Preparing to Do a Systematic Review

Please be prepared to discuss the following questions when you request a faculty librarian’s assistance with a systematic review, or other advanced literature review.

What is your research question?
The librarian needs a short description of the research question or topic you plan to address with the review. In order to create the best possible search strategy, the librarian will ask you about: (1) Your reasons for attempting to address this research question using a systematic review; (2) Existing literature about the research question; (3) Possible variations in the terminology used to discuss the major concepts in your question.

Are there existing systematic reviews or systematic review protocols that address your question?
Before beginning work on your project, it is critical to check to see if another researcher has already addressed your question. The librarian can search several databases and other resources (such as PROSPERO) to ensure that you are not duplicating another researcher’s work.

Do you have a protocol?
Like any well-designed research study, your systematic review should begin by creating a protocol (detailed description of objectives and review methods). The librarian can recommend resources on developing protocols, including existing standards and examples, and can assist with writing the section of the protocol that describes the literature review methods. Creating a written protocol will greatly assist developing the literature searches. Gumberg Library encourages all investigators to register their protocols. ([IOM Standards: 2.6, 2.9; PROSPERO])

Have you assembled your research team?
Systematic reviews are team projects. Many tasks should be performed by more than one person (e.g., screening research results) and some tasks require persons with specialized skills (e.g., data analysis and literature searching). Sharing tasks not only increases your efficiency but also reduces the risk of errors and biases. If you are planning to do a meta-analysis, you should consider including a statistician on your research team. ([IOM Standard: 2.1])

Which databases might you use for this topic?
Because the purpose of a systematic review is to find all studies related to your research question, it is necessary to search more than one database. The librarian will ask which databases you would likely use to research the topic and might recommend additional databases. The librarian will also discuss whether searching grey literature sources might be necessary to identify relevant studies.

Do you have a plan for storing and managing the search results?
Because systematic review literature searches may produce thousands of citations and abstracts, it’s critical to have a plan to manage the results. Your ability to organize and manage results will directly impact the success of your review. The librarian can discuss options for managing your results, but before the review starts it’s important to decide which system(s) you will use. Note: Duquesne University provides current students, faculty, and staff with access to EndNote. ([IOM Standards: 3.3, 3.4, 3.5])

Do you have the time needed to screen the results of comprehensive literature searches?
Systematic review literature searches can produce thousands of citations and abstracts that the research team needs to screen systematically and independently. Review teams need to carefully document the results of both the literature searches and the screening processes. The librarian can recommend tools and software to help with screening. ([IOM Standards: 3.3, 3.4, 3.5])
What is your timetable for the systematic review?
Like other types of studies, systematic reviews require a substantial investment of the review team’s time. It is not uncommon for systematic reviews to take a year or longer. By establishing a timetable for your project, you will help the librarian develop a reasonable schedule for creating searches and delivering the results.

(IOM Standard 2.6.11)

Have you considered where to publish your systematic review?
Not all journals accept systematic reviews. Additionally, some journals have specific requirements for systematic reviews. The librarian can help you identify possible journals for publication.

Are you familiar with the standards for designing, conducting, and reporting systematic reviews?
If not, you should review published standards before meeting with the librarian. If you are interested in conducting another type of review, the librarian might be able to recommend additional relevant standards.

Is this systematic review needed for a grant proposal?
If so, plan to include the librarian as a co-investigator or consultant in your proposal and discuss the appropriate allocation of effort with him/her.

Will the faculty librarian become part of your research team?
Gumberg Library offers two levels of collaboration for systematic reviews:

1. Team member: a librarian who designs and conducts comprehensive literature searches for a systematic review makes a major significant scholarly contribution to the project. For this level of collaboration, Gumberg Library expects that the librarian will write the section of the manuscript that describes the literature search methodology, and that the librarian will be a co-author on the primary manuscript arising from the project.

2. Expert consultant: if you plan to design and conduct your own literature searches, the librarian can provide advice and consultation on search strategies, controlled vocabularies, and database selection. For this level of collaboration, Gumberg Library’s expectation is that the librarian will receive an acknowledgement on the primary manuscript arising from the project.

References


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