Preparing to do a systematic review

If you request assistance from a librarian for your systematic review, you’ll be asked to consider the following questions.

Systematic reviews require a significant amount of time and effort. Librarians will spend many hours preparing and revising search strategies and documenting the search process for the systematic review. We ask the following questions to ensure that essential planning has been done and resources are available for the project before the librarian invests time and effort.

What is your research question?
The question or topic you hope to address needs to be clearly defined. In addition, we need to discuss your rationale for addressing the questions, your awareness of the literature on the question, and terminology used to describe main concepts in your question.

Are there existing systematic reviews or systematic review protocols that answer your question?
Before starting a systematic review, it is good to have a librarian confirm that there are no existing reviews on your topic. A librarian can complete a thorough search of databases to make sure you are not wasting your effort and duplicating the work of others.

Do you have a protocol?
Like any well-designed research study, your systematic review needs a protocol: a detailed description of the objectives and methods in the review. If you do not have a protocol, a librarian can provide you with resources on developing protocols (see example here). It will be difficult to begin the literature search process before a written protocol is available.

Who is your research team?
Many tasks in the systematic review process should be performed by more than one person (e.g. screening search results). Additional team expertise is needed in the areas of how to conduct systematic review, subject knowledge, data analysis, and literature searching. It is probably unrealistic to assume that a single investigator can complete a systematic review. If you are planning to do a meta-analysis, consider adding a biostatistician to the team.

How will you manage the results of comprehensive database searches?
The purpose of the systematic review search is to find all studies that may pertain to the topic. Literature searches in multiple databases may produce thousands of records. You will need to have a system to review and screen results. Librarians typically do not participate in the creation of systems to manage results, nor do librarians review and screen results.

Do you have the time to screen results and complete the review?
It takes a great deal of time for research team members to screen thousands of records. The average systematic review requires eighteen months of work. Establishing a realistic timetable for review completion is helpful.
Where will you publish your systematic review?
Note that not all journals publish systematic reviews, and those that do may have specific submission criteria and requirements. The librarian can help you identify possible publishing outlets upon request.

Are you prepared to update your systematic review?
It is likely that a significant amount of time will pass between the initial literature searches and the point at which you are ready to begin your analysis. For that reason, you should develop a plan for updating the searches to capture new studies that have arisen in the meantime. A plan should also be developed for post-publication updating of the review.

Have you thought about how you will obtain the articles for your review?
In most cases, the search output will be a list of citations rather than the fulltext articles. However, in most cases the librarian will provide you with article fulltext and ordering links to make it easier for you to obtain the complete text for articles that meet the criteria set forth in your protocol.

Is this for a grant proposal?
If so, include the librarian as a co-investigator or consultant on the proposal and discuss with the librarian the appropriate allocation of effort. In addition, consider adding funding for document delivery as the cost of obtaining articles and other materials can be substantial.

How will the librarian be acknowledged for her research contribution?
A librarian who has designed and conducted comprehensive literature searches for a systematic review has made a major scholarly contribution to the project. As such, the librarian should be included as a co-author on the primary manuscript. As co-author, the librarian will be responsible for writing the section of the manuscript that describes the literature search methodology.

Are you aware of the standards for conducting and reporting systematic reviews?
We highly recommend you review:


For further information on systematic reviews see our Systematic Reviews guide at http://libraryguides.missouri.edu/SystematicReviews

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