

Chapter 8

Synthesizing Literature Prior to Writing a Review

At this point, you should have read and analyzed a collection of research articles and prepared detailed notes, possibly including summary tables (see Chapter 7). You should now begin to synthesize these notes and tabled material into a new whole, the sum of which will become your literature review. In other words, you are now ready to begin the process of *writing* a literature review. This chapter will help you to develop an important product: a detailed writing outline.

✓ **Guideline 1: Consider your purpose and voice before beginning to write.**

Begin by asking yourself what your purpose is in writing a literature review. Are you trying to convince your professor that you have expended sufficient effort in preparing a term paper for your class? Are you trying to demonstrate your command of a field of study in a thesis or dissertation? Or is your purpose to establish a context for a study you hope will be published in a journal? Each of these scenarios will result in a different type of final product, in part because of the differences in the writer's purpose, but also because of differences in readers' expectations. Review the descriptions of three types of literature reviews in Chapter 2.

After you establish your purpose and have considered your audience, decide on an appropriate *voice* (or style of writing) for your manuscript. A writer's voice in a literature review should be formal because that is what the academic context dictates. The traditional *voice* in scientific writing requires that the writer de-emphasize himself or herself in order to focus readers' attention on the content. In Example 8.1.1, the writer's *self* is too much in evidence; it distracts the reader from the content of the statement. Example 8.1.2 is superior because it focuses on the content.

Example 8.1.1¹

Improper voice for academic writing:

In this review, I will show that the literature on treating juvenile murderers is sparse and suffers from the same problems as the general literature on juvenile homicide (Benedek, Cornell, & Staresina, 1989; Myers, 1992) and violent juvenile delinquents (Tate, Reppucci, & Mulvery, 1995). Unfortunately, I have found that most of the treatment results are based on clinical case reports of a few cases referred to the author for evaluation and/or treatment (e.g., see Agee, 1979...).

¹ This is a hypothetical example based on Example 8.1.2.

Example 8.1.2²

Suitable voice for academic writing:

The literature on treating juvenile murderers is sparse and suffers from the same problems as the general literature on juvenile homicide (Benedek, Cornell, & Staresina, 1989; Myers, 1992) and violent juvenile delinquents (Tate, Reppucci, & Mulvery, 1995). Most of the treatment results are based on clinical case reports of a few cases referred to the author for evaluation and/or treatment (e.g., see Agee, 1979...).

Notice that academic writers tend to avoid using the first person. Instead, they let the material, including statistics and theories, speak for itself. This is not to say that the first person should never be used. However, it is traditional to use it exceedingly sparingly.

✓ **Guideline 2: Consider how to reassemble your notes.**

Now that you have established the purpose for writing your review, identified your audience, and established your voice, you should reevaluate your notes to determine how the pieces you have described will be reassembled. At the outset, you should recognize that it is almost always unacceptable in writing a literature review to present only a series of annotations of research studies. In essence, that would be like describing trees when you really should be describing a forest. In a literature review, you are creating a unique new forest, which you will build by using the trees you found in the literature you have read. In order to build this new whole, you should consider how the pieces relate to one another while preparing a topic outline, which is described in more detail in the next guideline.

✓ **Guideline 3: Create a topic outline that traces your argument.**

Like any other kind of essay, the review should *first* establish for the reader the line of argumentation you will follow (this is called the *thesis*). This can be stated in the form of an assertion, a contention, or a proposition; *then*, you should develop a traceable narrative that demonstrates that the line of argumentation is worthwhile and justified. This means that you should have formed judgments about the topic based on the analysis and synthesis of the literature you are reviewing.

The topic outline should be designed as a road map of the argument, which is illustrated in Example 8.3.1. Notice that it starts with an assertion (that there is a severe shortage of donor organs, which will be substantiated with statistics, and that the review will be delimited to the psychological components of the decision to donate). This introduction is followed by a systematic review of the relevant areas of the research literature (points II and III in the outline), followed by a discussion of methodological issues in the relevant research (point IV). It ends with a summary, implications, and a discussion of

² Heide, K. M., & Solomon, E. P. (2003). Treating today's juvenile homicide offenders. *Youth Violence and Juvenile Justice, 1*, 5–31.

suggestions for future research and conclusions that refer back to the introduction (point I).

Note that the authors of Example 8.3.1 have chosen to discuss weaknesses in research methodology in a separate section (point IV in the outline). Using a separate section for such a discussion is especially appropriate when all or many of the studies suffer from the same weaknesses. If different studies have different weaknesses, it is usually best to refer to the weaknesses when each study is cited (as opposed to discussing them in a separate section of the literature review).

Because the following outline will be referred to at various points throughout the rest of this chapter, please take a moment to examine it carefully. Place a flag on this page or bookmark it for easy reference to the outline when you are referred to it later.

Example 8.3.1³

Sample topic outline:

Topic: Psychological Aspects of Organ Donation: Individual and Next-of-Kin Donation Decisions

I. Introduction

- A. Establish importance of the topic (cite statistics on scarcity of organs).
- B. Delimit the review to psychological components of decisions.
- C. Describe organization of the paper, indicating that the remaining topics in the outline will be discussed.

II. Individual decisions regarding posthumous organ donation

- A. Beliefs about organ donation.
- B. Attitudes toward donating.
- C. Stated willingness to donate.
- D. Summary of research on individual decisions.

III. Next-of-kin consent decisions

- A. Beliefs about donating others' organs.
- B. Attitudes toward next-of-kin donations.
- C. Summary of research on next-of-kin consent decisions.

IV. Methodological issues and directions for future research

- A. Improvement in attitude measures and measurement strategy.
- B. Greater differentiation by type of donation.
- C. Stronger theoretical emphasis.
- D. Greater interdisciplinary focus.

V. Summary, Implications, and Discussion

- A. Summary of points I–IV.
- B. Need well-developed theoretical models of attitudes and decision making.
- C. Current survey data limited in scope and application points to the need for more sophisticated research in the future.
- D. Need more use of sophisticated data-analysis techniques.
- E. Conclusions: Psychology can draw from various subdisciplines for an understanding of donation decisions so that intervention strategies can be identified. Desperately need to increase the supply of donor organs.

³ The outline is based on the work of Radicki, C. M., & Jaccard, J. (1997). Psychological aspects of organ donation: A critical review and synthesis of individual and next-of-kin donation decisions. *Health Psychology, 16*, 183–195.

✓ **Guideline 4: Reorganize your notes according to the path of your argument.**

The topic outline described in the previous guideline describes the path of the authors' argument. The next step is to reorganize the notes according to the outline. Begin by coding the notes with references to the appropriate places in the outline. For example, on the actual note cards, write a "I." beside notations that cite statistics on the scarcity of donated organs, a "II." beside notations that deal with individual decisions about organ donations, a "III." beside notations that deal with next-of-kin decisions, and a "IV" beside notations that pertain to methodological issues. Then, return to the topic outline and indicate the specific references to particular studies. For example, if Doe and Smith (2005) cite statistics on the scarcity of donated organs, write their names on the outline to the right of Topic I.

✓ **Guideline 5: Within each topic heading, note differences among studies.**

The next step is to note on your topic outline the differences in content among studies. Based on any differences, you may want to consider whether it is possible to group the articles into subtopics. For instance, for "Beliefs about organ donation" (point II.A. in Example 8.3.1), the literature can be grouped into the five subcategories shown in Example 8.5.1.

Example 8.5.1

Additional subtopics for point II.A. in Example 8.3.1:

1. Religious beliefs
2. Cultural beliefs
3. Knowledge (i.e., beliefs based on "facts" people have gathered from a variety of sources)
4. Altruistic beliefs
5. Normative beliefs (i.e., beliefs based on perceptions of what is acceptable within a particular social group)

These would become subtopics under point II.A. ("Beliefs about organ donation") in the topic outline. In other words, your outline will become more detailed as you identify additional subtopics.

The other type of difference you will want to consider is the consistency of results from study to study. For instance, the reviewers on whose work Example 8.3.1 is based found three articles suggesting that there are cultural obstacles that reduce the number of organ donations among Hispanics, while one other article indicated a willingness to donate and a high level of awareness about transplantation issues among this group. When you discuss such discrepancies, assist your reader by providing relevant information about the research, with an eye to identifying possible explanations for the differences. Were the first three articles older and the last one more current? Did the first three use a different methodology for collecting the data (e.g., did those with the negative results ex-

amine hospital records while the one with a positive result used self-report questionnaires)? Noting differences such as these may provide you with important issues to discuss when you are writing your literature review.

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

In the full review based on the topic outline in Example 8.3.1, the reviewers noted that whereas much cross-cultural research has been conducted on African Americans, Asian Americans, and Hispanics, only a few studies have focused on Native Americans. Thus, any conclusions may not apply to the latter group. In addition, this points to an area that might be recommended for consideration in the planning of future research.

✓ **Guideline 7: Plan to briefly describe relevant theories.**

The importance of theoretical literature is discussed in Chapter 1. You should plan to briefly describe each theory. Example 8.7.1 illustrates a brief description of social comparison theory. Note that the authors start with a summary of the original theory and then proceed to discuss how the theory has been modified over time. This organization helps readers to more fully understand the theory.

Example 8.7.1⁴

Brief definition of a relevant theory:

Festinger's (1954) social comparison theory asserts that (1) individuals have a drive to evaluate their opinions and abilities; (2) in the absence of objective, nonsocial criteria, individuals engage in social comparison (i.e., they compare their opinions and abilities to other individuals); and (3) whenever possible, social comparisons are made with similar others.

Since its original formulation, social comparison theory has undergone a number of revisions. First, it is now acknowledged that unsought comparisons may occur and that the referent point used in the comparison process may be an individual dissimilar to oneself (Martin & Kennedy, 1993). Second, social comparison also may occur on dimensions such as physical appearance....

✓ **Guideline 8: Plan to discuss how individual studies relate to and advance theory.**

You should consider how individual studies, which are often narrow, help to define, illustrate, or advance theoretical notions. Often, researchers will point out how their studies relate to theory, which will help you in your considerations of this matter. In your topic outline, specify that one or more theories will be discussed in your literature review, as was done in point V.B. in Example 8.3.1, which indicates that the reviewer will discuss the need for well-developed theoretical models.

⁴ Morrison, T. G., Kalin, R., & Morrison, M. A. (2004). Body-image evaluation and body-image investment among adolescents: A test of sociocultural and social comparison theories. *Adolescence*, 39, 571–592.

If there are competing theories in your area, plan to discuss the extent to which the literature you have reviewed supports each of them, keeping in mind that an inconsistency between the results of a study and a prediction based on theory may result from *either* imperfections in the theoretical model *or* imperfections in the research methodology used in the study.

✓ **Guideline 9: Plan to summarize periodically and again near the end of the review.**

It is helpful to summarize the inferences, generalizations, and/or conclusions you have drawn from your review of the literature in stages. For instance, the outline in Example 8.3.1 calls for summaries at two intermediate points in the literature review (i.e., points II.D. and III.C.). Long, complex topics within a literature review often deserve their own separate summaries. These summaries help readers to understand the direction the author is taking and invite readers to pause, think about, and internalize difficult material.

You have probably already noticed that the last main topic (Topic V.) in Example 8.3.1 calls for a summary of all the material that preceded it. It is usually appropriate to start the last section of a long review with a summary of the main points already covered. This shows readers what the writer views as the major points and sets the stage for a discussion of the writer's conclusions and any implications he or she has drawn. In a very short literature review, a summary may not be needed.

✓ **Guideline 10: Plan to present conclusions and implications.**

Note that a *conclusion* is a statement about the state of the knowledge on a topic. Example 8.10.1 illustrates a conclusion. Note that it does not say that there is "proof." Reviewers should hedge and talk about degrees of evidence (e.g., "It seems safe to conclude that...", "One conclusion might be that...", "There is strong evidence that...", or "The evidence overwhelmingly supports the conclusion that...").

Example 8.10.1

In light of the research on cultural differences in attitudes toward organ donation, *it seems safe to conclude that* (emphasis added) cultural groups differ substantially in their attitudes toward organ donation and that effective intervention strategies need to take account of these differences. Specifically....

If the weight of the evidence on a topic does not clearly favor one conclusion over the other, be prepared to say so. Example 8.10.2 illustrates this technique.

Example 8.10.2

Although the majority of the studies indicate Method A is superior, several methodologically strong studies point to the superiority of Method B. In the absence of additional evidence, *it is difficult to conclude that* (emphasis added)....

An *implication* is usually a statement of what individuals or organizations should do in light of existing research. In other words, a reviewer usually should make suggestions as to what actions seem promising based on the review of the research. Thus, it is usually desirable to include the heading “Implications” near the end of a topic outline. Example 8.10.3 is an implication because it suggests that a particular intervention might be effectively used with a particular group.

Example 8.10.3

The body of evidence reviewed in this paper suggests that when working with Asian Americans, Intervention A seems most promising for increasing the number of organ donations made by this group.

At first, some novice writers believe that they should describe only “facts” from the published research and not venture to offer their own conclusions and related implications. Keep in mind, however, that an individual who thoroughly and carefully reviewed the literature on a topic has, in fact, become an expert on it. Whom else should we look to for advice on the state of a knowledge base (conclusions) and what we should do to be more effective (implications) than an expert who has up-to-date knowledge of the research on a topic? Thus, it is appropriate to express your conclusions regarding the state of knowledge on a topic and the implications that follow from them.

✓ Guideline 11: Plan to suggest specific directions for future research near the end of the review.

Note that in the outline in Example 8.3.1, the reviewers plan to discuss future research in point V.C. As you plan what to say, keep in mind that it is inadequate to simply suggest that “more research is needed in the future.” Instead, make specific suggestions. For instance, if all (or almost all) the researchers have used self-report questionnaires, you might call for future research using other means of data collection, such as direct observation of physical behavior and an examination of records kept by agencies that coordinate donations. If there are understudied groups such as Native Americans, you might call for more research on them. If almost all the studies are quantitative, you might call for additional qualitative studies. The list of possibilities is almost endless. Your job is to suggest those that you think are most promising for advancing knowledge in the area you are reviewing.

✓ Guideline 12: Flesh out your outline with details from your analysis.

The final step before you begin to write your first draft is to review the topic outline and flesh it out with specific details from your analysis of the research literature. Make every effort, as you expand the outline, to include enough details to be able to write clearly about the studies you are including. Make sure to note the strengths and weaknesses of studies as well as the gaps, relationships, and major trends or patterns that emerge in the literature. At the end of this step, your outline should be several pages long, and you will be ready to write your first draft.

Example 8.12.1 illustrates how a small portion of the topic outline in Example 8.3.1 (specifically, point II.A.1. in Example 8.12.1) would look if it were fleshed out with additional details.

Example 8.12.1

Part of a fleshed-out outline:

- II. Individual decisions regarding posthumous organ donation
 - A. Beliefs about organ donation (research can be categorized into 5 major groupings)
 - I. Religious beliefs
 - a. Define the term “religious beliefs”
 - b. Religions that support organ donation
 - (1) Buddhism, Hinduism (Ulshafer, 1988; Woo, 2002)
 - (2) Catholicism (Ulshafer, 1988)
 - (3) Judaism (Bulka, 1990; Cohen, 1988; Pearl, 1990; Weiss, 1988)
 - (4) Protestantism (Walters, 1988)
 - (5) Islam (Gatrad, 1994; Rispler-Chaim, 1989; Sachedina, 2003)
 - c. Religions that do not support it
 - (1) Jehovah’s Witnesses (Corlett, 2003; Pearl, 2004)
 - (2) Orthodox Judaism (Corlett, 2003; Pearl, 2004)
 - d. Other sources that have commented on religion as a barrier (Basu et al., 1989; Gallup Organization, 1993; Moore et al., 2004)

Notice that several of the references in Example 8.12.1 appear in more than one place. For instance, Corlett’s 2003 report will be referred to under a discussion of both Jehovah’s Witnesses and Orthodox Judaism. This is appropriate because a reviewer should *not* be writing a series of summaries in which Corlett’s study is summarized in one place and then dropped from the discussion. Instead, it should be cited as many times as needed, depending on how many specific points it bears on in the outline.

Activities for Chapter 8

Directions: For each of the model literature reviews that your instructor assigns, answer the following questions. The model reviews are near the end of this book.

1. Did the author use an appropriate academic voice? Did the author write in the first person? Explain.
2. Does the author’s argument move logically from one topic to another? Explain.
3. Has the author pointed out areas needing more research? Explain.