those whose voices are minimalised or silenced be heard or emphasised within the broader dominant conversations? The article emphasises the importance of centering the voices and well-being of tenants within public housing initiatives. This is particularly relevant in the context of regeneration projects, where the potential for displacement and disruption of social networks needs careful consideration.

How does this information affect us in the spaces we find ourselves engaging in conversations? The research informs discussions on housing policy, urban planning, and community development by providing evidence-based recommendations. The findings can be used to advocate for policies that prioritise tenant well-being and promote social cohesion.

Peer review and links to quality information. The article gains credibility due to its status as a peer-reviewed research article that links with over 50 quality supporting information sources. The journal's international editorial board facilitates further connections of mana, with reviewers who are subject experts. This also encourages connections and knowledge sharing with international audiences.

MĀRAMATANGA (UNDERSTANDING)

Do the ideas captured within the source add value to the context/discipline/profession? The article steps back from the "politically contentious" issue of the provision of public housing to develop ways to evaluate the impact more objectively and foster māramatanga for those in the field, by giving tools, (frameworks) to evaluate and compare the effects of housing policies and inform policy decisions. The research highlights the importance of addressing housing-related health issues, such as respiratory and cardiovascular diseases linked to cold and damp housing.

Is this source still relevant for the topic? Given the ongoing housing crisis and the need for evidence-based policies, the article remains relevant. However, it does not consider recent contextual changes emerging from Covid-10, change of government and recent Kāinga Ora change issues.

Does this information help you understand your topic? The article provides a clear and detailed account of the research process, findings, and implications.

Is the information accurate and easy to navigate? The article is well-organised and uses plain language.

Do you feel this information adds meaning and insight to your topic/research? The article offers valuable insights into the complexities of public housing and the importance of considering tenant well-being.

Does the information provide a good match with your existing and expanding knowledge? The article reinforces the importance of evidence-based policy and the need for ongoing evaluation and adaptation.

CONCLUSION

Having reviewed the journal article using Te Whatu Aho Rau information evaluation framework, there is strong evidence that this article is suitable to support and inform your investigation into your research topic. The criteria of each component of the evaluation framework has been fully met. The Rangiwhehu et al. article is a quality information source that fulfils the information need for this topic and will bring mana to this study.



The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#h5p-7>

Source 2. Journal Article: Russell, E., McKerchar, C., Thompson, L., & Berghan, J. (2023). Māori experiences of social housing in Ōtautahi Christchurch. *Kotuitui: New Zealand Journal of Social Sciences Online*, 18(4), 352-369. <https://doi.org/10.1080/1177083X.2023.2180762>

PŪTAKETANGA (ORIGIN)

What are the whakapapa of the thoughts and ideas? The article's whakapapa lies in addressing the social housing needs of Māori in Aotearoa, which have been shaped by historical policies and practices. It connects the origin of these policies to their present-day impact on social cohesion within Māori communities and the broader New Zealand society.

Who created the information? The authors, affiliated with the University of Otago, have extensive publication history in the discipline and bring expertise in population health and surveying. This is relevant when considering the social and spatial dimensions of housing policy and its effects on communities. At least one author identifies as Māori, with an understanding of the Māori worldview. This lends mana significantly to each of the pou of the framework.

When and where was the information created? Published in March 2023, the article provides a relatively current perspective on the issue, reflecting the ongoing demand for social housing and the need for culturally appropriate solutions. The localised context of Ōtautahi Christchurch is important, as the experiences of Māori social housing tenants in this specific location offer insights into the broader national context, while also acknowledging regional variations.

Who was it created for? The research is intended for policymakers, housing providers, and community organizations involved in social housing in New Zealand.

ARONGA (LENS, PERSPECTIVE, PURPOSE)

Why was the information created? The article highlights the overrepresentation of Māori in housing need and the limited research on their experiences in social housing. It seeks to understand how housing policy instruments can better support social cohesion by addressing the specific needs and aspirations of Māori tenants.

Why has the information been written or created the way it has? The use of a Kaupapa Māori research framework reflects a commitment to centering Māori voices and perspectives. The aronga in this project, reflected by the research framework, has an indigenous, strengths-based perspective. The authors clearly aim to provide insights into how social housing can foster a sense of community, belonging, and cultural identity among Māori tenants. This aligns with the broader goal of promoting social cohesion in Aotearoa.

What is the potential bias in the information? The authors advocate for incorporating a Te Ao Māori worldview into social housing provision, which may reflect a particular value orientation. However, the research also presents the lived experiences of Māori tenants, providing a balanced perspective. The study acknowledges its limitations, such as the small sample size and localized context. This transparency enhances the credibility, mana, of the findings.

Is the information presented controversial? The article touches on sensitive issues related to historical injustices, cultural assimilation, and social inequality. However, it approaches these issues from a research perspective, aiming to inform open, inclusive discussions and policy development.

TĀTAI HONONGA (CONNECTIONS)

How does this conversation connect to the broader conversation? The research connects to broader discussions on social determinants of health, housing policy, Māori wellbeing, and decolonizing research methodologies. It references key models such as Māori health model, Te Whare Tapa Whā.

Are we creating a connection where is there no connection? The study connects the experiences of Māori tenants to broader issues of social justice, cultural identity, and community development.

If the research is about people, what do the people being talked about say? The research centers the voices of Māori tenants through semi-structured interviews, exploring their concept of 'home' and 'belonging', allowing them to share their experiences and perspectives on social housing.

How can those whose voices are minimalised or silenced be heard or emphasised within the broader dominant conversations? By using a Kaupapa Māori research framework, the study amplifies the voices of Māori tenants and challenges dominant Western perspectives on housing and social welfare.

How does this information affect us in the spaces we find ourselves engaging in conversations? The findings can inform conversations among policymakers, housing providers, community organizations, and researchers, potentially leading to changes in social housing policy and practice.

Peer review and links to quality information? Yes, the article's publication is a peer-reviewed journal that suggests the research has undergone scrutiny by experts in the field, connecting to credibility, mana. There is a comprehensive list of references, connecting readers to relevant research and policy documents.

MĀRAMATANGA (UNDERSTANDING)

Do the ideas captured within the source add value to the context/discipline/profession? The research contributes to a deeper understanding of the lived experiences of Māori social housing tenants, providing valuable insights for policymakers, housing providers, and community organizations.

Does this information help you understand your topic? The article provides a comprehensive overview of the challenges and opportunities related to social housing for Māori in New Zealand. It highlights the importance of cultural appropriateness, community connection, and tenant empowerment.

Is the information accurate and easy to navigate? The article is well-organised and clearly written, making it accessible to a wide audience. It uses quotes from participants to illustrate key findings.

Do you feel this information adds meaning and insight to your topic/ research? The research provides a nuanced understanding of the complexities of social housing for Māori, challenging simplistic assumptions and highlighting the importance of culturally responsive approaches.

Does the information provide a good match with your existing and expanding knowledge? The article builds upon existing knowledge of social determinants of health, housing policy, and Māori wellbeing, providing new insights and perspectives.

Where does further discussion take us? The research suggests several avenues for further investigation, including exploring the long-term impacts of culturally responsive housing interventions and examining the role of iwi and community organisations in social housing provision.

CONCLUSION

This is another strong article that is suitable for the research assignment. Its strength is evident by meeting the evaluation framework criteria. It is more recent than the initial article and offers a different and enlightening dimension, that of connecting to an indigenous voice of those most affected by social housing policy, crucial to any discussion on social cohesion in Aotearoa.



The interactive version of this H5P content is available at:

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Scenario 2. Research Question: What are the legal limits of the New Zealand Government's emergency powers?

Source 1. Legislation: Health Act 1956 s.70(1).

PŪTAKETANGA (ORIGIN)***What is the whakapapa of the thoughts and ideas?******Who created the information?******When and where was the information created?******Who was it created for?***

With legal studies, it is important to identify the legal instrument that the study is referring to. Legislation and sections of legislation are 'primary legal sources', which hold much mana as they whakapapa to the MPs in parliament. The timing of legislation is also an important consideration. Although originating almost 70 years ago when the Health Act was created, this section of the Act was current law during the period of the 2020 pandemic. Depending on the period studied, and the current status of the section of an Act, an Act of Parliament is an authoritative source that fully meets the criteria of pūtaketanga.

ARONGA (LENS, PERSPECTIVE, PURPOSE)***Why was the information created?******Why has the information been written or created the way it has?******What is the potential bias in the information?******Is the information presented controversial?***

The aronga is evident in the section 70(1) of the Act. In this instance the māramatanga and the aronga are closely related. With both united they are ensuring a strength of argument and understanding.

TĀTAI HONONGA (CONNECTIONS)***How does this conversation connect to the broader conversation?******How can those whose voices are minimalised or silenced be heard or emphasised within the broader dominant conversations?******How does this information affect us in the spaces we find ourselves engaging in conversations?******Peer review and links to quality information.***

Analysing the section of law provides evidence of Tātai Hononga. Connections with this section of the Health Act may be compared with the actions of previous governments during past emergency responses. Further critical connections are made to those law cases that have argued the section in court, in challenging the actions of the government during the recent pandemic in this country.

MĀRAMATANGA (UNDERSTANDING)***Do the ideas captured within the source add value to the context/discipline/profession?******Is this source still relevant for the topic?******Does this information help you understand your topic?******Is the information accurate and easy to navigate?******Do you feel this information adds meaning and insight to your topic/research?******Does the information provide a good match with your existing and expanding knowledge?***

Section 70(1), of the Health Act 1956, is vital, as it is the part of the law that provided for the creation of emergency law to enact the Covid-19 restrictions. Selecting it is the main point of reference of the study and exemplifies māramatanga, providing understanding with direct relevance to the topic.

CONCLUSION

Including this piece of legislation will add mana to and strengthen the legal-themed study.





The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#h5p-9>

Source 2. Legal Judgment: Borrowdale v Director-General of Health [2020] NZHC 2090, [2020] 2 NZLR 864.

PŪTAKETANGA (ORIGIN)

What is the whakapapa of the thoughts and ideas?

Who created the information?

When and where was the information created?

Who was it created for?

A legal judgment has whakapapa with a law court of New Zealand. This judgment was made by a judge of the High Court, who has much mana and authority in interpreting the law. As this remains a leading case it also holds authority, mana, in itself. Unless overturned, legal judgments or law reports innately hold pūtaketanga. Additionally, by referring to the law report as well as the official neutral judgment, the student is recognising the mana of this source.

ARONGA (LENS, PERSPECTIVE, PURPOSE)

Why was the information created?

Why has the information been written or created the way it has?

What is the potential bias in the information?

Is the information presented controversial?

Aronga and Māramatanga are closely related in this instance. This leading case offers evidence for the narrative of the topic, or at least a part of the topic, showing its legal purpose, aronga, and supporting greater understanding, māramatanga for the topic.

TĀTAI HONONGA (CONNECTIONS)

Do the ideas captured within the source add value to the context/discipline/profession?

Is this source still relevant for the topic?

Does this information help you understand your topic?

Is the information accurate and easy to navigate?

Do you feel this information adds meaning and insight to your topic/research?

Does the information provide a good match with your existing and expanding knowledge?

Tātai hononga is evident in that the lawyers argued section 79(1) of the Health Act 1956 in this case, showing direct links to this legislation as well as to other prior cases and legislation.

MĀRAMATANGA (UNDERSTANDING)

Do the ideas captured within the source add value to the context/discipline/profession?

Is this source still relevant for the topic?

Does this information help you understand your topic?

Is the information accurate and easy to navigate?

Do you feel this information adds meaning and insight to your topic/research?

Does the information provide a good match with your existing and expanding knowledge?

Aronga and Māramatanga are closely related in this instance. This leading case offers evidence for the narrative of the topic, or at least a part of the topic, showing its legal purpose, aronga, and supporting greater understanding, māramatanga for the topic.

CONCLUSION

The inclusion of a primary legal source, a law report will provide much credibility to this study. Using this law report will provide evidence of how the law has been applied. This will strengthen the discussion in the study.





The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#h5p-10>

Source 3. Report: Te Tira Ārai Urutā the New Zealand Royal Commission of Inquiry into COVID-19. (2024). Whītiki Aotearoa: Lessons from COVID-19 to prepare Aotearoa New Zealand for a future pandemic: Main report: Phase one. <https://www.covid19lessons.royalcommission.nz/reports-lessons-learned/main-report/>

PŪTAKETANGA (ORIGIN)***What is the whakapapa of the thoughts and ideas?******Who created the information?******When and where was the information created?******Who was it created for?***

Although the content in this document is not entirely focused on legal themes, there is sufficient legal focus to pursue this source for the purpose of the scenario topic. The whakapapa, origin of the source, lies with the New Zealand government who instigated the Royal Commission inquiry which was led by an epidemiologist, an economist and a litigation specialist. The latter contributor and the legal content provides significance to the work for the legal audience and future policy makers in particular.

ARONGA (LENS, PERSPECTIVE, PURPOSE)***Why was the information created?******Why has the information been written or created the way it has?******What is the potential bias in the information?******Is the information presented controversial?***

The aronga challenges the whakapapa and the focus of this report. Consideration must be given here to the possibility that this source, although presenting a high standard in its information, may reflect an institutional government bias. The views of anti-lockdown and anti-vaccination protesters on government grounds, for example, might not be included in this resource.

TĀTAI HONONGA (CONNECTIONS)***How does this conversation connect to the broader conversation?******How can those whose voices are minimalised or silenced be heard or emphasised within the broader dominant conversations?******How does this information affect us in the spaces we find ourselves engaging in conversations?******Peer review and links to quality information.***

As mentioned previously, this source is not solely focused on legal matters. It displays tātai hononga as it connects the legal instruments to the broader social and practical issues of a pandemic preparedness conversation.

MĀRAMATANGA (UNDERSTANDING)***Do the ideas captured within the source add value to the context/discipline/profession?******Is this source still relevant for the topic?******Does this information help you understand your topic?******Is the information accurate and easy to navigate?******Do you feel this information adds meaning and insight to your topic/research?******Does the information provide a good match with your existing and expanding knowledge?***

Māramatanga is shown by content that provides relevant retrospective comment and facts on the legislation that the government enacted during the Covid-19 pandemic, among other topics. It is also evident in the advice offered towards future pandemic preparedness, including for treatment of legal, ethics and human rights frameworks, which adds value to this body of legal knowledge.

CONCLUSION

It is important to keep a holistic approach to the evaluation framework and retain perspective on the purpose of the research question, which requires a legal focus. As mentioned, there are other related perspectives also included in this information source. If necessary, additional sources to supplement this evidence and balance perspectives may be recommended.



The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#h5p-12>

Source 4. Journal Article: Geiringer, C., & Geddis, A. (2020). Judicial deference and emergency power: A perspective on *Borrowdale v Director-General*. *Public Law Review*, 31(4), 376-383. <http://dx.doi.org/10.2139/ssrn.3693450>

PŪTAKETANGA (ORIGIN)

Authors Geiringer and Geddis are constitutional law experts and university law professors. Their authorship provides mana to the whakapapa of this secondary legal source. The article was published within a peer-reviewed scholarly law journal the same year as the *Borrowdale v Director-General of Health* [2020] NZHC judgment was released. It provided its intended Australasian legal and academic audience with context and commentary on the judgment within a timely fashion. The article retains pūtaketanga.

ARONGA (LENS, PERSPECTIVE, PURPOSE)

The aronga is identified by writing with a legal lens steeped in constitutional law. The challenge for any student is to question their own perspective, lens or bias when selecting sources.

TĀTAI HONONGA (CONNECTIONS)

Willis connected the case with the significant legislation, as other previous sources have done, showing tātai hononga. The framework encourages gathering multiple sources to support a point to provide greater validity.

MĀRAMATANGA (UNDERSTANDING)

When reading to gain an understanding of the case and the impact it had, the content of the article continues to enlighten (holds māramatanga) and may inform part of our student's research. The framework encourages gathering multiple sources to support a point to provide greater.

CONCLUSION

These four sources address New Zealand's response to the COVID-19 pandemic, examining both its legality and its practical implementation and impact. They provide balance and strength to support your discussion of legal limits of the New Zealand government's emergency powers. One source, an article by Geiringer and Geddis, scrutinizes the judicial handling of emergency powers during the pandemic, particularly concerning the balance between government authority and individual rights, as seen in the *Borrowdale v Director-General* case. The report titled "Royal Commission COVID-19 Lessons Learned-Main Report Phase 1", offers a broader review of the country's strategy, including lockdowns, border controls, the health system response, the vaccine rollout, and the social and economic consequences, while also providing recommendations for future preparedness. Another source, a section of legislation, is the basis of which the student's discussion will be built upon and is crucial when addressing the topic from a legal perspective.



The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#h5p-11>

Review Quiz

The text advises that you should treat information from generative AI tools as:

- A final source of truth for your research.
- A primary source that must be cited.
- An ethical and reliable alternative to traditional research.
- A springboard for your thoughts and searching, not a final source of truth.
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Which of the following is an accurate interpretation of Te Whatu Aho Rau framework's name, as described in the text?

- The Thread of Knowledge, which signifies a single, linear path to understanding.
- The Eye Catching 100 Lights, which refers to the overload of information that needs to be filtered.
- The Academic Compass, which points to the most authoritative sources.
- The Golden Rule, which is a universal principle for all research.
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Which of the following is the key pou (concept) of Te Whatu Aho Rau framework?

- Aronga (purpose)
- Tatai Hononga (connections)
- Pūtaketanga (origins)
- All four of the pou (concepts) of the framework.
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Te Whatu Aho Rau information evaluation framework suggests a more holistic perspective than the traditional Western linear approach to evaluating sources. True or False?

- True.
- False.
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The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=41#h5p-14>

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-

CHAPTER 5

Reference management

CATHERINE DOUGHTY

At undergraduate study, referencing may have appeared as a very black and white process, where you followed prescribed [rules](#) and [guidelines](#). As a postgraduate researcher, referencing forms a role of utmost importance to how you convey information and maintain your academic integrity.

New referencing challenges will confront you on your postgraduate learning journey. You will be referring to possibly a broader range of sources, a greater number of them, and over a longer period. You are likely to be publishing journal articles, giving presentations, and submitting a thesis ... and generating new knowledge within the body of knowledge of your subject discipline.

How will you keep track of your references? You will need a system to record, store and easily retrieve them.

How will you make sense and meaning from all that you read? You will need a system for your own notes, ideas and reflections on what you find.

Reference management software is one solution to both of these needs.

REFERENCE MANAGEMENT SOFTWARE

Allows you to:

- **Store and manage PDFs of sources** such as journal articles, book chapters, reports, podcasts, websites and more source types in your own personalised library, on a single platform. Use folders and tagging for organisation.
- **Store source details** of publications to use in your assignments.
- **Create accurate and consistent citations.**
- **Save yourself time** from manually compiling references, and from making errors, as citations may be created automatically.
- **Enable digital reading and enhance learning.** With the use of note-taking and text highlighting features helping you make sense of your research, do a thematic analysis of literature and draw out consistent findings.
- **Easily locate your sources** and your notes saved to your personal library with full-text search facilities.
- **Share sources among users or across multiple machines** for individual or collaborative research projects.

- **Reformat your citations to use different referencing styles** for publication purposes beyond your studies.
- **Access your personalised library beyond your studies.** Select a free to use software, otherwise you are likely to lose access with subscription-based tools when you leave your law school.

Note: Sometimes sources cannot be imported to your referencing library, due to the incompatibility of some search tools and websites. Although the use of referencing software can assist with managing sources and references, it is necessary that the rules of the chosen referencing style are referred to. Checking source reference details will become instinctive, and will ultimately save you time and will ensure accuracy of citations, compared to the full manual process of referencing.

Which reference management software should you use?

Software such as Zotero, Mendeley, Jurism, Refworks or EndNote will help you organise your references, insert citations, and automatically create your reference list. Check with your supervisor or lecturer to identify the approved referencing style that you will be using for your work. When you are certain of your referencing style, select a compatible reference management software from the table below.

Compatibility of Referencing Styles with Reference Management Software

Compatibility of Referencing Styles with Reference Management Software					
	Zotero	Mendeley	Jurism	Refworks*	Endnote*
APA (7th ed.)	✓	✓	✓	✓	✓
Chicago (17th ed.)	✓	✓	✓	✓	✓
IEEE	✓	✓	✓	✓	✓
MLA (9th ed.)	✓	✓	✓	✓	✓
NZLSG			✓		✓

* Some software attract subscription fees that the university covers whilst you are enrolled as a student.

Te Herenga Waka—Victoria University of Wellington

- [Referencing and Citing](#) > [Software and Apps](#) Library Guide

Review Quiz

According to the chapter, reference management software serves which of the following purposes for postgraduate researchers?

- It stores and manages sources, creates consistent citations, and enables digital reading with note-taking features.
- It automatically generates new research ideas.
- It replaces the need to manually check reference details.
- It is only useful for managing a large number of journal articles.
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Why might a postgraduate student face **new referencing challenges** compared to their undergraduate studies?

- Postgraduate work does not require a reference list.
- Referencing rules are different for postgraduate work.
- They will likely be referring to a broader range and greater number of sources over a longer period.
- Referencing is less important at a higher academic level.
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The text suggests that one of the significant limitations of using Microsoft Word's built-in reference function for postgraduate work is that it:

- Does not allow you to change referencing styles.
- Is too difficult to use.
- Lacks features like PDF management and support for collaboration.
- Is not compatible with academic journals.
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When selecting reference management software, what is the most important thing to check first?

- The cost of the software.
- The ability to access it after you graduate.
- Its compatibility with your approved referencing style.
- The file size of the software.
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Which of the following is a potential **risk** of using subscription-based reference management software?

- It can't be used for collaborative projects.
- It is not supported by New Zealand universities.
- You might lose access to your personalised library after you finish your studies.
- It cannot be used for a thesis.
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The interactive version of this H5P content is available at:

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=149#h5p-15>



CHAPTER 6

Learning resources

PHILIP WORTHINGTON

This chapter contains a variety of resources to help you learn the content of the book

Te Whatu Aho Rau – A podcast about the information evaluation framework from Chapter 4 Evaluating your information sources (7'10")

Listen to Catherine Doughty and Philip Worthington discuss the framework



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://oercollective.caul.edu.au/research-skills-post-grad/?p=1262#audio-1262-1>

THE RESOURCES BELOW WERE CREATED USING GOOGLE NOTEBOOK LM OR GOOGLE GEMINI

The Postgraduate Research Journey – A video explainer (8'18")



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://oercollective.caul.edu.au/research-skills-post-grad/?p=1262#video-1262-1>

Mastering Research in the AI Age: Essential Skills for Postgraduates – a podcast (21'27")



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<https://oercollective.caul.edu.au/research-skills-post-grad/?p=1262#audio-1262-2>

Reproducible Research Mastery The Advanced Academic Search Strategy from PICO to AI Pitfalls – a podcast(4’34”)



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

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=1262#audio-1262-3>

Postgraduate Research Mastery: Ethical Authority, AI vs. Integrity, and the Te Whatu Aho Rau Framework



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

<https://oercollective.caul.edu.au/research-skills-post-grad/?p=1262#audio-1262-4>

Research Quiz

Take this quiz based on the book, it has twelve questions



Created by Philip Worthington
with Adobe Acrobat

[Take the quiz](#)

1 / 12

According to the Information Literacy Spaces Model presented in the introduction, what is the central concept that integrates academic, disciplinary, digital, and professional literacies?

A. Critical Thinking

B. Academic Literacy

C. Information Literacy


D. Digital & Media Literacy

Hint ▾ Next

Public Notebook – Talk with the book

Use this [public Notebook](#) to chat, question and interact with the text of *Postgraduate Research Skills: A Library Primer*.

Chat



Postgraduate Research Skills: A Library Primer

1 source

The provided text is an open educational resource titled "Research Skills for Postgraduate Study: A Library Primer", published by Te Herenga Waka—Victoria University of Wellington. This academic guide focuses on equipping postgraduate students with fundamental research competencies, distinct from undergraduate work, emphasizing rigor and systematic searching. The book covers core stages of the research process, including formulating a strong research question, conducting comprehensive literature searches using tools like Boolean operators and subject headings, and critically evaluating information sources through frameworks like Te Whatu Aho Rau. A significant portion addresses the opportunities and challenges presented by Artificial Intelligence (AI) tools in academic searching, stressing the importance of mastering traditional skills first to avoid an "illusion of learning." Finally, the text advises on reference management using software like Zotero or EndNote to maintain academic integrity.

Save to note

Add note Audio Overview Mind Map

Start typing... 1 source

What core library-centric research skills are essential for successful postgraduate study? How do traditional and emergi

Studio

Audio Overview






Video Overview

Mind Map

Reports

Flashcards

Quiz




-  The Postgraduate Research Journey
1 source · 23h ago
-  Postgraduate Research Skills and Information...
1 source · 23h ago
-  Research Quiz
1 source · 23h ago
-  Postgraduate Research Skills: A Comprehensive...
Study Guide · 1 source · 23h ago
-  Research Flashcards
1 source · 23h ago


Add note





Research Flashcards, Mind Map, and Reports are available.

Create report ✕

Format

- Create Your Own**
Craft reports your way by specifying structure, style, tone, and more
- Briefing Doc** 
Overview of your sources featuring key insights and quotes
- Study Guide** 
Short-answer quiz, suggested essay questions, and glossary of key terms
- Blog Post** 
Insightful takeaways distilled into a highly readable article

 Suggested Format


- Training Manual** 
A manual for training new postgraduate research advisors and academic...
- Policy Proposal** 
A proposal for integrating advanced research skills and AI literacy into university...
- Key Concepts Explainer** 
An introduction to the fundamental ideas and models for postgraduate research.
- Step-by-Step Guide** 
A practical walkthrough of the entire postgraduate research process from start to finish.

Versioning History

This page provides a record of changes made to this textbook. Each set of edits is acknowledged with a 0.01 increase in the version number. The exported files for this toolkit reflect the most recent version.

If you find an error, please contact philip.worthington@vuw.ac.nz.

Version	Date	Change	Details
1.00	15 September 2025	Published	
1.01			
1.02			



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Disclosure - use of Artificial Intelligence

- *Artificial Intelligence Tool(s)*: Microsoft Copilot (Te Herenga Waka—Victoria University of Wellington institutional instance) was used to identify and list terms needing explanation in a Glossary
- *Visualisation*: The kete or basket of knowledge image used for the cover was generated using ChatGPT.
- *Writing—Review & Editing*: ChatGPT was used to write early drafts of sections of text.

This disclosure statement uses *The Artificial Intelligence Disclosure (AID) Framework*. Weaver, K. (2024). The Artificial Intelligence Disclosure (AID) Framework: An Introduction. *College & Research Libraries News*, 85(10), 407. doi:<https://doi.org/10.5860/crln.85.10.407>

Your thoughts?

This book is part of an open education initiative, and your feedback helps keep it accurate, relevant, and useful for learners everywhere.

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Your contributions support continuous improvement and help make this resource better for everyone. Thank you for being part of the open education community.

Philip Worthington, Editor

