Building a Systematic Review Instruction & Research Support Program: An Instructional Framework

Karleigh Riesen, Lance Simpson, & Alex Boucher
The University of Alabama Libraries
Today’s agenda

• Some context on the state of systematic review publishing.
• What role can research librarians play in the systematic review research process?
• The systematic review instruction & research support program at The University of Alabama Libraries.
• How we’ve collected data on systematic review publishing at The University of Alabama & what we plan to do with that data.
• Future directions of our program.
What is a systematic review?

“A review that uses explicit, systematic methods to collate and synthesize findings of studies that address a clearly formulated question.”

The State of Systematic Review Publishing
Overall trends in SR publications

Trends at The University of Alabama
Calls for Librarian Support
Cochrane Collaboration

Chapter 4: Searching for and selecting studies

• “Review authors should work closely, from the start of the protocol, with an experienced medical/healthcare librarian or information specialist.”

Standards for Systematic Reviews

• Standard 3.1.1: Work with a librarian or other information specialist trained in performing systematic reviews to plan the search strategy.

• Standard 3.1.3: Use an independent librarian or other information specialist to peer review the search strategy.
Campbell Collaboration

2 Information Retrieval Overview

• 2.1 General Issues: “This guide's fundamental premise is that information retrieval is an essential component of the systematic review process, analogous to the data collection phase of a primary research study, and requires the expertise of TSC (trials search coordinator), an information specialist (IS) or a librarian.”

• 2.2 The Trials Search Coordinator (TSC): “If a CG (Campbell coordinating group) is currently without a TCG, authors should seek the guidance of an academic librarian or information specialist.”

3 Source Search

• 3.1 Subject Databases: “Review authors should seek advice from their local librarian for access at their institution”

4 Planning the Search

• 4.1: Trials and Search Coordinators (TSCS) and Academic Librarians: “If the CG is currently without a TSC it is recommended that review authors seek guidance from an academic librarian or information specialist with experience in supporting systematic reviewers”

As Evidenced by the Research

• “Librarians and information specialist participation in systematic reviews (SRs) are correlated with higher quality reported search strategies.”

• “Librarian and information specialist co-authored SRs have significantly better reported search strategies and search documentation than SRs with acknowledged or no participation by librarians or information specialists.”

• “Journal editors and peer reviewers may wish to encourage systematic reviewers to include a librarian or information specialist on the SR team beginning with the construction of the protocol to authorship on the final manuscript.”

Librarian Support
How can a librarian help?

• Determine if a systematic review has been done on the research question
• Brainstorm research questions using various frameworks such as PICO
• Identify keywords and controlled vocabulary
• Identify databases & other sources
• Create comprehensive search strategies
• Assist with literature searching
• Provide guidance on software to assist with the article screening process
• Provide guidance on citation management tools such as Zotero, EndNote, or RefWorks
• Assist with the methodology section of the review
• Librarians may also be able to serve as a partner and co-author on the systematic review research team
Building a Systematic Review Instruction & Research Support Program
The components of the program

• Workshops
• Traditional classroom instruction
• Research consultations
• Co-authorship
• Research guides
• Video tutorials
The Research Process for Systematic Reviews: A Workshop Series

• At least 2-3 workshops per semester.

• Examples:
  • "Getting Started on your Systematic Review."
  • "Basic Search Strategies for Systematic Reviews."
  • "Tools for Systematic Reviews."
  • "Rayyan for Systematic Reviews: An Introduction."
  • "Keywords & Controlled Vocabulary: A Guide to Systematic Review Searching."
Workshops

- All workshops have been online.
- Workshops uploaded to YouTube and shared with registrants & the campus community.
- The demand for these workshops (gauged via YouTube views and workshop registrations) has been surprisingly robust.
Video tutorials

Systematic Literature Reviews
7 videos • 512 views • Last updated on Mar 30, 2022

1. Getting Started on your Systematic Review
   University of Alabama Libraries

2. Basic Search Strategies for Systematic Reviews
   University of Alabama Libraries

3. Tools for Systematic Reviews
   University of Alabama Libraries

4. Creating a Systematic Review Protocol
   University of Alabama Libraries

5. How to Find Systematic Reviews
   University of Alabama Libraries

6. Conducting an Exploratory Search for a Systematic Review
   University of Alabama Libraries

7. Documenting Your Systematic Review Searches with Excel
   University of Alabama Libraries

The University of Alabama
A Research Guide for Systematic Literature Reviews

Systematic Reviews

According to the Cochrane Handbook, section 1.2.2, “a systematic review attempts to collate all empirical evidence that fits pre-specified eligibility criteria in order to answer a specific research question.”

The key characteristics of a systematic review are:

- a clearly stated set of objectives with pre-defined eligibility criteria for studies;
- an explicit, reproducible methodology;
- a systematic search that attempts to identify all studies that would meet the eligibility criteria;
- an assessment of the validity of the findings of the included studies, for example through the assessment of risk of bias; and
- a systematic presentation, and synthesis, of the characteristics and findings of the included studies.


Timeline

A systematic review is a lengthy process. Here is a general timeline for conducting a systematic review:

<table>
<thead>
<tr>
<th>Month</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–2</td>
<td>Preparation of protocol</td>
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Upcoming Workshops

There are no scheduled Systematic Review workshops at this time. Please check back soon.

Contact

Contact the creators of this research guide:
- Alex Boucher
  Research & Instructional Services Librarian for History, Human Environmental Sciences, and Latin American Studies.
- Karleigh Riesen
  Research & Instructional Services Librarian for the Social Sciences.
What we’ve learned

• Campus demand for systematic review support from research librarians is extremely strong.
  • Systematic review support is not just for medical/health sciences librarians.

• There has been a marked increase in the amount of graduate student courses that are requiring “mock” systematic reviews, which has implications for an instruction/research support program.

• Most faculty/grad students simply want to learn about systematic review research (via online workshops, tutorials, research guides, etc.)

• If faculty/grad students want more intensive support from a research librarian, it's important to transparently negotiate your role and state your expectations.
Measuring systematic review publishing on-campus & what to do with that data.
Future Directions: Growing the Program
Understand campus-wide SR research output

• Continue to run bibliometric data analysis to better understand systematic review output on our campus and identify areas for outreach

• Share bibliometric data with liaisons
Develop a community of support

• Provide a Systematic Review workshop for librarians
• Facilitate a curriculum mapping project to identify classes with a systematic review component
• Build a repository of resources that will help librarians support systematic review research
• Coordinate end of semester meetings to check-in on systematic review work that has been taking pace
Assessment

Develop formal assessment for systematic review support services to inform:

- Workshops
- Resources
- Research Consultations
- Programmatic Support
Questions?

Karleigh Riesen: kariesen@ua.edu

Lance Simpson: lsimpson@ua.edu
GitHub Repository of Presentation Data

Alex Boucher: taboucher@ua.edu