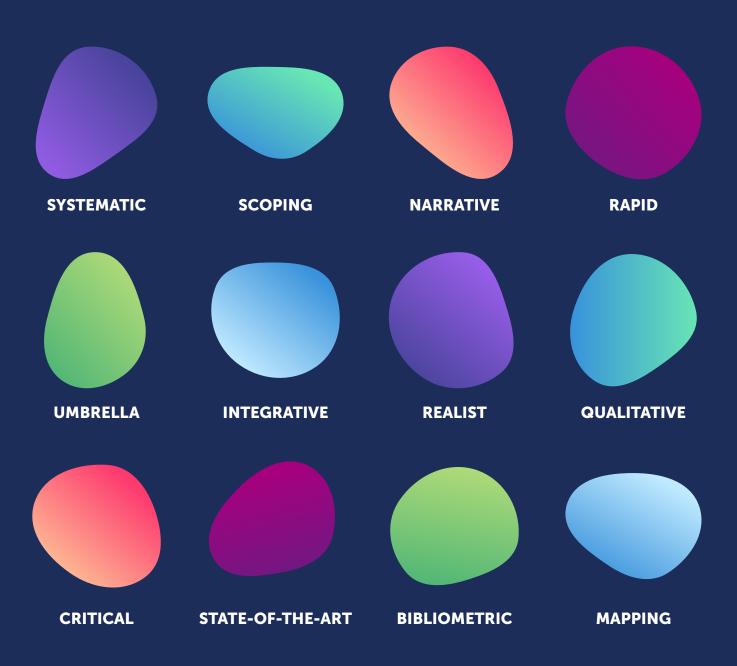
Understanding Review Types in Research





Introduction

Welcome to this guide to some common literature review types.

Understanding the right tool to use when synthesising evidence is critical for the production of credible and impactful knowledge.

As a student, researcher or librarian this guide can help you better understand some of the most commonly used types of literature reviews used in research. This guide will help you understand the purpose of these reviews and how to choose the right one.

Inspired by the knowledge of hundreds of researchers, this guide compiles descriptions and examples of common literature reviews. We hope this guide becomes an essential part of your research journey.

About the author

We are Covidence. Launched in 2014, Covidence is a not-for-profit world leading Software as a Service (SaaS) platform. Our platform enables health and science research teams to rapidly synthesise and uncover actionable insights from the mountains of research produced around the world. Leading institutions worldwide use Covidence to create the knowledge that shapes our society.

If you find this guide helpful, please share it with your community so everyone can benefit. Feel free to use the pictures and drawings in your own content. We'd appreciate it if you could include a shout-out: 'Diagrams and illustrations courtesy of Covidence,' along with a hyperlink to the <u>eBook</u> whenever you can. Thanks for spreading the word!

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01 Introduction

What is evidence synthesis?

Evidence synthesis is the process of identifying, evaluating, and integrating findings from multiple studies to answer a research question. Instead of relying on the results of a single study, which may be limited by scope, sample size, or methodology, evidence synthesis combines data and insights from a body of research. This provides a more comprehensive understanding of an intervention, exposure, concept, phenomenon of interest, or topic. The process can take various forms including systematic reviews, scoping reviews, or rapid reviews, each with its own methodology and purpose.

Evidence synthesis has a crucial role in evidence-based practice, policy, and informed decision-making. In healthcare, for example, synthesised evidence can guide clinical guidelines, position statements, policy development, and funding priorities. An example of this might be whether pregnant women should be tested for diabetes early or later in pregnancy. In other fields, such as education, environmental management, and social sciences, evidence synthesis supports policy development and the creation of interventions and strategies founded on the best available research. An example of this could be deciding whether introducing daily structured reading sessions in primary schools is more effective than an informal, flexible approach to improving literacy rates.

As well as summarising existing literature, evidence synthesis can identify gaps in knowledge, highlight inconsistencies in the literature, and suggest directions for future research, making it an indispensable tool for advancing both science and practice.

Why are review types important?

Not all review types serve the same purpose. Some are rigorous and comprehensive (like systematic reviews), while others are more exploratory (like scoping reviews) or conceptual (like narrative reviews). Choosing the right review type ensures that the approach aligns with the research objective, whether that's to summarise the best available evidence, map the extent of research in a field, explore theoretical concepts, or compare findings across multiple reviews. Choosing the wrong review type can lead to misleading conclusions or missed opportunities.

Understanding and selecting the appropriate review type improves transparency, reproducibility, and overall impact, which are essential for maintaining credibility. Clear knowledge of the differences between review types helps avoid the misuse or misinterpretation of findings, promotes efficient research practices, and highlights gaps that future studies can address. Ultimately, the choice of review type plays a key role in determining the quality, relevance, and trustworthiness of the evidence produced.



The role of review types in research

Reviews play a vital role in research by serving multiple purposes that go beyond simply summarising existing studies, including:

- Informing policy and practice Reviews can provide evidence-based recommendations to guide decision-making in healthcare, education, environmental management, and many other fields.
- **Identifying trends and patterns** Reviews can reveal common trends, emerging themes, patterns or changes in research focus over time.
- **Highlighting knowledge gaps** Reviews can identify where evidence is limited or inconsistent.
- **Evaluating the quality of evidence** Reviews can assess the strength, reliability, and applicability of existing literature.
- **Supporting theoretical development** The synthesis of the literature in a review can be used to refine, challenge, or build new conceptual frameworks and models.
- **Prevent research waste** Reviews can place the focus of new studies on addressing unmet needs rather than duplicating existing work.



Matching the research question to a review type

Matching the research question to a review type

Ensuring that a research question is matched to the right type of literature review is critical for producing results that are meaningful, reliable, and useful. Different review types (e.g., systematic, scoping, narrative, or realist) serve distinct purposes, follow specific methodologies, and operate within unique scopes. Selecting the wrong review type can result in unnecessary work, findings that miss the mark, or conclusions that are not robust enough to guide policy or practice. For example, a scoping review to investigate the effectiveness of a high or low dose of a drug would waste effort and fail to produce useful treatment effect estimates. When the research question is well-aligned with the review type, it enables the researcher to choose the most suitable search strategy, inclusion criteria, data analysis approach, and reporting style. It can also avoid introducing bias through inappropriate methodology. This ensures that the review can effectively address its aims and meets the needs of its intended audience or stakeholders. For example, policymakers rely on systematic reviews for policy recommendations, while educators may find narrative reviews more useful.

The most effective way to align a research question with the right review type is to begin by clearly defining the purpose, scope, and intended application of the findings. Using structured frameworks such as PICO (Population, Intervention, Comparison, Outcome), PEO (Population, Exposure, Outcome) or PCC (Population, Concept, Context) can help shape the question and reveal whether it calls for a focused, evaluative approach or a broader, exploratory investigation. It is important to consider the expected volume and nature of the available evidence, available time and resources, and whether the review needs to critically assess study quality or simply map the existing literature. Engaging subject experts, librarians, or information specialists early in the process can fine-tune the alignment between question and methodology, enhancing both the efficiency and the rigour of the review.

The table outlines some commonly used frameworks and the associated review types. The list is not exhaustive.



Systematic review, rapid review and umbrella review

example question	Common framework		Example
n adults with type 2 diabetes,	PICO	Population	Adults with type 2 diabetes
earbohydrate diet compared		Intervention	Low-carbohydrate diet
educing HbA1c levels?		Comparison	Standard diabetic diet
		Outcome	HbA1c
How does relocation due to rising sea levels affect the cultural dentity of coastal communities in	PEO	Population	Coastal communities in the South Pacific
he South Pacific?		Exposure	Rising sea levels due to climate change
		Outcome	Forced relocation and its impact on cultural identity
What is the diagnostic accuracy f rapid antigen tests compared with RT-PCR for detecting ARS-CoV-2 infection in adults	PIRT	Participants	Adults with symptoms suggestive of COVID-19 in community or hospital settings
presenting with COVID-19-like		Index test	Rapid antigen test
ymptoms?		Reference standard	RT-PCR test
		Target condition	SARS-CoV-2 infection

Scoping review

Example question	Commor	n framework	Example
What is known about the impact of social media use on body	PCC	Population	University students
image among university students in higher education settings?		Concept	Impact of social media use on body image
		Context	Higher education settings



Narrative review

Example question	Common	framework	Example
What are the experiences of	PICo	Population	Teaching assistants
teaching assistants providing social and emotional support to students in primary schools?		Interest (phenomena of interest)	Providing social and emotional support
		Context	Primary schools
In urban secondary schools, how do gamified learning apps	SPICE	Setting	Secondary school in urban settings
compare with traditional exercises in improving senior students'		Perspective	Senior students
engagement and problem-solving skills in mathematics?		Intervention or Phenomenon of interest	Gamified apps used in mathematics
		Comparison	Traditional teaching exercises
		Evaluation	Student engagement and problem- solving skills
What barriers and facilitators influence decision-making in	SPIDER	Sample	Rural general practitioners
antibiotic prescribing among rural general practitioners?		Phenomenon of Interest	Decision-making in prescribing antibiotics
		Design	Interviews or focus groups
		Evaluation	Barriers and enablers
		Research type	Qualitative
See systematic review example	PEO	Population Exposure Outcome	See systematic review example

Integrative review

Example question	Commo	n framework	Example
How do both RCTs and patient interviews inform chronic pain	PICo	Population	Patients with chronic pain
management?		Interest (phenomena of interest)	Development of chronic pain management programmes
		Context	Pain clinics



Realist reviews

Example question	Common framework		Example	
In medium-sized cities with limited public transport infrastructure, how and under what conditions does the	СМО	Context	Medium-sized cities with limited public transport infrastructure and high rates of private car use	
introduction of a subsidised electric bus network increase ridership, reduce congestion, an lower emissions?		M echanism	Introduction of a subsidised electric bus network intended to improve accessibility, reduce trave costs, and promote environmental sustainability	
		Outcome	Increased public transport ridership, reduced traffic congestion, and lower greenhouse gas emissions	

Qualitative reviews

Example question	Common	framework	Example	
Gee narrative review example	PICo	Population Interest (phenomena of interest) Context	See narrative review example	
See narrative review example	SPICE	Setting Perspective Intervention or Phenomenon of interest Comparison Evaluation	See narrative review example	
See narrative review example	SPIDER	Sample Phenomenon of Interest Design Evaluation Research type	See narrative review example	
Gee systematic review example	PEO	Population Exposure Outcome	See systematic review example	



Critical review

Example question	Common framework		Example	
What problems are associated with the modern day classroom environment?	DAE	Description	Students observed classroom behaviours	
environment.		A nalysis	Reasons for behaviour in different environments	
		Evaluation	What is the best course of action to remediate problems observed	

State-of-the-art review

Example question	Common framework		Example	
See systematic review example	PICO	Population Intervention Comparison Outcome	See systematic review example	
What are the views and experiences of healthcare workers regarding vaccination for seasonal influenza?	SALSA	Search	Search for relevant literature on vaccination for seasonal influenza in healthcare workers	
seasonal illidenza:		A ppraisa L	Appraising the quality and relevance of various sources identified	
		S ynthesis	Synthesise the evidence	
		A nalysis	Generate themes to understand vaccination experiences in this population	



Overview of common review types

Systematic Review

Clear comparison, population, and outcome—ideal for systematic analysis

Example questions

- What is the effectiveness of mindfulness-based interventions compared with usual care in reducing anxiety symptoms in adults with generalised anxiety disorder?
- Can artificial intelligence applications improve solid waste management schemes from collection to disposal?
- In patients with suspected tuberculosis, what is the accuracy of the Xpert MTB/RIF assay compared with culture for the diagnosis of pulmonary tuberculosis?
- Does Vitamin C compared with placebo reduce the incidence and severity of the common cold in adults
- In children under five years old, is exposure to second-hand smoke associated with an increased risk of developing acute respiratory infections?
- Are mobile devices in the primary school classroom effective in improving student literacy attainment?

What is a systematic review?

A systematic review is considered the gold-standard for evidence-based research. It is a rigorous and structured synthesis of evidence focused on a well-defined research question. It follows a pre-specified protocol, comprehensive search strategy, strict eligibility criteria, data extraction and quality assessment. This is followed by a critical analysis or synthesis of the evidence. This transparent and reproducible approach minimises the risk of introducing bias and subjectivity. Systematic reviews encourage research collaboration through local, national and international networks. They are appropriate for any research discipline.

There are subgroups of systematic reviews. These follow the same methodological rules but target specific evidence types:

- **Intervention systematic review:** Synthesises evidence to determine the effectiveness and safety of a specific intervention or exposure compared to alternatives.
- **Diagnostic test accuracy review:** Evaluates how accurately a test identifies, or rules out, a condition compared to a reference or gold standard.
- **Prognostic review:** Summarises evidence on the likely course or outcome of a condition over time in specific populations.



- **Aetiology/harm review:** Examines evidence on the causes of a condition or the harmful effects of exposures or interventions.
- **Qualitative review:** Integrates findings from qualitative studies to explore experiences, perceptions, and contextual factors.
- **Economic systematic review:** Synthesises cost-effectiveness and economic evaluation evidence to inform resource allocation decisions.
- **Living systematic review:** Maintains an up-to-date synthesis of evidence by incorporating new research as soon as it becomes available.

Who uses systematic reviews and for what purpose?

Systematic reviews are used in every discipline where decisions, policies, or future research depend on a clear, high-certainty, unbiased synthesis of existing evidence.

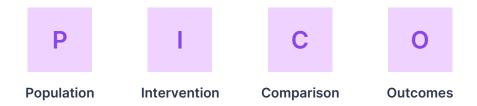
Discipline	Applications of systematic reviews
Medical and health sciences	Evidence-based practice, informing clinical guidelines, evaluating treatments, diagnostic test accuracy, patient safety, healthcare delivery models, patient education, rehabilitation approaches, nursing interventions, occupational therapy methods, disease prevention strategies, health promotion, vaccination programs, nutrition policies, or environmental health.
Social sciences, humanities	Education interventions, social policy development, mental health programs and prevention, criminal justice reform, child protection, social work practices, effectiveness of psychological therapy, developmental and behavioural interventions, historical debates, philosophical approaches, or cultural analysis.
Science and engineering	Safety and effectiveness of new technologies, software engineering practices, artificial intelligence (AI) or machine learning (ML) applications.
Environmental sciences	Climate change adaptation/mitigation, biodiversity conservation, pollution control, sustainable land use, green infrastructure, environmental monitoring methods, or renewable energy solutions.
Business and economics	Leadership and management practices, organisational change, economic development strategies, marketing effectiveness, or innovation adoption.
Education	Teaching and learning methods, digital learning tools, curriculum effectiveness, or teacher professional development.



Framework

Systematic reviews often use the PICO (Population, Intervention, Comparison, Outcome) framework when addressing intervention review questions, but the choice of framework depends on the question and the review type. For example, PEO (Population, Exposure, Outcome) may be used for aetiology or risk factors and PIRT (Participants, Index test, Reference standard, Target condition) for diagnostic test accuracy systematic reviews.

Systematic reviews most commonly follow the PICO framework:



- **Population:** The specific population or group that you want to study.
- Intervention: The treatment, exposure, or intervention you are investigating.
- **Comparison:** The comparison group or alternative intervention you are investigating. This can be a placebo, another intervention, standard care/procedure, or the absence of the intervention.
- **Outcomes:** The outcomes you are interested in measuring or evaluating. These can be clinical or procedural outcomes, participant-reported outcomes, harms, or any relevant endpoints.



- **Population:** The participants or population being studied.
- **Exposure:** The issue, experience, or factor being studied (e.g., condition, situation, or risk factor).
- **Outcome:** The outcomes or phenomena of interest (e.g., experiences, attitudes, or perceptions).





- **Participants:** The specific population of interest for whom the diagnostic test is intended.
- Index test: The diagnostic test or tests being evaluated.
- **Reference standard:** The condition against which the index test's results are compared, such as another established diagnostic method or a confirmed clinical diagnosis (gold standard).
- Target condition: The disease or condition that the index test aims to detect or rule

Key features

- Follows an a priori protocol that is often registered (e.g., PRISMA-P; PROSPERO, InPlasy, Open Science Framework).
- Exhaustive, reproducible search across multiple databases and other sources.
- · Ideally using dual screening and data extraction.
- Data extracted using structured forms.
- Critical appraisal of included studies using standardised tools depending on the type
 of included studies (e.g., <u>Cochrane risk of bias tool</u>; <u>ROBINS-I</u>, <u>CASP</u>; <u>Newcastle-</u>
 Ottawa scale; <u>JBI tools</u>; <u>QUADAS</u>).
- Frequently uses a statistical analysis to summarise data or meta-analysis (optional).
- Follows standardised reporting guidelines (e.g., <u>PRISMA 2020</u>, <u>PRISMA-DTA</u>, <u>PRISMA-LSR</u>; <u>MOOSE</u>).

Limitations

Resource intensive for cost and person-hours especially when dual screening and data extraction are undertaken. Can take six months to a year to complete depending on the breadth and complexity of the research question. The term 'systematic review' is often mistakenly used as a blanket term to describe other review types. Reviewers can undertake the review process as a single reviewer or search only one database limiting generalisability and increasing the risk of reporting and selection biases.



Key takeaways: Systematic review

- **Purpose:** To identify, assess, and comprehensively synthesise all relevant studies related to a specific research question.
- **Research question:** Focused questions on effectiveness, diagnosis, outcomes, patterns, or experiences for example.
- Framework: PICO (population, intervention, comparison, outcomes) is most commonly used.
- Common uses: Evaluation of the effectiveness of interventions, diagnosis, prognosis, aetiology, qualitative or economic evidence. Source of evidence for guideline and policy documents.
- **Methods:** Structured protocol; exhaustive search of multiple sources; transparent inclusion/ exclusion criteria; critical appraisal; synthesis (quantitative or qualitative).
- **Time & effort:** Medium to high; may take up to a year depending on complexity; requires planning, database searching, and analytical skills.
- **Suitability:** Postgraduate and academic researchers. Policy and guideline research. It is often used as a tool for teaching research methodology.
- Output: Evidence synthesis with pre-specified methods. May include statistical analysis
 or meta-analysis (if appropriate), narrative summary, and or tabular comparisons. Includes
 diagnostic test accuracy, aetiology, prognostic, qualitative, living and cost-effectiveness
 reviews.

Resources

- <u>PRISMA-Protocols (PRISMA-P)</u>: Facilitates the development and reporting of systematic review protocols.
- <u>PROSPERO</u>: Prospective register of systematic reviews with a focus in healthcare, public health, crime, justice, social welfare, and education.
- INPLASY: Protocols are usually published within 48 hours.
- Open Science Framework (OSF): Pre-published manuscripts and pioneering research protocols.
- <u>Cochrane risk of bias tool</u>: Assesses the quality of randomised trials.
- ROBINS-I: Appraises the quality of non-randomised intervention studies.
- <u>Critical Appraisal Checklists (CASP)</u>: Tools to appraise individual studies of different designs.
- Newcastle-Ottawa scale: Appraises the quality of non-randomised studies.
- <u>JBI tools</u>: Appraises individual studies of different designs and systematic reviews themselves.
- QUADAS (Quality Assessment of Diagnostic Accuracy Studies): Evaluates the quality of diagnostic accuracy studies.



- PRISMA 2020 (Preferred Reporting Items of Systematic reviews and Meta-Analyses) Comprehensive guidance for the preparation and publication of systematic reviews.
- PRISMA- Diagnostic Test Accuracy (PRISMA-DTA): Assists transparent reporting of systematic reviews including diagnostic test accuracy studies.
- <u>PRISMA- Living Systematic Review</u> (PRISMA-LSR): Assists the transparent reporting of systematic reviews including living systematic reviews.
- Reporting Guidelines for Meta-analyses of Observational Studies (MOOSE): Assists the reporting of reviews including observational studies.



Scoping review

Broad exploratory question, aimed at cataloguing what's out there

Example questions

- What are the psychological and emotional impacts of the COVID-19 pandemic on adolescents?
- What types of digital health interventions have been used to support self-management in people with chronic heart failure?
- What impact do sports have on the environment?
- How are human factors and ergonomic issues integrated into the Design-for-Safety research in the industrial manufacturing work environment?
- Which interventions have been used to teach science in primary education?

What is a scoping review?

Scoping reviews provide an opportunity to map the breadth of the existing and emerging evidence on a broad topic and are perceived as exploratory. Unlike systematic reviews, scoping reviews do not address specific research question/s. They are useful for identifying key characteristics within the evidence and research gaps. They are often used in the early stages of research as an exploratory method prior to a more structured systematic review and are increasingly used within funding proposals to justify the need for a systematic review or a primary study. Scoping reviews are particularly useful for helping understand emerging evidence and the breadth of information on a new or poorly defined topic. They often incorporate diverse studies and methodologies (quantitative, qualitative, mixed-methods). The methodology of a scoping review is more flexible than a systematic review and they often do not provide a critical appraisal of included studies.

Who uses scoping reviews and for what purpose?

Scoping reviews are used across multiple diverse disciplines as they map existing evidence. They are used to provide a broad overview of available research to identify research gaps.



Applications of scoping reviews
Mapping evidence on emerging treatments, complex interventions, patient experiences, identifying research gaps before systematic reviews, exploring broad topics (e.g., nursing care models, rehabilitation approaches), mapping interventions across populations/ settings, understanding broad determinants of health, environmental health risks, or policy landscapes (e.g., obesity prevention strategies).
Mapping policy approaches, education practices, social programs, justice system reforms, exploring new or emerging psychological therapies, mapping evidence on wellbeing and resilience, identifying measurement tools, exploring research landscapes in history, philosophy, or cultural studies where evidence is diverse and diffuse.
Surveying technologies, standards, and applications (e.g., robotics, Al ethics).
Mapping climate adaptation strategies, renewable energy strategies, biodiversity initiatives, sustainability practices.
Broad mapping of organisational practices, management strategies, entrepreneurship, or economic development approaches.
Mapping teaching strategies, digital learning technologies, curriculum innovation, or assessment methods.

Framework

Unlike the PICO framework (Population, Intervention, Comparator, Outcome) commonly used in systematic reviews to address narrowly focused clinical questions, the PCC framework (Population, Concept, Context) is intentionally broader and more flexible, making it better suited for exploratory reviews that aim to map diverse forms of evidence rather than evaluate effectiveness.



- **Population:** The characteristics of the individuals or groups being studied.
- **Concept:** The core idea, phenomenon, or variable under investigation.
- **Context:** The specific setting or environment in which the population and concept are studied.



Key features

- Follows a protocol that should be registered a priori (e.g. <u>INPLASY</u>, <u>FigShare</u>, <u>Open Science Framework (OSF)</u>). <u>Joanna Briggs Institute</u> provide useful guidance on protocol development.
- Broad and exploratory research question.
- Comprehensive search of at least one database or source to identify a wide range of relevant literature.
- Dual or single reviewer screening.
- Data extraction completed with a standardised form.
- No mandatory critical appraisal. Optional appraisal can add value, especially if the review is mapping evidence in clinical or policy-sensitive areas.
- Data charting and synthesis is usually narrative and often iterative. There is often a summary of key findings, identification of patterns, and mapping of primary concepts and evidence gaps. Data outputs are often visual using charts, graphs and tables.
- PRISMA-ScR is the preferred reporting guidelines.

Limitations

Most scoping reviews don't assess the methodological quality of included studies making it difficult to judge the certainty of the evidence. It is not possible to determine effectiveness due to a lack of quantitative analysis. It is often difficult to provide an indepth and meaningful summary, as the review questions in a scoping review are broad and cover many sources.

Heterogeneity in factors such as study design, population, and outcomes make direct comparisons difficult. Because scoping reviews are broad they often result in large volumes of studies for screening and extraction. Scoping reviews are quickly outdated in rapidly moving research areas. They are also prone to scope expansion or 'creep', where the research question changes during the review which can lead to inconsistencies and challenges during synthesis.



• Key takeaways: Scoping review

- Purpose: To map the breadth of the existing and emerging evidence on a broad topic.
- Research question: Broad and exploratory.
- Framework: PCC (population, concept, context).
- Common uses: Evaluation of emerging or complex topics.
- **Methods:** Structured protocol; comprehensive search of at least one source; transparent inclusion/exclusion criteria; data charting (quantitative or qualitative).
- **Time & effort:** Medium; may take many months; requires planning, database searching, and synthesis skills.
- Suitability: Postgraduate and academic researchers.
- **Output:** Evidence synthesis with pre-specified methods. Narrative summary, and or tabular comparisons.

Resources

- Joanna Briggs Institute (JBI): Development of a scoping review protocol.
- Figshare: File repository for research data.
- Open Science Framework (OSF): Pre-published manuscripts and pioneering research protocols.
- INPLASY: Protocols are usually published within 48 hours.
- PRISMA-ScR: PRISMA for scoping reviews.



Narrative Review

Subjective synthesis of conceptual evolution, not strictly systematic

Example questions

- How has the concept of 'emotional intelligence' evolved in professional leadership literature over the past decade?
- What are the medical treatments for rheumatic fever?
- How has the application of sustainable building materials changed over the last ten years, and what have been the key challenges and opportunities?
- What are the effects of teacher expectations on student academic outcomes?
- Does the public trust or mistrust climate science?

What is a narrative review?

Narrative reviews provide a qualitative summary of evidence. They tend to be descriptive and can be used to summarise, interpret and critically evaluate evidence on a specific topic. They are flexible and less structured than systematic or scoping reviews but allow for depth of exploration. Narrative reviews do not aim to be inclusive of all available literature. The flexible approach of narrative reviews are useful for exploring complex or under-researched areas, identifying trends and research gaps that may not emerge through more structured literature reviews. Narrative reviews provide a qualitative synthesis of the research findings and are often organised around themes and concepts to provide context.

Who uses a narrative review and for what purpose?

Narrative reviews are useful to provide a broad overview, discussing trends, or exploring insights. They can be used for theoretical framing and are used across many disciplines. They may be useful in identifying research gaps that could lead to a more structured review of the evidence.



Discipline	Applications of narrative reviews
Medical and health sciences	Broad overviews of a condition or treatment area, theory development, summarising evolving evidence where systematic methods are not feasible, discussing professional practices, models of care, conceptual frameworks, or emerging debates in nursing and allied health, or conceptual approaches to prevention and health promotion.
Social sciences, humanities	Theoretical explorations, critical discussions of policy, synthesising diverse perspectives across sociology, politics, or social work, evolving approaches to therapy and mental health research, narrative syntheses of arguments, debates, and schools of thought.
Science and engineering	Providing broad context for emerging technologies, tracing development of methods or theories, or identifying key research areas.
Environmental sciences	Conceptual approaches to climate adaptation and sustainability debates.
Business and economics	Summarising theories of management, leadership, or innovation; or integrating diverse perspectives on economic policy.
Education	Theoretical debates on pedagogy, historical accounts of curriculum change, or conceptual perspectives on learning and assessment.

Framework

While no formal framework exists, best practices should be applied.

Key features

- Clearly defined research question to provide a focus for direction and purpose.
- No formal protocol and no need for a priori registration.
- Can be conducted by a single reviewer.
- Broad search of literature. Selective literature inclusion based on judgement and expertise. May or may not include grey literature.
- Organise and synthesise the evidence to provide a comprehensive understanding of the review topic.
- Useful for theory development or background information.
- Qualitative synthesis of evidence.
- No formal quality appraisal is required in a narrative review but the quality of the evidence in terms of strengths and weaknesses could be described.
- There are no universal reporting guidelines for narrative reviews although <u>SANRA</u> (Scale for the Assessment of Narrative Review Articles) provides some useful guidance on suggested content of narrative reviews.



Limitations

There is a high potential for selection bias and limited reproducibility in narrative reviews due to the lack of a formal protocol. There is no formal quality assessment of the included evidence. Without a systematic search there is a potential to miss relevant studies. Narrative reviews offer subjective interpretations that are open to critique and vary depending on the review team and the review context. The lack of quantitative synthesis prevents an evaluation of the certainty of evidence.

Yey takeaways: Narrative review

- **Purpose:** To provide a descriptive, flexible, and subjective summary of a research topic. Often includes critique.
- Research question: Broad question on research topic.
- Framework: No standardised research framework.
- **Common uses:** Provides a general overview of a topic for background information. Can be used for identifying research gaps, trends and insights.
- **Methods:** No protocol required; subjective search of one or more sources; broad and adaptive eligibility criteria, qualitative synthesis.
- **Time & effort:** Low; can be done quickly; minimal planning, database searching, or analytical skills required.
- **Suitability:** Postgraduate and academic researchers. As a tool for teaching research methodology as they provide a general overview of a topic.
- Output: Qualitative synthesis of evidence. Rarely includes statistical analysis.

Resource

SANRA: Scale for the Assessment of Narrative Review Articles



Rapid review

Time-sensitive, focused question with simplified methodology

Example questions

- Is social prescribing effective for suicide prevention in adults?
- Is physical activity effective for the management of glycaemic control in patients with type 2 diabetes mellitus?
- What is the impact of climate change on health and health services in Western Australia?
- Could active and machine learning improve the quality of education materials for cancer patients?
- Which early childhood programmes are effective in improving readiness for school in vulnerable children?

What is a rapid review?

A rapid review, sometimes known as a rapid evidence assessment, uses a streamlined method to speed up the process of evidence synthesis, usually to inform practice or policy. Rapid reviews are less comprehensive than systematic review but still follow the same principles within a time-constrained setting.

A rapid review includes techniques to shorten the timescale of traditional systematic reviews. These include carefully focusing the question, using less sophisticated search strategies, restricting or excluding grey literature, extracting only key variables and simplifying or excluding quality appraisal.

Who uses a rapid review and for what purpose?

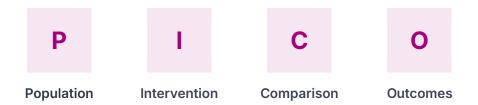
Rapid reviews are used by stakeholders who need rigorous and fast evidence. Rapid reviews are most often used when timely decisions are needed, for example during a public health crisis or for policy updates. They are used when there are time or financial constraints and systematic literature reviews are not feasible. They are also used when preliminary evidence is needed to guide future work or practice.



Discipline	Applications of rapid reviews
Medical and health sciences	Producing fast evidence to guide clinical guidelines, treatment decisions, pandemic/epidemic responses, urgent safety questions or policies (e.g., COVID-19, vaccine rollouts, emergency preparedness, opioid crisis), staffing models, or patient care interventions.
Social sciences, humanities	Rapid evidence to support policy changes in education, housing, justice, or social services, mental health interventions or wellbeing programs for urgent policy or practice needs.
Science and engineering	Quick summaries of technology effectiveness, safety standards, or innovation adoption for regulatory or industry needs.
Environmental sciences	Rapid evidence on climate adaptation, disaster response, biodiversity crises, or pollution control.
Business and economics	Fast overviews of economic recovery strategies, organisational change, or market interventions.
Education	Rapid evidence for curriculum changes, digital learning adoption, or urgent educational reforms.

Framework

Just like full systematic reviews, the framework used in a rapid review depends on the research question. For example, PICO (population, intervention, comparator, outcome) is typically applied to intervention questions. Other research questions may use the, PECO or PEO for aetiology or risk factors, or PIRT for diagnostic test accuracy (refer to Systematic Reviews for more information).



- **Population:** The specific population or group that you want to study.
- Intervention: The treatment, exposure, or intervention you are investigating.
- **Comparison:** The comparison group or alternative intervention you are investigating. This can be a placebo, another treatment, standard care, or the absence of the intervention.
- **Outcomes:** The outcomes you are interested in measuring or evaluating. These can be clinical outcomes, patient-reported outcomes, adverse events, or any relevant endpoints.



Key features

- Follows an a priori protocol that is either registered (e.g., <u>PROSPERO</u>, <u>INPLASY</u>, <u>Open Science Framework</u>) or published internally. <u>Cochrane</u> provides useful methodological guidance.
- Use simplified systematic review steps (e.g., limited search, single reviewer screening, limitation on language or dates of publication).
- May leave out grey literature search or quality appraisal of included studies.
- Meta-analysis (optional).
- Follows standardised reporting guidelines (e.g. <u>PRISMA 2020</u>, <u>PRISMA-RR</u> in development).

Limitations

Rapid reviews have an increased risk of bias because of the simplified process. They often lack a rigorous evaluation of the quality of the evidence. They are less comprehensive and therefore may miss or omit relevant evidence. The findings may be less generalisable than systematic literature reviews.

Yey takeaways: Rapid review

- **Purpose:** To rapidly identify, assess, and synthesise relevant studies related to a specific research question.
- **Research question:** Focused questions on effectiveness, diagnosis, outcomes, patterns, or experiences.
- Framework: PICO (population, intervention, comparison, outcomes).
- **Common uses:** Evaluation of the effectiveness of interventions or exposures in a time-constrained environment. Source of evidence for guideline and policy briefs.
- **Methods:** Structured protocol; comprehensive search of one or more sources; transparent inclusion/exclusion criteria; critical appraisal (optional), synthesis (quantitative or qualitative).
- **Time & effort:** Low to medium; often completed in under 3 months; requires planning, database searching, and analytical skills.
- **Suitability:** Postgraduate and academic researchers. Policy and guideline research. As a tool for teaching research methodology.
- **Output:** Evidence synthesis with pre-specified methods. Brief reports and policy briefs. May include statistical analysis or meta-analysis (if appropriate), narrative summary, and or tabular comparisons.



Resources

- <u>Cochrane Rapid Review</u>: Methods guide useful for reviews of effectiveness.
- <u>PROSPERO</u>: Prospective register of systematic reviews with a focus in healthcare, public health, crime, justice, social welfare, and education.
- INPLASY: Protocols are usually published within 48 hours.
- Open Science Framework (OSF): Register of research protocols.
- PRISMA 2020 (Preferred Reporting Items of Systematic reviews and Meta-Analyses) Comprehensive guidance for the preparation and publication of systematic reviews.



Umbrella review

Aggregating findings across multiple systematic review

Example questions

- How effective are psychological interventions for chronic pain?
- How effective is Green Supply Chain Management?
- What treatments are available for endometriosis?
- What are the health risks of climate change in Australia?
- What factors influence student absence?

What is an umbrella review?

An umbrella review, or review of reviews provides a comprehensive synthesis of previous systematic reviews and/or meta-analyses. It often addresses a much broader question than a traditional systematic review. An umbrella review can consolidate a vast amount of evidence from multiple sources and sits at the top of the hierarchy of evidence, providing the broadest possible synthesis. It has been most widely used within health and medical sciences, however, it is being used more widely within other research disciplines to aggregate systematic review evidence.

Who uses umbrella reviews and for what purpose?

Umbrella reviews are useful for providing an overarching synthesis of systematic reviews for broad guidance. They can be useful to identify research gaps, and support grant proposals by offering a high-level overview. They provide useful background materials for publications and theses.



Discipline	Applications of umbrella reviews
Medical and health sciences	Summarising evidence across multiple systematic reviews (e.g., all treatments for back pain, cancer screening, nursing, rehabilitation therapies, or mental health interventions; prevention strategies, health promotion campaigns, or policy interventions).
Social sciences	Summarising broad policy evidence (e.g., education interventions, justice reform, housing policies, psychological therapies, resilience training, or developmental intervention).
Science and engineering	Summarising reviews of engineering standards, safety practices, or emerging technologies.
Environmental Sciences	Bringing together systematic reviews on conservation effectiveness, climate adaptation, or pollution control.
Business and economics	Reviewing systematic reviews of leadership models, management strategies, or economic interventions.
Education	Bringing together reviews of teaching strategies, curriculum reforms, or digital learning tools.

Framework

Umbrella reviews usually follow the PICO framework (Population, Intervention, Comparison, Outcomes). While PICO is standard, umbrella reviews sometimes adapt it, e.g., to PICOS (adding "Study design"), to deal with review-level heterogeneity.



- **Population:** The specific population or group that you want to study.
- Intervention: The treatment, exposure, or intervention you are investigating.
- **Comparison:** The comparison group or alternative intervention you are investigating. This can be a placebo, another treatment, standard care, or the absence of the intervention.
- **Outcomes:** The outcomes you are interested in measuring or evaluating. These can be clinical outcomes, patient-reported outcomes, adverse events, or any relevant endpoints.



Key features

- Develop and register a review protocol (e.g., <u>PROSPERO</u>, <u>Open Science Framework</u>).
 Cochrane provides some comprehensive guidance on overviews of reviews.
- Involves systematic searching of multiple databases and sources.
- Screen and select relevant reviews based on pre-specified eligibility criteria.
- Data extraction using a standardised form.
- Assessment of risk of bias in the included systematic reviews (e.g., <u>AMSTAR-2</u>, ROBIS).
- Summarise findings narratively or quantitatively. Results are often presented in a tabular format highlighting key findings, trends, and gaps.
- The <u>RIGHT</u> statement (Reporting Items for practice Guidelines in HealThcare) and <u>PRIOR</u> statement (Preferred Reporting Items for Overviews of Reviews) are useful for reporting guidelines and umbrella reviews in healthcare.

Limitations

Umbrella reviews rely on the quality of the included systematic reviews and metaanalyses. Weaknesses in the included reviews will be carried through to the umbrella review. This can include reporting biases for positive or statistically significant findings. There may be heterogeneity between the included reviews due to differences in eligibility criteria, outcome measures and quality assessment tools. Umbrella reviews only summarise existing evidence which may be out-of-date. Evidence from new trials or studies will not be included. Multiple systematic reviews often include the same primary studies. This can inflate the apparent size of the evidence base and make it difficult to interpret pooled findings. It is difficult to explore subgroups of interest or individual study characteristics.



Key takeaways: Umbrella review

- **Purpose:** To identify, assess, and comprehensively synthesise all relevant systematic reviews and/or meta-analyses.
- **Research question:** Focused questions on effectiveness, diagnosis, outcomes, patterns, or experiences.
- Framework: PICO (population, intervention, comparison, outcomes)
- **Common uses:** The comprehensive summary of existing evidence is often used for clinical practice guidelines, evidence-based decision-making or policy development.
- **Methods:** Structured protocol; exhaustive search of multiple sources; transparent inclusion/ exclusion criteria; critical appraisal; synthesis (quantitative or qualitative).
- **Time & effort:** Medium to high; may take many months; requires planning, database searching, and synthesis skills.
- Suitability: Academic researchers. Policy and guideline research.
- **Output:** Evidence synthesis with pre-specified methods. Usually a narrative summary with tabular comparisons.

Resources

- <u>PROSPERO</u>: A prospective register of systematic reviews with a focus in healthcare, public health, crime, justice, social welfare, and education.
- Open Science Framework (OSF): Register of research protocols.
- Chapter V: Overviews of reviews Cochrane Handbook.
- <u>AMSTAR 2</u>: Critical appraisal tool for systematic reviews that include randomised or nonrandomised studies of healthcare interventions, or both.
- ROBIS: Assesses risk of bias in systematic reviews.
- RIGHT statement: Reporting Items for practice Guidelines in HealThcare.
- PRIOR statement: Preferred reporting items for overviews of reviews.



Integrative review

Integrates quantitative and qualitative evidence for holistic approach to evidence

Example questions

- What is the association between psychological factors and self-care in patients with cardiac failure?
- What are the experiences and perceptions from patients and healthcare staff following an inpatient fall?
- What are the barriers and enablers for adopting and implementing sustainable construction?
- What are the mental health impacts of climate change among vulnerable populations?
- What are the clinical reasoning teaching strategies in nursing education?

What is an integrative review?

Integrative reviews provide a synthesis of both qualitative and quantitative evidence to provide a more comprehensive and holistic understanding of a topic. An integrative review allows the inclusion of both primary studies (quantitative and qualitative) and grey literature (e.g. discussion papers, policy documents). They provide opportunities to integrate the evidence from experimental (intervention) studies and from non-experimental studies (interviews, focus groups, observations, grey literature). This allows for exploration of new insights and can be useful for generating theory and classification of constructs. Integrative reviews are widely used in healthcare settings.

Who uses integrative reviews and for what purpose?

Integrative reviews are useful for developing new theories or refining existing ones, they can be used for informing practice or policy. They are most often used in nursing research. The qualitative evidence can be valuable for identifying barriers and enablers and evidence gaps for future research.



Discipline	Applications of integrative reviews
Medical and health sciences	Synthesising diverse evidence on clinical interventions, patient experiences, and healthcare delivery models. Understanding nursing practices, care models, patient outcomes, combining empirical research with theoretical papers. Integrating epidemiological data with qualitative community perspectives on prevention and health promotion.
Social sciences	Combining statistical program evaluations with lived-experience studies (e.g., social policy, criminology). Bringing together trial results and qualitative insights on therapy outcomes or mental health experiences.
Science and engineering	Integrating experimental results with practitioner perspectives or designing case studies.
Environmental sciences	Combining ecological monitoring with qualitative community or policy insights.
Business and economics	Merging survey data with case studies or qualitative insights into management and organisational change.
Education	Synthesising test outcomes with teacher/student experiences, or curriculum implementation.

Framework

Integrative reviews commonly use a PICo framework



- **Population:** The participants, groups or community being studied.
- Interest: The phenomenon of interest, such as an experience, perspective, process, or issue.
- **Context:** The setting, situation, or environment where the phenomenon occurs.



Key features

- A protocol is not mandatory but is strongly recommended for transparency, reproducibility, and to reduce bias. Can be registered with <u>Open Science Framework</u> or <u>Figshare</u> for example.
- Clearly defined research question or phenomenon to be studied.
- Comprehensive search across multiple databases to identify relevant literature.
- Critical appraisal of included studies using appropriate tools based on the methodologies of the included studies (e.g., Cochrane tools, CASP, JBI tools).
- Data reduction or classification followed by analysis that can be qualitative/thematic
 or quantitative (meta-analyses are optional). A narrative approach is used to
 integrate the qualitative and quantitative findings. There is no standardised approach
 to integration.
- With no dedicated, universally accepted reporting guideline, authors typically adapt guidance from related review types and combine elements that fit their mixedmethod, multi-source approach (e.g. <u>PRISMA 2020</u>, <u>ENTREQ</u>, <u>SANRA</u>).

Limitations

Integrative reviews are methodologically complex, time intensive, and require carefully planning and advanced synthesis skills in quantitative and qualitative data. Trying to integrate these approaches into a single narrative risks oversimplification. The lack of standardised methods for integration can lead to inconsistencies. There is a risk of study selection bias, lack of reproducibility and subjectivity where there is no formal protocol available. Bringing together diverse studies from mixed methodologies makes it difficult to draw strong conclusions, especially if the evidence is dominated by one particular type of study design (e.g., non-experimental).



Key takeaways: Integrative review

- **Purpose:** To synthesise diverse types of evidence (quantitative, qualitative, and theoretical) to provide a comprehensive understanding of a topic, concept, or phenomenon.
- Research question: Focused questions on mixed-method approach to the topic of interest.
- Framework: PICo (Population, phenomenon of Interest, Context)
- **Common uses:** Guiding evidence-based practice or research-practice providing quantitative and qualitative perspectives. Developing theory.
- **Methods:** Protocol (optional); comprehensive search of multiple sources; critical appraisal (optional); data reduction, analysis and visualisation.
- **Time & effort:** High; may take many months/years; requires planning, database searching, and mixed-methods analytical skills.
- Suitability: Postgraduate and academic researchers.
- Output: Data visualisation through tables, charts and graphs.

- Figshare: File repository for research data.
- Open Science Framework (OSF): Register of research protocols.
- Cochrane: Critical appraisal tools.
- Joanna Briggs Institute (JBI): Critical appraisal tools.
- Critical Appraisal Skills Programme (CASP): Critical appraisal tools.
- PRISMA 2020 (Preferred Reporting Items of Systematic reviews and Meta-Analyses):
 Comprehensive guidance for the preparation and publication of systematic reviews.
- <u>ENTREQ</u> Enhancing Transparency in Reporting the Synthesis of Qualitative Research: Reporting guidelines.
- SANRA: Scale for the Assessment of Narrative Review Articles.



Realist Review

Theory-driven - explores context-mechanism-outcome

Example questions

- What works for practitioners supporting people living with cancer to self-manage the physical and psychosocial consequences following systemic anticancer therapies?
- What is the relationship between perceived characteristics of clinical practice guidelines and their uptake?
- How do community health worker programs influence vaccination uptake, in which communities, and under what conditions?
- How do policy interventions reduce exposures to environmental hazards in Australia?
- What universal school-based interventions exist to promote inclusivity and acceptance of diverse sexual and gender identities and how and where were they implemented?

What is a realist review?

A realist review is a theory-driven method of evidence synthesis that examines the underlying theories behind programmes or interventions and their contexts. It adopts a generative view of causation: to explain a causal link between two events, it is necessary to identify the mechanism that connects them and the context in which the relationship occurs. The primary aim of a realist review is to test the causal mechanisms, or theories of change, that underpin interventions. It focuses on mapping Contexts, Mechanisms, and Outcomes within individual programs to understand variations, whether intended or unintended. A key advantage of this approach is its focus on understanding what works, for whom, in which contexts, and why. Realist reviews include diverse forms of evidence, both quantitative and qualitative, to explore the processes and impacts of interventions. They can help policymakers, health professionals and researchers determine how effective an intervention might be and the circumstances in which it may be most effective.

Who uses realist reviews and for what purpose?

Realist reviews are used to identify why complex, multi-component interventions work in specific contexts. They are also used to develop or refine theoretical frameworks to explain how interventions work. When stakeholders require actionable insights to guide programme implementation or policy design, a realist review offers in-depth explanations of what works, for whom, and in which contexts. Even when evidence is limited, this type of review can integrate available data to build a coherent picture of the mechanisms at play and the contexts in which they operate.



Social sciences, humanities Evaluating complex programs (e.g., criminal justice reform, welfare-to-work, social housing policies), understanding mechanisms in behaviour change, therapy engagement, or resilience interventions. Science and engineering Explaining adoption of new technologies, safety practices, or innovation pathways. Environmental sciences Exploring mechanisms behind conservation success, climate adaptation uptake. Business and economics Evaluating complex organisational change initiatives, leadership development, or innovation diffusion.	Discipline	Applications of realist reviews		
work, social housing policies), understanding mechanisms in behaviour change, therapy engagement, or resilience interventions. Science and engineering Explaining adoption of new technologies, safety practices, or innovation pathways. Environmental sciences Exploring mechanisms behind conservation success, climate adaptation uptake. Business and economics Evaluating complex organisational change initiatives, leadership development, or innovation diffusion.	Medical and health sciences	(e.g., chronic disease management, complex service delivery), understanding mechanisms in care delivery, professional education, teamwork models or policy impact (e.g., smoking bans, vaccine uptake,		
Environmental sciences Exploring mechanisms behind conservation success, climate adaptation uptake. Evaluating complex organisational change initiatives, leadership development, or innovation diffusion.	Social sciences, humanities	Evaluating complex programs (e.g., criminal justice reform, welfare-to-work, social housing policies), understanding mechanisms in behaviour change, therapy engagement, or resilience interventions.		
adaptation uptake. Business and economics Evaluating complex organisational change initiatives, leadership development, or innovation diffusion.	Science and engineering			
development, or innovation diffusion.	Environmental sciences			
	Business and economics			
Education Understanding how and why education reforms or teaching methods work differently across contexts.	Education	Understanding how and why education reforms or teaching methods work differently across contexts.		

The framework for realist reviews is CMO (contexts, mechanisms and outcomes):



- **Contexts:** The conditions, setting, or circumstances in which the intervention operates.
- **Mechanisms:** The underlying process, reasoning, or resources that trigger a change.
- **Outcomes:** The observable effect or result produced when the mechanism is triggered in a given context.



Key features

- Define the review question, objectives, and scope. This question should incorporate elements of context, mechanism, and outcome. Realist reviews often follow a structured protocol that can be registered (e.g. PROSPERO, INPLASY, Open Science Framework, Figshare).
- Searching is iterative, interactive, and purposive with no predefined sampling frame. Can include primary studies and narrative meta-syntheses.
- Study selection is usually done by two reviewers.
- No formalised risk of bias assessment, but rather an assessment of the rigour and relevance of the included studies.
- Use of a standardised data extraction form.
- Data synthesis through the development and refinement of theories about how the intervention works by identifying patterns across the studies using Context -Mechanism - Outcomes configurations.
- There is no universal standard reporting guideline for realist reviews but <u>RAMESES</u> (Realist and Meta-narrative Evidence Syntheses: Evolving Standards) may provide useful advice.

Limitations

Realist reviews are complex and resource intensive compared to some other review types. They rely heavily on interpretation that increases the risk of introducing reporting biases and can reduce reproducibility. The overall quality of evidence can be inconsistent due to the diversity of evidence (qualitative, quantitative, grey literature). Generating theory can be challenging if the evidence is limited or fragmented. Realist reviews are reliant on detailed textual information which is often absent from primary studies.



Yey takeaways: Realist review

- Purpose: To answer why, when and how an intervention may or may not work.
- Research question: Incorporates elements of context, mechanism, and outcome.
- Framework: CMO (Contexts, Mechanisms and Outcomes).
- **Common uses:** Primarily used to identify why complex, multi-component interventions work in specific contexts.
- **Methods:** Structured protocol; iterative search of multiple sources; interpretive and theoretically driven analysis.
- Time & effort: High; may take many months to a year; requires planning, and interpretive skills.
- **Suitability:** Postgraduate and academic researchers. Policy and guideline implementation research.
- **Output:** Evidence synthesis with pre-specified methods. May include narrative meta-synthesis, narrative summary.

- <u>PROSPERO</u>: Prospective register of systematic reviews with a focus in healthcare, public health, crime, justice, social welfare, and education.
- INPLASY: Protocols are usually published within 48 hours.
- Open Science Framework (OSF): Register of research protocols.
- Figshare: File repository for research data.
- RAMESES (Realist and Meta-narrative Evidence Syntheses: Evolving Standards).



Qualitative review

Seeks interpretive insights rather than measurable outcome

Example questions

- How do adults with depression describe their daily challenges and coping mechanisms?
- What are the experiences of adults living with chronic pain in managing their condition?
- What are the contextual experiences of female students in engineering programs?
- How do individuals' beliefs about climate change influence their behaviours and decisionmaking?
- What are the perceptions of high school students and their teachers regarding the impact of using online learning platforms on student engagement and learning outcomes?

What is a qualitative review?

A qualitative systematic review (qualitative evidence synthesis) uses an interpretive approach to integrate or compare the findings from primary studies. Qualitative reviews can be theory generating which can then be further evaluated. Qualitative reviews can be undertaken using systematic methodological approaches. Their approach is to search for themes or constructs and often support the findings with quotations or examples as supporting evidence. They are often used to explore barriers and facilitators and to provide details from the perspective of the population being investigated or studied. This type of review therefore possesses a considerable strength in complementing the research evidence alongside user-reported and practitioner-observed considerations. When these insights are transferable, they may be more powerful than isolated comments from questionnaires or surveys.

Who uses qualitative reviews and for what purpose?

Qualitative reviews are used to synthesise qualitative research, identifying themes and insights across studies. Qualitative reviews are often used to explore participant experiences or beliefs, behaviour, and implementation science.



Discipline	Applications of qualitative reviews		
Medical and health sciences	Patient and caregiver experiences, barriers/facilitators to treatment, acceptability of interventions; exploring nursing practice experiences, professional identity, interprofessional collaboration; exploring community perspectives on vaccination, stigma, health promotion, or screening uptake.		
Social sciences	Synthesising lived experiences of poverty, migration, social policy impact, justice system involvement, understanding therapy engagement, resilience, stigma, or identity formation.		
Science and engineering	User or practitioner perspectives on new technologies, workplace practices or safety culture.		
Environmental sciences	Local/community responses to conservation, climate adaptation, and environmental justice.		
Business and economics	Workplace culture, employee/consumer perspectives, or organisatio change experiences.		
Education	Teacher/student perspectives on pedagogy, curriculum, assessment or technology use.		

There are several frameworks that can be used to answer the research question for qualitative and mixed method reviews, including PICo, SPICE, SPIDER and PEO.



- **Population:** The participants, groups or community being studied.
- **Interest:** The phenomenon of interest, such as an experience, perspective, process, or issue.
- **Context:** The setting, situation, or environment where the phenomenon occurs.





- **Setting:** The location of the research (e.g., hospital, community, business).
- Perspective: The stakeholders, participants or population.
- **Intervention or phenomenon of interest:** The topic being explored or what is being investigated.
- **Comparison:** The alternative intervention or context.
- **Evaluation:** The outcomes or indicators of success (often qualitative experiences, satisfaction, or effectiveness).



- Sample: The participants or population being studied.
- Phenomenon of Interest: The experience, behaviour, or issue being explored.
- **Design:** The type of qualitative design or method (e.g., interviews, focus groups, ethnography).
- **Evaluation:** The outcomes being assessed (e.g., subjective experiences, views, or perceptions).
- Research type: The kind of research that is included (qualitative, quantitative, or mixed methods).



- Population: The participants or population being studied.
- **Exposure:** The issue, experience, or factor being studied (e.g., condition, situation, or risk factor).
- **Outcome:** The outcomes or phenomena of interest (e.g., experiences, attitudes, or perceptions).



Key features

- Define a focused review question (often using SPIDER, SPICE, PEO, or PICo frameworks).
- Develop a protocol, outline the scope, methods, and planned approach to synthesis. There is no requirement to register a protocol but this could be done using an open access platform such as Figshare.
- Some reviews will use an interactive process to search the literature and others
 will design comprehensive search strategies across databases and grey literature
 sources to capture qualitative studies.
- There is no clear guidance on whether study selection should be undertaken by one or two reviewers.
- Data extraction and synthesis used to capture details on study characteristics, context, participants, methods, and key qualitative findings (themes, quotes) using an interpretive approach and or in-depth coding (e.g., thematic synthesis, metaethnography, framework synthesis).
- Risk of bias assessment used to evaluate the methodological rigour and relevance. This can be assessed using qualitative appraisal tools (e.g., <u>CASP</u>, <u>JBI-QARI</u>).
- ENTREQ provides reporting guidelines to ensure transparency and reproducibility of qualitative reviews.

Limitations

Realist reviews are complex and resource intensive compared to some other review types. They rely heavily on interpretation that increases the risk of introducing reporting biases and can reduce reproducibility. The overall quality of evidence can be inconsistent due to the diversity of evidence (qualitative, quantitative, grey literature). Generating theory can be challenging if the evidence is limited or fragmented. Realist reviews are reliant on detailed textual information which is often absent from primary studies.

Qualitative reviews often lack generalisability. As they aim to provide context-rich insights, their findings often reflect the specific populations, settings, and circumstances studied in the included research. The process of searching for and selecting qualitative studies can be more complex and less rigorous compared with systematic reviews, increasing the risk of missing relevant evidence.



Key takeaways: Qualitative review

- Purpose: To use an interpretive approach to provide insight from the population of interest.
- Research question: Exploring experiences or theme generation.
- Framework: PICo (Population, Interest, Context), SPICE (Setting, Perspective, Intervention or Phenomenon of Interest, Comparison, Evaluation), SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type) and PEO (Population, Exposure, Outcome).
- Common uses: Primarily used to explore experiences and perspectives.
- **Methods:** Structured protocol (optional); iterative or comprehensive search of multiple sources; interpretive and theoretically driven analysis.
- Time & effort: High; may take many months to a year; requires interpretive skills.
- Suitability: Postgraduate and academic researchers.
- Output: Narrative meta-synthesis or summary.

- Figshare: File repository for research data.
- <u>Critical Appraisal Skills Programme</u> (CASP): Checklist to perform critical appraisal of qualitative studies.
- <u>Joanna Briggs Institute Critical Appraisal Tools</u> (JBI- QARI): Checklist for qualitative studies.
- ENTREQ Enhancing transparency in reporting the synthesis of qualitative research: Reporting guidelines for qualitative reviews.



Critical review

Evaluation and critique of existing literature, highlighting biases, gaps, and theoretical issues

Example questions

- What are the flaws of the Monitor and Acceptance Theory of mindfulness?
- Is the use of blood neurofilament light chain an adequate biomarker of neurological disease?
- What are the impacts of greenhouse gas emissions on the climate in North America?
- What are the disadvantages of cathodic protection of steel in soil and concrete?
- What problems are associated with the modern day classroom environment?

What is a critical review?

A critical review rigorously examines existing literature to question accepted theories and challenge prevailing assumptions. It extends beyond a simple summary or narrative description of the literature. It provides a thorough critical assessment of sources, evaluating their strengths, weaknesses, and relevance. It can highlight inconsistencies, patterns and gaps. By offering a deeper analytical perspective, critical reviews identify gaps in current knowledge and highlight opportunities for further research.

The aim of a critical literature review is to question established perspectives, expose neglected or insufficiently explored issues, and pinpoint gaps that warrant further study. It is particularly valuable when seeking to deepen theoretical understanding or suggest new avenues for exploration. Through a systematic and analytical examination of the literature, critical reviews uncover biases, contradictions, and methodological weaknesses in existing research, ensuring that subsequent work is built on a solid, evidence-informed foundation.

Who uses critical reviews and for what purpose?

A critical literature review can be used when there is a need to understand underlying assumptions in the current state of knowledge on a topic. This type of review can help identify gaps in the research. It can be used to drive development of theoretical frameworks.



Applications of critical reviews Critiquing dominant medical paradigms, questioning assumptions in treatment research or policy interventions, challenging traditional nursing models, or highlighting overlooked determinants of health.		
Critically assessing methodologies, standards, or conceptual frameworks in science and engineering.		
Questioning dominant narratives on sustainability, conservation, or climate policy.		
Challenging established economic or management theories, exposing methodological flaws.		
Critiquing pedagogical theories, assessment approaches, or policy assumptions.		

There is no universal framework for critical reviews but a common framework that is used is DAE (Description, Analysis, Evaluation):



- **Description:** Establish the context by describing the main ideas and arguments.
- **Analysis:** Identify arguments and assumptions, and any theoretical frameworks that have been used.
- **Evaluation:** Assess strengths and weaknesses and the significance of the evidence overall.



Key features

- A protocol is not mandatory but is strongly recommended for transparency, reproducibility, and to reduce bias. Can be registered with <u>Open Science Framework</u> or <u>Figshare</u> for example.
- Develop a well-defined research question that will ensure that the review is focused and relevant.
- Uses a comprehensive literature search of multiple databases and other scholarly sources.
- Usually single-reviewer screening to identify relevant studies based on review eligibility criteria.
- Use of critical thinking to evaluate the literature based on study methods, findings, underlying assumptions of theoretical frameworks, strengths and weaknesses. No formal quality assessment required.
- Synthesis of evidence to provide a comprehensive summary of the literature based on integration and interpretation. Identification of trends, patterns and evidence gaps. Provide suggestions for future research.
- May include the development of a theoretical framework grounded in the existing literature. This framework can be used to contextualise the research within the existing body of evidence.
- There are no formal, universally accepted reporting guidelines specifically for critical literature reviews. Some guidance for narrative reviews may be useful (e.g. <u>ENTREQ</u>, <u>SANRA</u>, <u>RAMASES</u>).

Limitations

Critical reviews do not typically follow the rigorous methodological structure of systematic reviews. There is no formal requirement to present methods of the search, synthesis and analysis nor to undertake quality assessment. The interpretative nature of a critical review introduces the risk of selective reporting and subjectivity. This also makes replication difficult. Because this review type is inherently critical, there is the potential for an overemphasis on weaknesses rather than strengths and values of the evidence.



Yey takeaways: Critical review

- **Purpose:** To rigorously evaluate and interpret research in order to challenge assumptions, highlight gaps, and inform future inquiry.
- Research question: Questions that challenge assumptions.
- Framework: DAE (Description, Analysis, Evaluation).
- **Common uses:** Challenging assumptions, identification of research gaps and driving development of theoretical frameworks.
- **Methods:** Research question, comprehensive search and critical analysis. No protocol or quality assessment required.
- Time & effort: Medium to high; may take several months; requires critical thinking skills.
- Suitability: Postgraduate and academic researchers.
- Output: Narrative summary, and/or tabular comparisons.

- Figshare: File repository for research data.
- Open Science Framework (OSF): Register of research protocols.
- <u>ENTREQ</u> Enhancing Transparency in Reporting the Synthesis of Qualitative Research: Reporting guidelines.
- SANRA Scale for the Assessment of Narrative Review Articles.
- RAMESES Realist and Meta-narrative Evidence Syntheses: Evolving Standards: Guidance for theory-driven syntheses that can overlap with critical review approaches.



State-of-the-art review

Comprehensive, forward-looking overview of the most recent and advanced developments in a field

Example questions

- · What are the key interventions used in emergency psychology?
- Which minimally invasive techniques are currently being used in posterior atlanto-axial fixation?
- What is the current situation and future requirements for bridge inspection planning?
- How does plastic compare with alternative materials in the life cycle assessment within the packaging sector?
- How is gamification being used within the secondary education sector?

What is a state-of-the-art review?

State-of-the-art reviews tend to focus on the 'where we are currently' - 'how we got here' - 'where do we go next' approach. These reviews often highlight cutting-edge research and technology, emerging trends, and research frontiers identify promising avenues for further investigation, and clarify how current developments fit into larger theoretical or applied frameworks. They are common in technology, health innovation, climate science, and artificial intelligence. They offer a forward-looking perspective. The purpose is not just to summarise what is known, but to critically evaluate the latest evidence, show where the field currently stands ("the state of the art"), and position it within the broader scholarly or practical context. State-of-the-art reviews are often more narrative and interpretive, with less rigid methodology compared with systematic reviews.

Who uses state-of-the-art reviews and for what purpose?

State-of-the-art reviews are often used in rapidly developing fields of research where there is a need to collate the most current evidence. They may be used to support policy development or white papers, inform research agendas and funding submissions, or promote technological advancements.



Discipline	Applications of state-of-the-art reviews		
Medical and health sciences	Summarising cutting-edge therapies, technologies, or diagnostic methods, reviewing latest trends in nursing care, advanced practice, or technology integration, highlighting recent evidence on emerging public health challenges (e.g., pandemics, obesity, Al in health)		
Social sciences	Discussing newest theories and approaches in sociology, or policy studies, evolving therapy models, cognitive science, or neuropsychology, discussing the most recent debates in philosophy, cultural theory, or history.		
Science & engineering	Presenting the latest technological advances, innovation pathways, or methodological frontiers.		
Environmental sciences	Cutting-edge strategies in climate adaptation, conservation or renewable energy.		
Business & economics	Highlighting new theories of management, leadership, or market dynamics.		
Education	Reviewing innovations in digital learning, assessment, or pedagogy.		

State-of-the-art reviews are not commonly associated with a review framework but SALSA would work well if required. This framework is commonly used in narrative and state-of-the-art reviews. It supports a more structured development of the review whilst allowing flexibility.



- Search: Scoping search to understand existing literature within the demarcation of a timeframe, followed by development of a refined search strategy to identify key studies.
- **AppraisaL:** Critical evaluation of the identified studies to ensure they meet the review eligibility criteria.
- **Synthesis:** Identification of patterns and themes.
- Analysis: Interpretation of the evidence to answer the research question, and identify
 evidence gaps for future research. Interpretation should include insights into the
 subjectivity of the researcher/s.



Key features

- State-of-the-art reviews often lack a clear, consistent methodology or protocol.
- Selective inclusion criteria as evidence is limited to most recent developments.
- Narrative and subjective synthesis, often does not include statistical analysis.
- Reporting often based on themes or conceptual frameworks. Identifies evidence gaps and emerging opportunities.
- No standardised reporting guidelines but <u>SANRA</u> (Scale for the Assessment of Narrative Review Articles) offers a structure for reporting and appraising state-ofthe-art reviews.

Limitations

State-of-the-art reviews are often subject to risk of bias due to lack of reproducible methodology, selective inclusion of studies and personal bias introduced by the authors. The flaws in the selection of studies means that there is a risk that key evidence may be omitted. There is rarely an assessment of the quality or risk of bias of the included literature.

Key takeaways: State-of-the-art review

- **Purpose:** To synthesise the most recent, high-quality literature on a topic illustrating the current state of knowledge, advances in the research area, and evidence gaps.
- Research question: Focused questions on current evidence.
- Framework: SALSA (Search, Appraisal, Synthesis, Analysis).
- **Common uses:** Rapidly developing areas of research. Policy documents, research agendas, grant submissions.
- Methods: No clear methodology, selective searching and subjective interpretation of evidence.
- Time & effort: Low to medium; may take several months; minimal analytical skills required.
- Suitability: Topic experts often in an interdisciplinary group.
- Output: narrative synthesis with selective inclusion and synthesis.

Resource

• SANRA (Scale for the Assessment of Narrative Review Articles)



Bibliometric review

Focus on data visualisation, trends and connections

Example questions

- What are the trends in natural language processing application in psychology over the last 40 years?
- How is ChatGPT used in emergency medicine?
- How has service learning evolved in engineering education?
- What is the inter-connection between horticulture and climate change?
- What are the trends in the use of critical thinking in primary education?

What is a bibliometric review?

A bibliometric review systematically analyses patterns and trends within a body of literature using quantitative methods. Rather than evaluating the content or quality of studies in depth, this approach focuses on the characteristics of publications, such as trends in publication volume, citation patterns and networks, keyword co-occurrence, and institutional or geographical distribution. By applying bibliometric techniques, researchers can map the intellectual structure of a field, identify influential works and authors, and detect emerging research topics. Data for bibliometric reviews are typically drawn from major bibliographic databases (e.g., Web of Science, Scopus, Dimensions, PubMed), and specialised tools (e.g., VOSviewer, Bibliometrix, CiteSpace, Tableau) are used for analysis and data visualisation.

This review type is particularly valuable for providing an objective, high-level overview of a research domain, helping to uncover its evolution, collaboration patterns, and gaps in the literature. Bibliometric reviews are often used to inform future research directions, guide funding priorities, or position new work within the existing scholarly landscape. They are also useful for strategic purposes, such as evaluating institutional research performance or benchmarking against global trends. While bibliometric reviews excel at revealing large-scale patterns, they do not replace more interpretive approaches (like systematic or scoping reviews) that critically appraise and synthesise study findings. Instead, they serve as a complementary method, offering a data-driven lens through which to understand the shape and dynamics of scholarly communication in a given field.

Who uses bibliometric reviews and for what purpose?

Bibliometric reviews are used widely in many disciplines to analyse publication patterns, citation networks, and collaboration trends using quantitative bibliometric methods.



Discipline	Applications of bibliometric reviews		
Бізсірініс	Applications of bibliometric reviews		
Medical and health sciences	Mapping research output on diseases, treatments, or global health priorities, identification of publication trends, influential authors/journals in nursing research, tracking global publication patterns on epidemics, policies, or determinants of health.		
Social sciences	Analysing research impact, trends in education, sociology, political science, mapping citation networks of therapies, cognitive science, or mental health research.		
Science and engineering	Identifying leading research areas, collaboration networks, and technology trends.		
Environmental sciences	Mapping publication growth on climate change, biodiversity, or conservation.		
Business and economics	Tracing influential management theories, financial research impact, or market trends.		
Education	Identifying major themes in pedagogy, curriculum studies, or technology.		

Bibliometric reviews differ from qualitative, scoping, or systematic reviews because they are methods-driven rather than framework-driven. They are typically guided by bibliometric techniques and analytic models.

Key Features

- Development of a review protocol outlining the research question and eligibility criteria. These can be registered (<u>PROSPERO</u>, <u>INPLASY</u>, <u>Open Science Framework</u>, <u>Figshare</u>)
- Searches are mainly limited to publication databases such as Scopus, Dimension,
 PubMed and Web of Science.
- Dual reviewer screening and data extraction.
- Uses metadata (e.g., authors, citations, keywords) rather than study results
- Visualises research landscapes with networks and cluster analyses, maps and graphs generated by specialist software (e.g., VOSviewer, CiteSpace, Bibliometrix (R), or Geph).
- No formal evaluation of risk of bias.
- Reporting guidelines adapt PRISMA 2020.



Limitations

Bibliometric reviews are optimised for collecting publication and citation data but omit the contributions of quality and impact or contributions to theoretical development unless they are part of a systematic review. Bibliometric reviews are subject to bias due to several factors that include author self-citation (inflates citation count) and journal ranking. Bibliometric reviews tend to focus on journal articles and may not capture the breadth of research that may be found in the grey literature, books and conference abstracts. This type of review can be time-consuming and can involve analysis of large datasets. Although bibliometric reviews provide an insight into the volume of evidence, citations and networks, they are not able to glean the impact or influence of evidence on practice or policy.

Key takeaways: Bibliometric review

- Purpose: To analyse publication patterns, citation networks, and collaboration trends.
- Research question: Often focus on trends or relationships.
- Framework: Not applicable.
- Common uses: Visualisation of patterns and networks over time.
- **Methods:** Structured protocol; comprehensive search of multiple sources of publications; narrative and visual synthesis.
- **Time & effort:** Medium to high; may take many months; requires planning, database searching, and data visualisation skills.
- Suitability: Postgraduate and academic researchers.
- Output: Network maps, trend graphs, cluster analyses.

- <u>PROSPERO</u> Prospective register of systematic reviews with a focus in healthcare, public health, crime, justice, social welfare, and education.
- <u>INPLASY</u>: Protocols are usually published within 48 hours.
- Open Science Framework (OSF): Register of research protocols.
- <u>Figshare</u>: File repository for research data.
- PRISMA 2020 (Preferred Reporting Items of Systematic reviews and Meta-Analyses)
 Comprehensive guidance for the preparation and publication of systematic reviews.



Mapping review

Focus on quantity, type, and characteristics of research on a broad topic, identifying gaps and trends

Example questions

- How is technology used in the clinical care of depression?
- What are the commonly used outcomes in social prescribing?
- What areas in software product line variability are addressed and how many articles cover the different areas?
- What evidence is available on policies and interventions related to health and climate change in Australia?
- What is the current understanding of online assessment in secondary education?

What is a mapping review?

Mapping reviews (systematic map) highlight patterns such as the distribution of research across populations, settings, interventions, outcomes, or study designs. This makes them useful for identifying where evidence is concentrated and where significant gaps exist, offering a foundation for future research or developing systematic reviews.

Mapping reviews are especially valuable when a field is large, complex, or fragmented. By systematically searching, screening, and coding studies, they produce a visual or tabular representation of the research landscape, such as evidence maps, bubble charts, or interactive databases. This structured overview helps researchers, funders, and policymakers prioritise areas for further investigation, ensuring resources are directed to where evidence is lacking or underdeveloped.

Who uses mapping reviews and for what purpose?

Mapping reviews provide an organised overview of research areas or interventions. They are commonly used to guide future research by highlighting gaps and trends across multiple disciplines.



Discipline	Applications of mapping reviews		
Medical and health sciences	Synthesising diverse evidence on clinical interventions, patient experiences, and healthcare delivery models. Understanding nursing practices, care models, patient outcomes, combining empirical research with theoretical papers. Integrating epidemiological data with qualitative community perspectives on prevention and health promotion.		
Social sciences	Mapping education interventions, social policies, justice system research, mapping therapy types, mental health outcomes, or resilience interventions.		
Science and engineering	Mapping technologies, standards, or applications across subfields.		
Environmental sciences	Mapping research on conservation methods, climate adaptation or pollution interventions.		
Business and economics	Mapping organisational practices, leadership studies, or economic policies.		
Education	Mapping teaching methods, assessment approaches, or learning technologies.		

Mapping reviews differ from qualitative, scoping, or systematic reviews because they are methods-driven rather than framework-driven. They use a more flexible approach to classify and chart the evidence.

Key Features

- Research questions tend to have a wider scope than a systematic review.
- Often develop a protocol that is registered (on e.g., Figshare).
- Searching aimed to give a broad overview, still aims to be thorough and replicable using multiple databases.
- Study selection is based on pre-specified inclusion/exclusion criteria. May require
 more time to screen articles due to the larger volume of studies from covering a
 wider scope.
- No requirement for quality assessment of included studies.
- Data synthesis takes a visual approach and classification of the available studies
 using tools like heat maps or bubble charts. A high level map visualising the status of
 the field related to the research question is often produced.
- There is no reporting guideline for mapping reviews but a modified PRISMA guideline could be used.



Limitations

Mapping reviews are necessarily time constrained due to the potential for large volumes of studies for screening. They lack the synthesis and analysis found in systematic reviews. Studies are characterised at a broad descriptive level which may result in oversimplification or conceal heterogeneity between studies. Mapping reviews do not usually include a quality or risk of bias assessment.

Key takeaways: mapping review

- **Purpose:** To provide an organised overview of research areas or interventions.
- Research question: Often focus on identification of patterns within research.
- Framework: Not applicable.
- Common uses: Visualisation of patterns.
- **Methods:** Structured protocol; comprehensive search of multiple sources of publications; visual synthesis.
- **Time & effort:** Medium to high; may take many months; requires planning, database searching, and data visualisation skills.
- Suitability: Postgraduate and academic researchers.
- Output: Heat maps, bubble charts.

- Figshare: File repository for research data.
- PRISMA 2020: Reporting guidelines for systematic review publications.



Appendix 1 Review type summary table

Purpose	Key features	Typical outputs	Use
To answer a focused research question using comprehensive and reproducible methods	Predefined protocol, exhaustive search, critical appraisal of studies, often includes meta-analysis	Summary of evidence, pooled effect sizes (if meta-analysis)	When you need high-certainty answers to well-defined clinical or policy questions
To map the extent, range, and nature of research on a topic	Broad question, systematic search, may chart/map results, no formal quality assessment	Descriptive summary, research maps, gap identification	When you need an overview of available research or to identify knowledge gaps
To provide an overview or discussion of a topic based on selected literature	Flexible, non-systematic search, interpretive synthesis	Thematic discussion, expert perspectives	When exploring emerging topics or providing context/background, and for educational or conceptual purposes
To synthesise evidence quickly for time-sensitive decisions	Streamlined methods (e.g., limited search or appraisal)	Summary of key evidence	When timely evidence is needed for urgent policy or practice decisions
To synthesise findings from multiple systematic reviews on a broad topic	Includes only systematic reviews, compares review-level evidence	High-level summary of reviews	When summarising evidence across related interventions or outcomes, often used to inform guidelines and policy
To synthesise research from diverse methodologies (quantitative & qualitative)	Broad inclusion criteria, integrates empirical and theoretical literature	Holistic synthesis including multiple evidence types	When combining diverse evidence to develop new perspectives or frameworks, especially in the nursing discipline
To explain how, why, and under what circumstances interventions work	Focuses on context, mechanism, outcome configurations, theory-driven	Explanatory framework showing how context influences outcomes	When seeking practical, context- specific implementation insights, especially for complex social and policy interventions
	To answer a focused research question using comprehensive and reproducible methods To map the extent, range, and nature of research on a topic To provide an overview or discussion of a topic based on selected literature To synthesise evidence quickly for time-sensitive decisions To synthesise findings from multiple systematic reviews on a broad topic To synthesise research from diverse methodologies (quantitative & qualitative)	To answer a focused research question using comprehensive and reproducible methods To map the extent, range, and nature of research on a topic To provide an overview or discussion of a topic based on selected literature To synthesise evidence quickly for time-sensitive decisions To synthesise findings from multiple systematic reviews on a broad topic To synthesise research from diverse methodologies (quantitative & qualitative) Predefined protocol, exhaustive search, critical appraisal of studies, often includes meta-analysis Broad question, systematic search, may chart/map results, no formal quality assessment Flexible, non-systematic search, interpretive synthesis Streamlined methods (e.g., limited search or appraisal) Includes only systematic reviews, compares review-level evidence Broad inclusion criteria, integrates empirical and theoretical literature Focuses on context, mechanism, outcome configurations, theory-	To answer a focused research question using comprehensive and reproducible methods To map the extent, range, and nature of research on a topic To provide an overview or discussion of a topic based on selected literature To synthesise evidence quickly for time-sensitive decisions To synthesise findings from multiple systematic reviews on a broad topic To synthesise research from diverse methodologies (quantitative & qualitative) Broad inclusion criteria, integrates empirical and theoretical literature Predefined protocol, exhaustive search, of the includes meta-analysis Summary of evidence, pooled effect sizes (if meta-analysis) Descriptive summary, research maps, gap identification Thematic discussion, expert perspectives Streamlined methods (e.g., limited search, interpretive synthesis Summary of key evidence High-level summary of reviews High-level summary of reviews Holistic synthesis including multiple evidence types To explain how, why, and under what circumstances interventions Focuses on context, mechanism, outcome configurations, theory-

To synthesise qualitative research findings	Thematic synthesis, meta- ethnography, or other qualitative methods	Thematic framework, conceptual model	When exploring lived experiences, perspectives, and contextual factors
To challenge existing knowledge and propose new theoretical perspectives	Selective literature search, indepth conceptual analysis	Critical discussion, theoretical model	When questioning assumptions, refining concepts, or developing new theory
To provide the most current overview of a topic, including emerging trends	Selective search focusing on latest and most relevant literature	Critical, forward-looking narrative that highlights future research priorities	When capturing cutting-edge knowledge or recent developments useful for grant applications and policy foresight
To analyse the structure, trends, and influence of research literature	Quantitative analysis of publication data (citations, authorship, keywords)	Citation maps, trend analyses, collaboration networks	When exploring research patterns, impact, and collaborations in a field
To categorise and visualise research activity in a field	Structured search, categorisation of studies by topic, population, intervention, or method	Heat maps, classification tables, bubble charts	When exploring the distribution and characteristics of research without synthesising findings
	findings To challenge existing knowledge and propose new theoretical perspectives To provide the most current overview of a topic, including emerging trends To analyse the structure, trends, and influence of research literature To categorise and visualise	findings ethnography, or other qualitative methods To challenge existing knowledge and propose new theoretical perspectives To provide the most current overview of a topic, including emerging trends Selective literature search, indepth conceptual analysis Selective search focusing on latest and most relevant literature Quantitative analysis of publication data (citations, authorship, keywords) To categorise and visualise research activity in a field Structured search, categorisation of studies by topic, population,	findings ethnography, or other qualitative methods To challenge existing knowledge and propose new theoretical perspectives Selective literature search, indepth conceptual analysis To provide the most current overview of a topic, including emerging trends To analyse the structure, trends, and influence of research literature To categorise and visualise research activity in a field ethnography, or other qualitative model Selective search, indepth conceptual analysis Selective search focusing on latest and most relevant literature Critical, forward-looking narrative that highlights future research priorities Citation maps, trend analyses, collaboration networks Heat maps, classification tables, bubble charts

Top 5 Tips

In this eBook, we have shared the knowledge we have gained through our internal scoping review experts and our community of users about some of the common review types used in research. Here are our top 5 tips for selecting the right review type for your research.

Top 5 tips

- **1. Plan your research question**: A well-defined question sets the foundation for your entire review. Taking time to refine it ensures clarity, focus, and relevance.
- **2. Select a review framework**: Using a structured framework (e.g., PICO, SPIDER, PCC) helps break down your question into key components. This improves transparency and guides your search strategy.
- **3. Prepare a protocol and register/publish where possible**: Developing a protocol, where relevant, outlines your planned methods in advance, reducing bias and increasing credibility. Registering or publishing it promotes transparency and avoids duplication.
- **4. Seek the help of library services and information specialists**: Librarians and information specialists bring expertise in systematic searching and reference management. Their input strengthens your methodology and saves time. It is important that you have selected the right review framework and developed a structured question to maximise the impact of library services support.
- **5. Follow reporting guidelines where available**: Using reporting guidelines (e.g., PRISMA, ENTREQ), where available, ensures your review is thorough and reproducible. This improves quality, consistency, and the likelihood of publication.



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