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Guidelines for Writing a Literature Review: Steps 5-6: Analyzing and Organizing

Note: The following guidelines are modeled after the similarly titled guidelines by Dr. Helen Mongan-Rallis. Both forms are based on Galvan's (2006) text, and **sections of this guide have been quoted directly or with only minor revision from both sources.**

Step 5: *Analyze the Literature.*
Once you have identified and located the articles for your review, you need to analyze and organize them before you begin writing. The follow steps should help:
1. **Overview the articles**. Skim the articles to get an idea of the general purpose and content of the article (focus on the abstract, introduction and first few paragraphs, and the conclusion of each article. As you skim the articles, record the notes on each (see # 3).
2. **Group the articles into categories** (e.g. into topics and subtopics and chronologically within each subtopic). Begin to develop a subject level outline with what studies you've found. This will help you see what you may need to expand or limit.
3. **Take notes**.
    1. *Decide on the format in which you will take notes as you read the articles*. You can do this using a word processor, a data base program, an Excel spreadsheet, or the "old-fashioned" way of using note cards. Just be consistent.
    2. *Define key terms*. Note differences in the ways key terms are defined.
    3. *Pay attention to numbers*. Note key statistics that you may want to use in the introduction to your review.
    4. *Select useful quotations that you may want to include*. Important*:* If you copy the exact words from an article, be sure to cite the page number. You will need this if you decide to use the quotation when you write your review (direct quotations must always be accompanied by page numbers in APA). To ensure that you have quoted accurately (and to save time in note taking), use Edit/Copy/Paste in Microsoft Word or Select/Copy Image (or Text, depending on version) to Clipboard in Adobe. Note: although you may collect a large number of quotations during the note taking phase of your review, when you write the review, use quotations very sparingly. A good rule to follow is to quote only when some key meaning would be lost in translation if you were to paraphrase the original author's words.
    5. *Note emphases, strengths, and weaknesses.* Since different research studies focus on different aspects of the issue under study, each article that you read will have different emphases, strengths, and weaknesses. Your role as a reviewer *is* to evaluate what you read, so that your review is not a mere description of different articles, but rather a critical analysis that makes sense of the collection of articles that you are reviewing. Critique the research methodologies used in the studies, and distinguish between assertions (author/s opinion) and actual research findings.
    6. *Identify major trends or patterns*. As you read a range of articles on your topic, you should make note of trends and patterns over time as reported in the literature. This step requires you to synthesize and make sense of what you read, since these patterns and trends may not be immediately obvious but become apparent to you after reviewing numerous articles. Your analysis can make generalizations across a majority of studies, but should also note inconsistencies.

7. *Identify gaps in the literature, and reflect on why these might exist.* This idea is based on the understanding/s that you have gained by reading literature on your topic. These gaps will be important to address as you plan and write your review.
8. *Identify relationships among studies.* Note relationships among studies, such as which led to subsequent research in the same area. You may notice that studies fall into distinct categories (that you see emerging or that are already discussed in the literature). Keep notes so that you can address these relationships in your review and discuss relevant studies using these categories as a framework.
9. *Keep your review focused on your topic*. Make sure that the articles you find are relevant and directly related to your topic. As you take notes, record which specific aspects of the article you are reading are applicable. If you are using an electronic form of note taking, you might note these descriptors in a separate field (e.g. in Microsoft Word using an outline format and filling in studies underneath each heading or in Excel have a separate column for each descriptor).
10. *Evaluate your references for currency and coverage.* Although you can always find more articles on your topic, you have to decide at what point you are finished with collecting new references so that you can begin writing. However, before you begin, you must evaluate your references list to ensure that it is up to date and has reported the most current work. Typically a review will cover the last five years, but should also refer to any landmark studies prior to this time if they have significance in shaping the direction of the field. If you include studies prior to the past five years that are **not** landmark studies, you should defend why you have chosen these rather than more current ones.

Step 6: *Synthesize the Literature Prior to Writing the Review.*
Using your notes, develop a subject outline (a few main headings, with subheadings underneath) of your final review. The following are the key steps as outlined by Galvan (2006, pp. 71-79):
1. *Consider your purpose before beginning to write*. In the case of this introductory literature review, your initial purpose is to provide an overview of the topic that is of interest to you, demonstrating your understanding of key works and concepts. You are also developing skills in reviewing and writing, on which you will build in subsequent courses within your program. This literature review is not intended to comprehensively cover your topic, but should give you a basis for a more detailed future study.
2. *Consider how you reassemble your notes*. Plan how you will organize your findings into a unique analysis of the picture that you have captured in your notes. **Important:** A literature review is **not** series of annotations (like an annotated bibliography). Galvan (2006, p. 72) describes the difference between an annotated bibliography and a literature review as, "like describing trees when you really should be describing a forest. In the case of a literature review, you are really creating a new forest, which you will build by using the trees you found in the literature you read."
3. *Create a topic outline that traces your argument*. For each topic, explain to the reader your line of argument; then explain and justify it. A few ways to organize topics include:
   1. Differences among studies.
   2. Obvious gaps or areas needing more research.
   3. Relevant theories.
   4. A discussion of how individual studies relate to and advance theory.
   5. Conclusions and implications.
   6. Specific directions for future research near the end of the review.