Types of Literature Reviews

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Outline

- What is Evidence Synthesis
- Types of Literature Reviews
- Choosing your Literature Review
- Planning your review & Getting Started
- Working with a librarian
- Citation Management Tools
- Resources

Objectives

Define two literature review types and understand their methods.

Locate two resources that can assist with identifying the appropriate review for your project.

Identify tools and resources to use while working on your literature review.

Evidence Synthesis

A general term that captures a widening universe of methodologies; aims to reduce biases in the process of selecting studies that will be included in a review

*Uses **transparent** and **reproducible methods** to **exhaustively search** for information on a topic and select studies on a **well-defined** predetermined topic*

Eldermire, E., & Young, S. (2022). World of reviews. In Foster, M.J. & Jewell, S.T. (Eds.) *Piecing together systematic reviews and other evidence syntheses* (pp. 17-30). Rowman & Littlefield.

Traditional reviews	Critical reviews	Overviews	Meta-ethnographies	Meta-synthesis
Metanarrative reviews	Systematic reviews	Integrative reviews	Systematic search and reviews	Mapping reviews
Realist reviews	Umbrella reviews	Rapid reviews	Meta-studies	Scoping reviews
Narrative synthesis	Concept synthesis	Meta-summaries	State of the Art reviews	Mixed Methods reviews
Qualitative SRs	Meta-interpretations	SR with Meta-Analysis	Systematized Reviews	+ More!

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Types of Literature Reviews

Grant, M.J. and Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal, 26,* 91-108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

SALSA Framework

Search	How much do you need to find? How much will you know what to look for?
AppraisaL	Do you need to appraise the literature for quality? How?
Synthesis	What kind of synthesis could this include?
Analysis	What kind of analysis can come out of this?

Rapid Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	**Time**
Assessment of what is already known about a policy or practice issue, by doing a comprehensive search and critically appraise results	Completeness of searching determined by time constraints	Time limited formal quality assessment	Typically, narrative and tabular	Quantities of literature and overall quality/direction of effect of literature	~ 2+ months

Example: Lacey Bryant, S. & Gray, A. Demonstrating the positive impact of information support on patient care in primary care: a rapid literature review. Health Information and Libraries Journal 2006, 23(2), 118–25

Systematized Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
Includes elements of a systematic review while stopping short of a full systematic review; good for post graduate assignments	Comprehensive searching	Can include a quality assessment	Narrative with tabular accompaniment	What is known; limitations in methodology	~ 3+ months

Example: Cornet, R. & de Keizer, N. Forty years of SNOMED: a literature review. BMC Medical Informatics and Decision Making 2008,8(Suppl. 1), S2

Critical Review

	SALSA				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
Aims to demonstrate the writer has done an exhausted search and critically evaluated the quality	Seeks to identify most significant items in the field	No formal quality assessment	Typically narrative	Seeks to identify conceptual contribution to embody existing or derive new theories	~3+ months

Example: Kulviwat, S., Guo, C. & Engchanil, N. Determinants of online information search: acritical review and assessment. Internet Research: Electronic Networking Applications and Policy 2004, 14(3), 245–53

Umbrella Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
Methods to systematically review existing reviews (SRs) on the topic; bring together evidence from mult. reviews into a single document	Identification of component reviews, not primary studies	Quality assessment of studies within those reviews	Graphical and tabular with narrative commentary	What is know; recommendations for practice; what remains unknown; recommendations for future research	~ 4+ months

Example: Seida, J. K., Ospina, M. B., Karkhaneh, M., Hartling, L., Smith, V. & Clark, B. Systematic reviews of psychosocial interventions for autism: an umbrella review. Developmental Medicine and Child Neurology 2009, 51(2), 95–104.

Mixed Studies/Mixed Methods Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
A combination of methods where one significant component is a literature review (can be systematic).	Sensitive search to retrieve all studies	Generic appraisal instrument or separate appraisal process with checklists	Narrative and tables	Look for correlations between characteristics; identify gaps in literature	~ 6+ months

Example: Shepherd, J., Harden, A., Rees, R., Brunton, G., Garcia, J., Oliver, S. & Oakley, A. Young people and healthy eating: a systematic review of research on barriers and facilitators. Health Education Research 2006, 21(2), 239–57.

Scoping Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
Aims to identify nature and extent of research evidence (includes on going research)	Exhaustive search	No formal quality assessment	Tabular with some narrative quality	Characterizes quantity and quality of literature; by study design and other key features;	~ 8+ months

Example: Rookwood, A. C., Abney, M., Butler-Robbins, H. S., Westmark, D. M., & Idoate, R. (2022). Arts-Based Research Methods to Explore Cancer in Indigenous Communities. *AMA journal of ethics*, *24*(7), E563–E575. https://doi.org/10.1001/amajethics.2022.563

Mapping Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
Maps out and categorizes existing literature; commission further reviews or primary research by identifying gaps in the literature	Comprehensive; determined by time/scope restraints	No formal quality assessment	Graphical and tabular	Characterizes quantity and quality of the literature; identify needs for primary or secondary research.	~ 8+ months

Example: Gough, D., Kiwan, D., Sutcliffe, K., Simpson, D. & Houghton, N. A Systematic Map and Synthesis Review of the Effectiveness of Personal Development Planning for Improving Student Learning. London: EPPI-Centre, Social Science Research Unit, 2003

Meta Analysis + Systematic Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
Statistically combines the results of quantitative studies to provide a more precise effect of the results	Exhaustive, systematic review of the literature	Quality assessment may determine inclusion/exclusion or sensitivity.	Graphical and tabular with narrative commentary	Numerical analysis of measures of effect assuming absence of heterogeneity	~12 + months

Example: Johnson TM, Register KA, Schmidt CM, et al. Correlation of the Multi-Biomarker Disease Activity Score With Rheumatoid Arthritis Disease Activity Measures: A Systematic Review and Meta-Analysis. *Arthritis Care Res (Hoboken)*. 2019;71(11):1459-1472. doi:10.1002/acr.23785

Systematic Review

	Methods Used (SALSA)				
Description	**S**earch	**A**ppraisa**L**	**S**ynthesis	**A**nalysis	Time
Seeks to systematically search for, appraise and synthesis evidence, often adhering to guidelines on the conduct of the review	Aims for exhaustive /comprehensive searching	Quality assessment may determine inclusion/exclusions	Narrative with tabular accompaniment	What is known; recommendations for practice; what remains unknown; recommendations for future research	~12+ months

Example: Curry, S. D., Christensen, D. N., Varman, P. M., Harp, K. A., & Jones, D. T. (2023). Systematic Review of CT Angiography in Guiding Management in Pediatric Oropharyngeal Trauma. *The Laryngoscope*, *133*(3), 457–466. https://doi.org/10.1002/lary.30179

Systematic vs Scoping Reviews

Systematic Reviews	Scoping Reviews
Questions are focused; feasibility, effectiveness of a treatment or practice	Questions can be broader in scope; identify characteristics/concepts
Uncover international evidence	Identify the scope of available evidence in a given field
Confirm current practice/address variation/locate new practices	Examine how research is conducted
Identify and investigate conflicting decision	A precursor to a systematic review
Produce statements to guide decision making	To identify and analyze knowledge gaps
Both systematic and scoping reviews include exhaustive searching, aim to be transparent and reproducible, and the data is extracted and presented in a structured way.	

Munn, Z., Peters, M.D.J, Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic review or scoping review approach. *Medical Research Methodology, 18*(143). https://doi.org/10.1186/s12874-018-0611-x

What Review is Right for You?

Previously known as "What Review is Right for You?"

This tool is designed to provide guidance and supporting material to reviewers on methods for the conduct and reporting of knowledge synthesis.

Select the type of review:

Quantitative | Qualitative

Click here to read our article about the development and evaluation of this tool in the Journal of Clinical Epidemiology.

TREAD

Time	How much time do you have?
Resources	What resources/constraints do you have?
Expertise	What expertise do you have?
Audience	What does your audience want out of this review?
Data	How rich and available is the data?

Creating Your Research Question

Why a Research Question?

- For your review to be useful, the audience must be confident that you have answered the question you set out to address and be clear on what you have covered as well as what you chose to omit (and why)

- When you state your research question you set clear boundaries around your topic.

- Defining your research question helps you be consistent throughout your review and to ensure that you deliver what you promised

Booth, A., Sutton, A., Clowes, M., Martyn-St. James, M. (2022). *Systematic approaches to a successful literature review.* (3rd ed.). Sage.

Frameworks

Types of Frameworks

- PICO(TTS)
- SPICE
- SPIDER
- PURPOSE

Framework questions can help clarify and classify concepts in your topic. Many types of frameworks are available, and the best choice of framework depends on your research topic. These are useful tools but are optional and may not work with all components of your question.

Frameworks

Framework	Description	Question	Examples
PICO P: patient/population I: Intervention C: Comparison O: Outcome	Most used in health professions to find information concerning prognoses, diagnoses, and therapies. Used to compare on intervention with another.	In adult patients undergoing third molar extractions, do antibiotics prevent complications such as postoperative infections?	**P**: adult patients undergoing third-molar extractions **I**: antibiotics **C**: no antibiotics **O**: postoperative complications
PURPOSE P: Population U: User R: Responsible Team P: Problem O: Outcome S: Setting E: Effort	Used in clinical settings for Evidence-based practice interventions intended for implementation and incorporation into clinical workflow	Increase PICC line duration without upper extremity DVT for hospitalized adult patients by the end of the calendar year with a nurse-led vascular access team triage using guided ultrasound.	**P**: hospitalized adults **U**: nurses **R**: vascualar access team **P**: difficult IV access **O**: improve IV access rates **S**: general medicine units **E**: One year
SPICE S: Setting P: Perspective/Population I: Intervention C: Comparison E: Evaluation	Can be used to find literature evaluating the outcomes of a service, project, or intervention.	For teenagers in South Carolina, what is the effect of provision of Quit Kits to assist with giving up smoking compared to no support?	**Settings**: South Carolina Perspectives: Teenagers **Intervention**: Quit Kits **Comparison**: Cold turkey/no support **Evaluation**: giving up smoking with Quit Kits vs Cold Turkey/No support
SPIDER S: Sample P/I: Phenomenon of Interest D: Design E: Evaluation R: Research Type	Designed to structure qualitative research questions; focuses on interventions and more on study design, and samples vs populations.	What are the experiences of young parents who attend antenatal education classes?	**Sample**: Young Parents **Phenomenon**: attendance of antenatal education classes **Design**: Interviews **Evaluation**: Experiences **Research Type**: Qual. studies

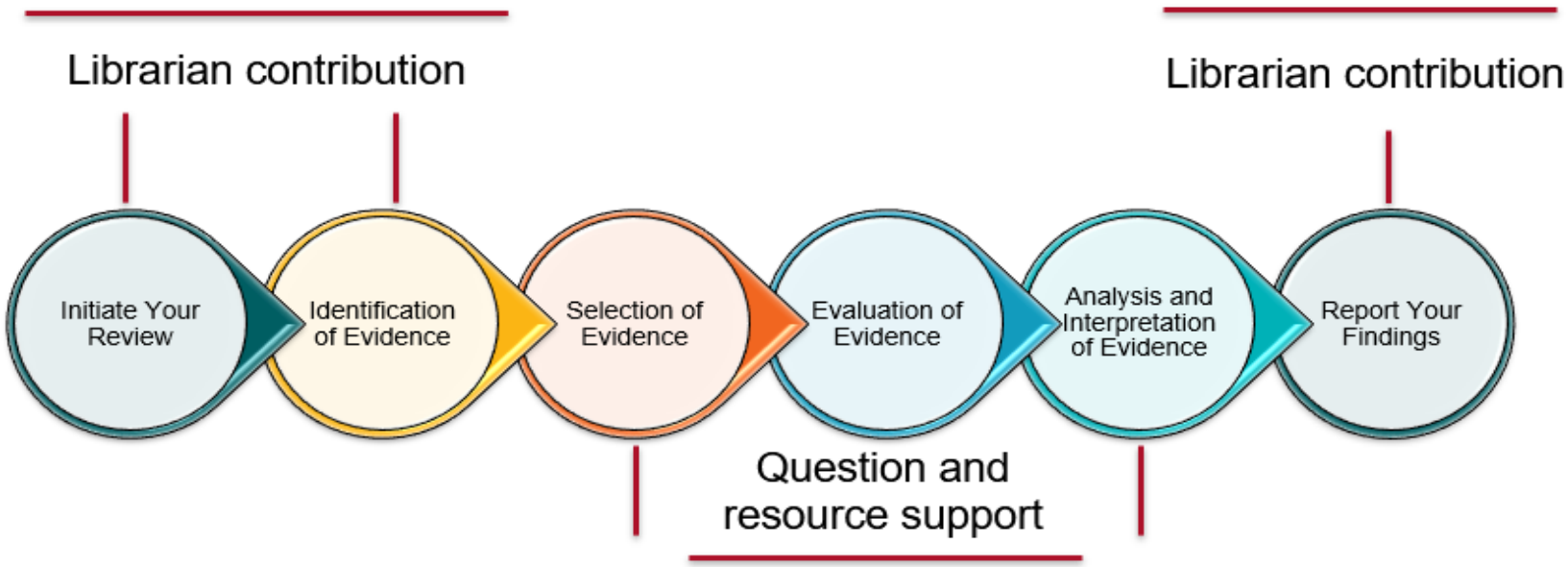
For more examples, visit the Literature Reviews Guide:
https://unmc.libguides.com/literaturereviews/researchquestion

Planning Your Review

Meet with your librarian!

1. Gather your team
2. Define your research question
   - Use tools like PICO(TT), SPIDER, etc., to help create your research question.
   - Systematic Review, Meta-Analysis, Scoping Review? Register your Protocol!
3. Plan your approach to your research and review
   - What do you know about your topic? What's the status of research in this area?
   - Will it be a review of all the literature, or will you focus on recent materials, or specific studies (RCTs, etc.)
4. Search the literature
5. Store and Organize your searches
6. Analyze the materials you found
7. Write

Working with a Librarian @ UNMC



- What review is right for you
- Locate existing studies and/or protocols
- Identifying appropriate databases
- Developing reproducible search strategies
- Exporting and importing results
- Citation management support/training
- Reporting your findings (methods)
- Identifying journals
- Author rights, digital commons, etc.

Citation Management Tools

- EndNote & Zotero allow you to:
  - Store and manage results from a literature search
  - Attach full-text PDFs for note-taking, highlighting, etc.
  - Share libraries (or groups) with colleagues
  - Create quick and easy bibliographies/reference lists
  - Insert in-text citations and create a reference list in Word

EndNote is available from UNMC
Zotero is freely available for download

Screening Tools

Covidence https://www.covidence.org/

- Import citations, works with citation managers
- Screens titles and abstracts
- Upload PDFs for full text screening
- Data extraction
- Populates risk of bias

Covidence has been approved by IT; not available from UNMC. Free version + $$ version (must be purchased by departments/individuals).

Screening Tools

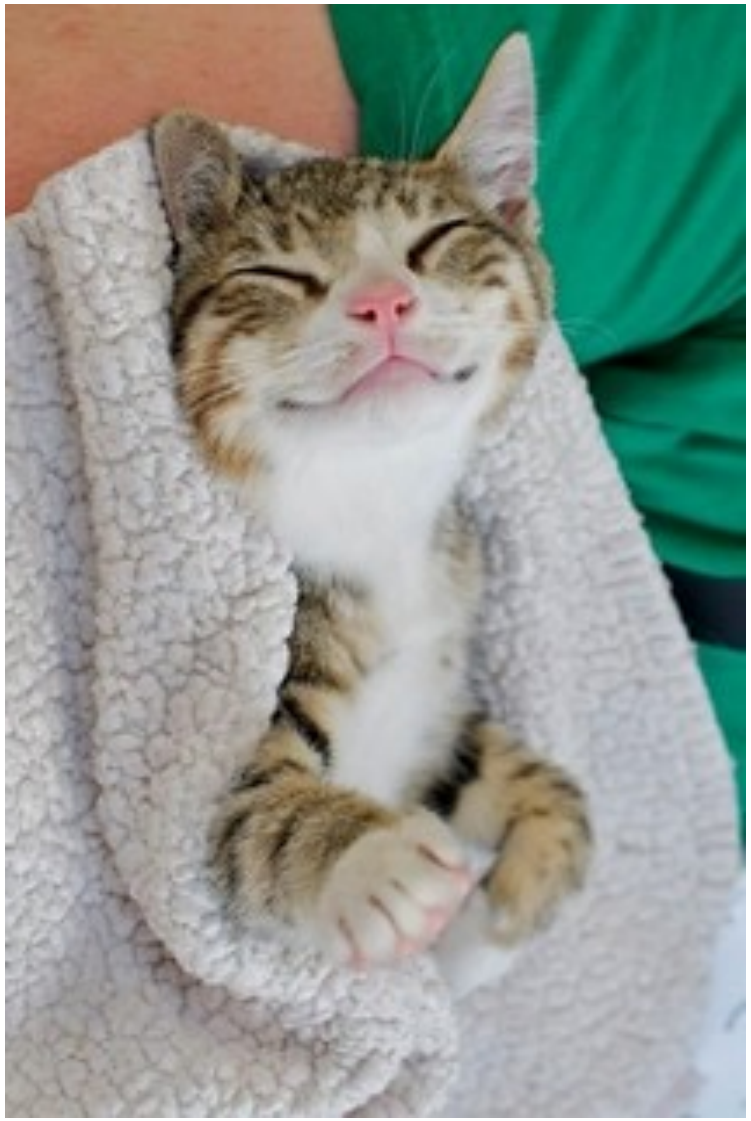
Rayyan: https://www.rayyan.ai/

- Import citations, works with citation managers
- Screens titles and abstracts
- Add PICO elements
- PRISMA (beta)
- Annotate, de-duplicate, and blind review feature

Rayyan has been approved by IT; not available from UNMC. Free version + $ version (must be purchased by departments/individuals).

Resources

- Systematic Review Guide: https://unmc.libguides.com/systematicreview
- Scoping Review: https://unmc.libguides.com/systematicreview/scopingreviews
- Writing Assistance
  - Writing Center: https://www.unmc.edu/library/services/writing.html
  - Grammarly: https://unmc.libguides.com/az.php?a=g&p=1



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Reference List

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