"How to" Guideline series is coordinated by Helen Mongan-Rallis of the Education Department at the University of Minnesota Duluth. If you have any questions, comments, or suggestions to improve these guidelines please me at e-mail hrallis@d.umn.edu.

Guidelines for writing a literature review

by Helen Mongan-Rallis. Last updated: November 17, 2006

[Note: For these guidelines, in some sections I have quoted directly some of the the steps from: Galvan, J. (2006). Writing literature reviews: a guide for students of the behavioral sciences (3rd ed.). Glendale, CA: Pyrczak Publishing.]

What is a literature review?

A literature review is not an annotated bibliography in which you summarize briefly each article that you have reviewed. While a summary of the what you have read is contained within the literature review, it goes well beyond merely summarizing professional literature. It focuses on a specific topic of interest to you and includes a critical analysis of the relationship among different works, and relating this research to your work. It may be written as a stand-alone paper or to provide a theoretical framework and rationale for a research study (such as a thesis or dissertation).

Step-by-step guide

These guidelines are adapted primarily from Galvan (2006). Galvan outlines a very clear, step-by-step approach that is very useful to use as you write your review. I have integrated some other tips within this guide, particularly in suggesting different technology tools that you might want to consider in helping you organize your review. In the sections from Step 6-9 what I have included is the outline of those steps exactly as described by Galvan. I also provide links at the end of this guide to resources that you should use in order to search the literature and as you write your review.

In addition to using the step-by-step guide that I have provided below, I also recommend that you (a) locate examples of literature reviews in your field of study and skim over these to get a feel for what a literature review is and how these are written (I have also provided links to a couple of examples at the end of these guidelines (b) read over other guides to writing literature reviews so that you see different perspectives and approaches: Some examples are:

2. How to Write a Literature Review: University of California, Santa Cruz University Library).
3. Information Fluency - Literature Review: Washington & Lee University
5. Writing up research; using the literature. Language Center, Asian Institute of Technology (Thailand).
6. Selected Links to Resources on Writing a Literature Review

Step 1: Review APA guidelines

Read through the links provided below on APA guidelines so that you become familiar with the common core elements of how to write in APA style: in particular, pay attention to general document guidelines (e.g. font,
margins, spacing), title page, abstract, body, text citations, quotations.

**Step 2: Decide on a topic**

It will help you considerably if your topic for your literature review is the one on which you intend to do your final M.Ed. project, or is in some way related to the topic of your final project. However, you may pick any scholarly topic.

**Step 3: Identify the literature that you will review:**

1. Familiarize yourself with online databases (see UMD library resource links below for help with this), identifying relevant databases in your field of study.
2. Using relevant databases, search for literature sources using Google Scholar and also searching using Furl (search all sources, including the Furl accounts of other Furl members). Some tips for identifying suitable literature and narrowing your search:
   1. Start with a general descriptor from the database thesaurus or one that you know is already a well defined descriptor based on past work that you have done in this field. You will need to experiment with different searches, such as limiting your search to descriptors that appear only in the document titles, or in both the document title and in the abstract.
   2. Redefine your topic if needed: as you search you will quickly find out if the topic that you are reviewing is too broad. Try to narrow it to a specific area of interest within the broad area that you have chosen (remember: this is merely an introductory literature review for Educ 7001). It is a good idea, as part of your literature search, to look for existing literature reviews that have already been written on this topic.
   3. As part of your search, be sure to identify landmark or classic studies and theorists as these provide you with a framework/context for your study.
3. Import your references into your RefWorks account (see: Refworks Import Directions for guide on how to do this from different databases). You can also enter references manually into RefWorks if you need to.

**Step 4: Analyze the literature**

Once you have identified and located the articles for your review, you need to analyze them and organize them before you begin writing:

1. **Overview the articles**: Skim the articles to get an idea of the general purpose and content of the article (focus your reading here on the abstract, introduction and first few paragraphs, the conclusion of each article. Tip: as you skim the articles, you may want to record the notes that you take on each directly into RefWorks in the box for User 1. You can take notes onto note cards or into a word processing document instead or as well as using RefWorks, but having your notes in RefWorks makes it easy to organize your notes later.
2. **Group the articles into categories** (e.g. into topics and subtopics and chronologically within each subtopic). Once again, it's useful to enter this information into your RefWorks record. You can record the topics in the same box as before (User 1) or use User 2 box for the topic(s) under which you have chosen to place this article.
3. **Take notes**:
   1. Decide on the format in which you will take notes as you read the articles (as mentioned above, you can do this in RefWorks. You can also do this using a Word Processor, or a concept mapping program like Inspiration (free 30 trial download), a data base program (e.g. Access or
File Maker Pro), in an Excel spreadsheet, or the "old-fashioned" way of using note cards. Be consistent in how you record notes.

2. Define key terms: look for differences in the way key terms are defined (note these differences).

3. Note key statistics that you may want to use in the introduction to your review.

4. Select useful quotes that you may want to include in your review. Important: If you copy the exact words from an article, be sure to cite the page number as you will need this should you decide to use the quote when you write your review (as direct quotes must always be accompanied by page references). To ensure that you have quoted accurately (and to save time in note taking), if you are accessing the article in a format that allows this, you can copy and paste using your computer "edit --> copy --> paste" functions. Note: although you may collect a large number of quotes during the note taking phase of your review, when you write the review, use quotes very sparingly. The rule I follow is to quote only when some key meaning would be lost in translation if I were to paraphrase the original author's words, or if using the original words adds special emphasis to a point that I am making.

5. Note emphases, strengths & weaknesses: Since different research studies focus on different aspects of the issue being studied, 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 (the author’s opinion) and actual research findings (derived from empirical evidence).

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 spelled out in the literature, but rather become apparent to you as you review the big picture that has emerged over time. Your analysis can make generalizations across a majority of studies, but should also note inconsistencies across studies and over time.

7. Identify gaps in the literature, and reflect on why these might exist (based on the understandings that you have gained by reading literature in this field of study). These gaps will be important for you to address as you plan and write your review.

8. Identify relationships among studies: note relationships among studies, such as which studies were landmark ones that led to subsequent studies in the same area. You may also note that studies fall into different categories (categories that you see emerging or ones that are already discussed in the literature). When you write your review, you should address these relationships and different categories and discuss relevant studies using this 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 relevant to your topic (as you read you will come up with key descriptors that you can record in your notes that will help you organize your findings when you come to write up your review). If you are using an electronic form of note taking, you might note these descriptors in a separate field (e.g. in RefWorks, put these under User 2 or User 3; in Excel have a separate column for each descriptor; if you use Inspiration, you might attach a separate note for key descriptors.

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 resources so that you can focus on writing up your findings. However, before you begin writing, you must evaluate your reference 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 5: Summarize the literature in table or concept map format

1. Galvan (2006) recommends building tables as a key way to help you overview, organize, and summarize your findings, and suggests that including one or more of the tables that you create may be helpful in your literature review. If you do include tables as part of your review each must be accompanied by an analysis that summarizes, interprets and synthesizes the literature that you have charted in the table. You can plan your table or do the entire summary chart of your literature using a concept map (such as using Inspiration)
   1. You can create the table using the table feature within Microsoft Word, or can create it initially in Excel and then copy and paste/import the Excel sheet into Word once you have completed the table in Excel. The advantage of using Excel is that it enables you to sort your findings according to a variety of factors (e.g. sort by date, and then by author; sort by methodology and then date)
   2. Examples of tables that may be relevant to your review:
      1. Definitions of key terms and concepts.
      2. Research methods
      3. Summary of research results

Step 6: Synthesize the literature prior to writing your review

Using the notes that you have taken and summary tables, develop an outline of your final review. The following are the key steps as outlined by Galvan (2006: 71-79)

1. Consider your purpose and voice before beginning to write. In the case of this Educ 7001 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 within your chosen area of focus. You are also developing skills in reviewing and writing, to provide a foundation on which you will build in subsequent courses within your M.Ed. and ultimately in your final project. In your final project your literature review should demonstrate your command of your field of study and/or establishing context for a study that you have done.

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 a series of annotations (like an annotated bibliography). Galvan (2006:72) captures the difference between an annotated bibliography and a literature review very well: "...in essence, 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: first explain to the reader your line or argument (or thesis); then your narrative that follows should explain and justify your line of argument. You may find the program Inspiration useful in mapping out your argument (and once you have created this in a concept map form, Inspiration enables you to convert this to a text outline merely by clicking on the "outline" button). This can then be exported into a Microsoft Word document.

4. Reorganize your notes according to the path of your argument

5. Within each topic heading, note differences among studies.

6. Within each topic heading, look for obvious gaps or areas needing more research.

7. Plan to describe relevant theories.
8. Plan to discuss how individual studies relate to and advance theory
9. Plan to summarize periodically and, again near the end of the review
10. Plan to present conclusions and implications
11. Plan to suggest specific directions for future research near the end of the review
12. Flesh out your outline with details from your analysis

Step 7: Writing the review (Galvan, 2006: 81-90)

1. Identify the broad problem area, but avoid global statements
2. Early in the review, indicate why the topic being reviewed is important
3. Distinguish between research finding and other sources of information
4. Indicate why certain studies are important
5. If you are commenting on the timeliness of a topic, be specific in describing the time frame
6. If citing a classic or landmark study, identify it as such
7. If a landmark study was replicated, mention that and indicate the results of the replication
8. Discuss other literature reviews on your topic
9. Refer the reader to other reviews on issues that you will not be discussing in details
10. Justify comments such as, "no studies were found."
11. Avoid long lists of nonspecific references
12. If the results of previous studies are inconsistent or widely varying, cite them separately
13. Cite all relevant references in the review section of thesis, dissertation, or journal article

Step 8: Developing a coherent essay (Galvan, 2006: 91-96)

1. If your review is long, provide an overview near the beginning of the review
2. Near the beginning of a review, state explicitly what will and will not be covered
3. Specify your point of view early in the review: this serves as the thesis statement of the review.
4. Aim for a clear and cohesive essay that integrates the key details of the literature and communicates your point of view (a literature is not a series of annotated articles).
5. Use subheadings, especially in long reviews
6. Use transitions to help trace your argument
7. If your topic teaches across disciplines, consider reviewing studies from each discipline separately
8. Write a conclusion for the end of the review: Provide closure so that the path of the argument ends with a conclusion of some kind. How you end the review, however, will depend on your reason for writing it. If the review was written to stand alone, as is the case of a term paper or a review article for publication, the conclusion needs to make clear how the material in the body of the review has supported the assertion or proposition presented in the introduction. On the other hand, a review in a thesis, dissertation, or journal article presenting original research usually leads to the research questions that will be addressed.
9. Check the flow of your argument for coherence.

Reference:


Resources
1. **UMD & library resources and links:**
   1. **M. Ed. Graduate Programs Research Resources.** Includes links to guidelines & resources on capstone project, proposal guidelines and examples, Internet resources, APA resources, general writing guidance, and human subjects application
   2. **UMD library: Master of Education Research Guide:** Provides information and links to: Indexes & Databases for Locating Journal Citations; RefWorks; Finding Journal Articles; Finding Books; APA Style Manual; Distance Education Services; Library Services
   3. **UMD library research tools:** includes links to
   4. **Refworks Import Directions:** Links to step-by-step directions on how to important to Refworks from different databases

2. **Writing guidelines:**
   1. **Purdue OWL (Online Writing Lab):** A user-friendly writing lab that parallels with the 5th edition APA manual.

3. **APA guidelines:**
   1. **APA Style Essentials:** overview of common core of elements of APA style.
   2. **APA Research Style Crib Sheet** is a summary of rules for using APA style.
   3. **Citing References APA Style (5th ed.):** provides common examples of the APA style for citing source materials
   4. **APA Style for Electronic Media and URL's:** commonly asked questions regarding how to cite electronic media
   5. **Lesley University APA guide:** APA online manual. Provides guidelines, formatting, examples, and how to make bibliographies.

4. **Examples of literature reviews:**
   3. Achacosa, M. (2003). *Evaluating technology and instruction: literature review and recommendations*. Austin, TX: The University of Texas at Austin, Division of Instructional Innovation and Assessment. *(download pdf)*. [The literature review begins on pg. 7]

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