

4
Edition



RESEARCH DESIGN

Qualitative,
Quantitative,
and
Mixed Methods
Approaches

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Review of the Literature

Besides selecting a quantitative, qualitative, or mixed methods approach, the proposal designer also needs to review the literature about a **topic**. This literature review helps to determine whether the topic is worth studying, and it provides insight into ways in which the researcher can limit the scope to a needed area of inquiry.

This chapter continues the discussion about preliminary considerations before launching into a proposal. It begins with a discussion about selecting a topic and writing this topic down so that the researcher can continually reflect on it. At this point, researchers also need to consider whether the topic can and should be researched. Then the discussion moves into the actual process of reviewing the literature; addressing the general purpose for using literature in a study; and then turning to principles helpful in designing literature into qualitative, quantitative, and mixed methods studies.

THE RESEARCH TOPIC

Before considering what literature to use in a project, first identify a topic to study and reflect on whether it is practical and useful to undertake the study. The topic is the subject or subject matter of a proposed study, such as "faculty teaching," "organizational creativity," or "psychological stress." Describe the topic in a few words or in a short phrase. The topic becomes the central idea to learn about or to explore.

There are several ways that researchers gain some insight into their topics when they are initially planning their research (my assumption is that the topic is chosen by the researcher and not by an adviser or committee member). One way is to draft a brief working title to the study. I am surprised at how often researchers fail to draft a title early in the development of their projects. In my opinion, the working or draft title becomes

a major road sign in research—a tangible idea that the researcher can keep refocusing on and changing as the project goes on (see Glesne & Peshkin, 1992). It becomes an orienting device. I find that in my research, this topic grounds me and provides a sign of what I am studying, as well as a sign useful for conveying to others the central notion of my study. When students first provide their research project idea to me, I often ask them to supply a working title if they do not already have one written down on paper.

How would this working title be written? Try completing this sentence: "My study is about . . ." A response might be, "My study is about at-risk children in the junior high," or "My study is about helping college faculty become better researchers." At this stage in the design, frame the answer to the question so that another scholar might easily grasp the meaning of the project. A common shortcoming of beginning researchers is that they frame their study in complex and erudite language. This perspective may result from reading published articles that have undergone numerous revisions before being set in print. Good, sound research projects begin with straightforward, uncomplicated thoughts that are easy to read and understand. Think about a journal article that you have read recently. If it was easy and quick to read, it was likely written in general language that many readers could easily identify with in a way that was straightforward and simple in overall design and conceptualization. As a project develops it will become more complicated.

Wilkinson (1991) provided useful advice for creating a title: Be brief and avoid wasting words. Eliminate unnecessary words, such as "An Approach to . . .," "A Study of . . .," and so forth. Use a single title or a double title. An example of a double title would be "An Ethnography: Understanding a Child's Perception of War." In addition to Wilkinson's thoughts, consider a title no longer than 12 words, eliminate most articles and prepositions, and make sure that it includes the focus or topic of the study.

Another strategy for topic development is to pose the topic as a brief question. What question needs to be answered in the proposed study? A researcher might ask, "What treatment is best for depression?" "What does it mean to be Arabic in U.S. society today?" "What brings people to tourist sites in the Midwest?" When drafting questions such as these, focus on the key topic in the question as the major signpost for the study. Consider how this question might be expanded later to be more descriptive of your study (see Chapters 6 and 7 on the purpose statement and research questions and hypotheses).

Actively elevating this topic to a research study calls for reflecting on whether the topic can and should be researched. A topic *can* be researched if a researcher has participants willing to serve in the study. It also can be researched if the investigator has resources such as collecting data over a sustained period of time and using available computer programs to help in the analysis of data.

The question of *should* is a more complex matter. Several factors might go into this decision. Perhaps the most important are whether the topic adds to the pool of research knowledge in the literature available on the topic, replicates past studies, lifts up the voices of underrepresented groups or individuals, helps address social justice, or transforms the ideas and beliefs of the researcher.

A first step in any project is to spend considerable time in the library examining the research on a topic (strategies for effectively using the library and library resources appear later in this chapter). This point cannot be overemphasized. Beginning researchers may advance a great study that is complete in every way, such as in the clarity of research questions, the comprehensiveness of data collection, and the sophistication of statistical analysis. But the researcher may garner little support from faculty committees or conference planners because the study does not add anything new to the body of research. Ask, "How does this project contribute to the literature?" Consider how the study might address a topic that has yet to be examined, extend the discussion by incorporating new elements, or replicate (or repeat) a study in new situations or with new participants.

The issue of *should* the topic be studied also relates to whether anyone outside of the researcher's own immediate institution or area would be interested in the topic. Given a choice between a topic that might be of limited regional interest or one of national interest, I would opt for the latter because it would have wide appeal to a much broader audience. Journal editors, committee members, conference planners, and funding agencies all appreciate research that reaches a broad audience. Finally, the *should* issue also relates to the researcher's personal goals. Consider the time it takes to complete a project, revise it, and disseminate the results. All researchers should consider how the study and its heavy commitment of time will pay off in enhancing career goals, whether these goals relate to doing more research, obtaining a future position, or advancing toward a degree.

Before proceeding with a proposal or a study, one needs to weigh these factors and ask others for their reaction to a topic under consideration. Seek reactions from colleagues, noted authorities in the field, academic advisers, and faculty committee members. I often have students bring to me a one-page sketch of their proposed project that includes the problem or issue leading to a need for the study, the central research question they plan on asking, the types of data they will collect, and the overall significance of their study.

THE LITERATURE REVIEW

Once the researcher identifies a topic that can and should be studied, the search can begin for related literature on the topic. The literature review accomplishes several purposes. It shares with the reader the results of

other studies that are closely related to the one being undertaken. It relates a study to the larger, ongoing dialogue in the literature, filling in gaps and extending prior studies (Cooper, 2010; Marshall & Rossman, 2011). It provides a framework for establishing the importance of the study as well as a benchmark for comparing the results with other findings. All or some of these reasons may be the foundation for writing the scholarly literature into a study (see Boote & Beile, 2005, for a more extensive discussion of purposes for compiling a literature review in research). Studies need to add to the body of literature on a topic, and literature sections in proposals are generally shaped from the larger problem to the narrower issue that leads directly into the methods of a study.

The Use of the Literature

Beyond the question of why literature is used is the additional issue of how it is used in research and proposals. It can assume various forms. My best advice is to seek the opinion of your adviser or faculty members as to how they would like to see the literature addressed. I generally recommend to my advisees that the literature review in a proposal be brief and provide a summary of the major studies on the research problem; it does not need to be fully developed and comprehensive at this point, since faculty may ask for major changes in the study at the proposal meeting. In this model, the literature review is shorter—say 20 to 30 pages in length—and tells the reader that the student is aware of the literature on the topic and the latest writings. Another approach is to develop a detailed outline of the topics and potential references that will later be developed into an entire chapter, usually the second, titled "Literature Review," which might run from 20 to 60 pages or so.

The literature review in a journal article is an abbreviated form of that found in a dissertation or master's thesis. It typically is contained in a section called "Related Literature" and follows the introduction to a study. This is the pattern for quantitative research articles in journals. For qualitative research articles, the literature review may be found in a separate section, included in the introduction, or threaded throughout the study. Regardless of the form, another consideration is how the literature might be reviewed, depending on whether a qualitative, quantitative, or mixed methods approach has been selected.

In general, the literature review can take several forms. Cooper (2010) discussed four types: literature reviews that (a) integrate what others have done and said, (b) criticize previous scholarly works, (c) build bridges between related topics, and (d) identify the central issues in a field. With the exception of criticizing previous scholarly works, most dissertations and theses serve to integrate the literature, organize it into a series of

related topics (often from general topics to narrower ones), and summarize the literature by pointing out the central issues.

In *qualitative* research, inquirers use the literature in a manner consistent with the assumptions of learning from the participant, not prescribing the questions that need to be answered from the researcher's standpoint. One of the chief reasons for conducting a qualitative study is that the study is exploratory. This usually means that not much has been written about the topic or the population being studied, and the researcher seeks to listen to participants and build an understanding based on what is heard.

However, the use of the literature in qualitative research varies considerably. In theoretically oriented studies, such as ethnographies or critical ethnographies, the literature on a cultural concept or a critical theory is introduced early in the report or proposal as an orienting framework. In grounded theory, case studies, and phenomenological studies, literature is less often used to set the stage for the study.

With an approach grounded in learning from participants and variation by type, there are several models for incorporating the literature review into a qualitative study. I offer three placement locations, and it can be used in any or all of these locations. As shown in Table 2.1, the research might include the literature review in the introduction. In this placement, the literature provides a useful backdrop for the problem or issue that has led

Table 2.1 Using Literature in a Qualitative Study

Use of the Literature	Criteria	Examples of Suitable Strategy Types
The literature is used to frame the problem in the introduction to the study.	There must be some literature available.	Typically, literature is used in all qualitative studies, regardless of type.
The literature is presented in a separate section as a review of the literature.	This approach is often acceptable to an audience most familiar with the traditional postpositivist approach to literature reviews.	This approach is used with those studies employing a strong theory and literature background at the beginning of a study, such as ethnographies and critical theory studies.
The literature is presented in the study at the end; it becomes a basis for comparing and contrasting findings of the qualitative study.	This approach is most suitable for the inductive process of qualitative research; the literature does not guide and direct the study but becomes an aid once patterns or categories have been identified.	This approach is used in all types of qualitative designs, but it is most popular with grounded theory, where one contrasts and compares a theory with other theories found in the literature.

to the need for the study, such as who has been writing about it, who has studied it, and who has indicated the importance of studying the issue. This framing of the problem is, of course, contingent on available studies. One can find illustrations of this model in many qualitative studies employing different types of inquiry strategy.

A second form is to review the literature in a separate section, a model typically used in quantitative research, often found in journals with a quantitative orientation. In theory-oriented qualitative studies, such as ethnography, critical theory, or with a transformative aim, the inquirer might locate the theory discussion and literature in a separate section, typically toward the beginning of the write-up. Third, the researcher may incorporate the related literature in the final section, where it is used to compare and contrast with the results (or themes or categories) to emerge from the study. This model is especially popular in grounded theory studies, and I recommend it because it uses the literature inductively.

Quantitative research, on the other hand, includes a substantial amount of literature at the beginning of a study to provide direction for the research questions or hypotheses. It is also used to introduce a problem or to describe in detail the existing literature in a section titled "Related Literature" or "Review of Literature," or some other similar phrase. Also, the literature review can introduce a theory—an explanation for expected relationships (see Chapter 3)—describe the theory that will be used, and suggest why it is a useful theory to examine. At the end of a study, the researcher then revisits the literature and makes a comparison between the results with the existing findings in the literature. In this model, the quantitative researcher uses the literature deductively as a framework for the research questions or hypotheses.

In a *mixed methods* study, the researcher uses either a qualitative or a quantitative approach to the literature, depending on the type of strategy being used. In a sequential approach, the literature is presented in each phase in a way consistent with the method being used. For example, if the study begins with a quantitative phase, then the investigator is likely to include a substantial literature review that helps to establish a rationale for the research questions or hypotheses. If the study begins with a qualitative phase, then the literature is substantially less, and the researcher may incorporate it more into the end of the study—an inductive approach. If the researcher advances a concurrent study with an equal weight and emphasis on both qualitative and quantitative data, then the literature may take either qualitative or quantitative forms. The decision as to which form to use is based on the audience for the study and what they would be most receptive to as well as to the students' graduate committees and their orientation. To recap, the literature use in a mixed methods project will depend on the strategy and the relative weight given to the qualitative or quantitative research in the study.

My suggestions for using the literature in planning a qualitative, quantitative, or mixed methods study are as follows:

- In a qualitative study, use the literature sparingly in the beginning in order to convey an inductive design unless the design type requires a substantial literature orientation at the outset.
- Consider the most appropriate place for the literature in a qualitative study, and base the decision on the audience for the project. Keep in mind the options: placing it at the beginning to frame the problem, placing it in a separate section, and using it at the end to compare and contrast with the findings.
- Use the literature in a quantitative study deductively—as a basis for advancing research questions or hypotheses.
- In a quantitative study plan, use the literature to introduce the study, describe related literature in a separate section, and compare findings.
- In a mixed methods study, use the literature in a way that is consistent with the major type of strategy and the qualitative or quantitative approach most prevalent in the design.
- Regardless of the type of study, consider the type of literature review to conduct, such as an integrative, critical, building bridges among topics or the identification of central issues.

Design Techniques

Regardless of the type of study, several steps are useful in conducting a literature review.

Steps in Conducting a Literature Review

A literature review means locating and summarizing the studies about a topic. Often these are research studies (since you are conducting a research study), but they may also include conceptual articles or opinion pieces that provide frameworks for thinking about topics. There is no single way to conduct a literature review, but many scholars proceed in a systematic fashion to capture, evaluate, and summarize the literature. Here is the way I recommend:

1. Begin by identifying key words, which is useful in locating materials in an academic library at a college or university. These key words may emerge in identifying a topic or may result from preliminary readings.
2. With these key words in mind, go next to the library (or use your home computer) and begin searching the catalog for holdings (i.e., journals

and books). Most major libraries have computerized databases, and I suggest you focus initially on journals and books related to the topic. Also, begin to search the computerized databases that are typically reviewed by social science researchers, such as ERIC (Educational Resources Information Center), EBSCO, PsycINFO, Sociofile, the Social Science Citation Index, Google Scholar, ProQuest, and others (these are reviewed later in some detail).

3. Initially, try to locate about 50 reports of research in articles or books related to research on your topic. Set a priority on the search for journal articles and books because they are easy to locate and obtain. Determine whether these articles and books exist in your academic library or whether you need to send for them by interlibrary loan or purchase them through a bookstore.
4. Skim this initial group of articles or chapters, and duplicate those that are central to your topic. Throughout this process, simply try to obtain a sense as to whether the article or chapter will make a useful contribution to your understanding of the literature.
5. As you identify useful literature, begin designing a **literature map** (to be discussed more fully later). This is a visual picture (or figure) of groupings of the literature on the topic that illustrates how your particular study will contribute to the literature, positioning your study within the larger body of research.
6. As you put together the literature map, also begin to draft summaries of the most relevant articles. These summaries are combined into the final literature review that you write for your proposal or research study. Include precise references to the literature using an appropriate style guide, such as the *Publication Manual of the American Psychological Association* (American Psychological Association [APA], 2010) so that you have a complete reference to use at the end of the proposal or study.
7. After summarizing the literature, assemble the literature review, structuring it thematically or organizing it by important concepts. End the literature review with a summary of the major themes and suggest how your particular study further adds to the literature and addresses a gap in the themes. It is at this point as well that you could advance a critique of the past literature and point out deficiencies in it and issues in its methods (see Boote & Beile, 2005).

Searching Computerized Databases

To ease the process of collecting relevant material, there are some techniques useful in accessing the literature quickly through databases. **Computer databases of the literature** are now available in academic

libraries and through the Internet, and they provide easy access to thousands of journals, conference papers, and materials on many different topics. Academic libraries at major universities have purchased commercial databases as well as obtained databases in the public domain. Only a few of the major databases available will be reviewed here, but they are the major sources to journal articles and documents that you should consult to determine what literature is available on your topic.

ERIC is a free online digital library of education research and information sponsored by the Institute of Education Sciences (IES) of the U.S. Department of Education. This database can be found at www.eric.ed.gov, and ERIC provides a search of 1.2 million items indexed since 1966. The collection includes journal articles, books, research syntheses, conference papers, technical reports, policy papers, and other education-related materials. ERIC indexes more than hundreds of journals, and links are available to full-text copies of many of the materials. To best utilize ERIC, it is important to identify appropriate descriptors for your topic, the terms used by indexers to categorize article or documents. Researchers can search through the *Thesaurus of ERIC Descriptors* (ERIC, 1975) or browse the online thesaurus. A **research tip** in conducting an ERIC search is to locate recent journal articles and documents on your topic. This process can be enhanced by conducting a preliminary search using descriptors from the online thesaurus and locating a journal article or document which is on your topic. Then look closely at the descriptors used in this article and document and run another search using these terms. This procedure will maximize the possibility of obtaining a good list of articles for your literature review.

Another free database to search is Google Scholar. It provides a way to broadly search for literature across many disciplines and sources, such as peer-reviewed papers, theses, books, abstracts, and articles from academic publishers, professional societies, universities, and other scholarly organizations. The articles identified in a Google Scholar search provide links to abstracts, related articles, electronic versions of articles affiliated with a library you specify, web searches for information about this work, and opportunities to purchase the full text of the article.

Researchers can obtain abstracts to publications in the health sciences through the free-access PubMed. This database is a service of the U.S. National Library of Medicine, and it includes over 17 million citations from MEDLINE and life science journals for biomedical articles going back to the 1950s (www.ncbi.nlm.nih.gov). PubMed includes links to full-text articles (located in academic libraries) and other related resources. To search PubMed, the researcher uses MeSH (Medical Subject Headings) terms, the U.S. National Library of Medicine's controlled vocabulary thesaurus used for indexing articles for MEDLINE/PubMed. This MeSH terminology provides a consistent way to retrieve information about topics that may be described using different terms.

Academic libraries also have site licenses to important commercial databases. One typically available is ProQuest (<http://proquest.com>), which enables a researcher to search many different databases, and it is one of the largest online content repositories in the world. Another would be EBSCO publishing, a for-fee online research service, including full-text databases, subject indexes, point-of-care medical reference, historical digital archives, and e-books. The company provides more than 350 databases and nearly 300,000 e-books. Also at academic libraries you can search ERIC, PsycINFO, Dissertation Abstracts, Periodicals Index, Health and Medical Complete, and many more specialized databases (e.g., International Index to Black Periodicals). Because EBSCO taps into many different databases, it can be one search tool to use before using more specialized databases.

Another commercially licensed database found in many academic libraries is Sociological Abstracts (Cambridge Scientific Abstracts, www.csa.com). This database indexes over 2,000 journals; conference papers; relevant dissertation listings; book reviews; and selected books in sociology, social work, and related disciplines. For literature in the field of psychology and related areas, consult another commercial database: PsycINFO (www.apa.org). This database indexes 2,150 journal titles, books, and dissertations from many countries. It covers the field of psychology as well as psychological aspects of physiology, linguistics, anthropology, business, and law. It has a Thesaurus of Psychological Index Terms to locate useful terms in a literature search.

A final commercial database available in libraries is the Social Sciences Citation Index (SSCI) (Web of Knowledge, Thomson Scientific [<http://isiwebofknowledge.com>]). It indexes 1,700 journals spanning 50 disciplines and selectively indexes relevant items from over 3,300 scientific and technical journals. It can be used to locate articles and authors who have conducted research on a topic. It is especially useful in locating studies that have referenced an important study. The SSCI enables you to trace all studies since the publication of the key study that have cited the work. Using this system, you can develop a chronological list of references that document the historical evolution of an idea or study. This chronological list can be most helpful in tracking the development of ideas about your literature review topic.

In summary, my research tips for searching computer databases are to do the following:

- Use both the free, online literature databases as well as those available through your academic library.
- Search several databases, even if you feel that your topic is not strictly education, as found in ERIC, or psychology, as found in PsycINFO. Both ERIC and PsycINFO view education and psychology as broad terms for many topics.

- Use guides to terms to locate your articles, such as a thesaurus, when available.
- Locate an article that is close to your topic; then look at the terms used to describe it, and use these terms in your search.
- Use databases that provide access to full-text copies of your articles (through academic libraries, your Internet connection to a library, or for a fee) as much as possible so that you can reduce the amount of time searching for copies of your articles.

A Priority for Selecting Literature Material

I recommend that you establish a priority in a search of the literature. What types of literature might be reviewed and in what priority? Consider the following:

1. Especially if you are examining a topic for the first time and unaware of the research on it, start with broad syntheses of the literature, such as overviews found in encyclopedias (e.g., Akin, 1992; Keeves, 1988). You might also look for summaries of the literature on your topic presented in journal articles or abstract series (e.g., *Annual Review of Psychology*, 1950–).
2. Next, turn to journal articles in respected national journals—especially those that report research studies. By *research*, I mean that the author or authors pose a question or hypothesis, collect data, and try to answer the question or hypothesis. There are journals widely read in your field, and typically they are publications with a high-quality editorial board consisting of individuals from around the United States or abroad. By turning to the first few pages, you can determine if an editorial board is listed and whether it is made up of individuals from around the country or world. Start with the most recent issues of the journals, and look for studies about your topic and then work backward in time. Follow up on references at the end of the articles for more sources to examine.
3. Turn to books related to the topic. Begin with research monographs that summarize the scholarly literature. Then consider entire books on a single topic by a single author or group of authors or books that contain chapters written by different authors.
4. Follow this search by looking for recent conference papers. Look for major national conferences and the papers delivered at them. Often, conference papers report the latest research developments. Most major conferences either require or request that authors submit their papers for inclusion in computerized indices. Make contact

with authors of pertinent studies. Seek them out at conferences. Write or phone them, asking if they know of studies related to your area of interest and inquire also if they have an instrument that might be used or modified for use in your study.

5. If time permits, scan the entries in *Dissertation Abstracts* (University Microfilms, 1938–). Dissertations vary immensely in quality, and one needs to be selective in choosing those to review. A search of the *Abstracts* might result in one or two relevant dissertations, and you can request copies of them through interlibrary loans or through the University of Michigan Microfilm Library.
6. The web also provides helpful materials for a literature review. The easy access and ability to capture entire articles makes this source of material attractive. However, screen these articles carefully for quality and be cautious about whether they represent rigorous, thoughtful, and systematic research suitable for use in a literature review. Online journals, on the other hand, often include articles that have undergone rigorous reviews by editorial boards. You might check to see if the journal has a refereed editorial board that reviews manuscripts and has published standards for accepting manuscripts in an editorial statement.

In summary, I place refereed journal articles high on the list because they are the easiest to locate and duplicate. They also report research about a topic. Dissertations are listed lower in priority because they vary considerably in quality and are the most difficult reading material to locate and reproduce. Caution should be used in choosing journal articles on the web unless they are part of refereed online journals.

A Literature Map of the Research

One of the first tasks for a researcher working with a new topic is to organize the literature. As mentioned earlier, this organization enables a person to understand how the proposed study adds to, extends, or replicates research already completed.

A useful approach for this step is to design a literature map. This is an idea that I came up with several years ago, and it has been a useful tool for students to use when organizing their review of the literature for making presentations to graduate committees, summarizing the literature for a scholarly presentation, or composing an article for journal publication.

This map is a visual summary of the research that has been conducted by others, and it is typically represented in a figure. Maps are organized in different ways. One could be a hierarchical structure with a top-down presentation of the literature, ending at the bottom with the

proposed study. Another might be similar to a flowchart in which the reader understands the literature as unfolding from left to right with the farthest right-hand section advancing a proposed study. A third model might be a series of circles; each circle represents a body of literature and the intersection of the circles as the place in which the future research is indicated. I have seen examples of all of these possibilities and found them all effective.

The central idea is that the researcher begins to build a visual picture of existing research about a topic. This literature map presents an overview of existing literature. Figure 2.1 is an illustration of a map that shows the literature found on procedural justice in organizational studies (Janovec, 2001). Janovec's map illustrates a hierarchical design, and she used several principles of good map design:

- She placed her topic in the box at the top of the hierarchy.
- Next, she took the studies that she found in computer searches, located copies of these studies, and organized them into three broad subtopics (i.e., Justice Perceptions Formation, Justice Effects, and Justice in Organizational Change). For another map, the researcher may have more or fewer than three major categories, depending on the extent and publications on the topic.
- Within each box are labels that describe the nature of the studies in the box (i.e., outcomes).
- Also within each box are references to major citations illustrating its content. It is useful to use references that are current and illustrative of the topic of the box and to briefly state the references in an appropriate style, such as APA (APA, 2010).
- Consider several levels for the literature map. In other words, major topics lead to subtopics and then to sub-subtopics.
- Some branches of the chart are more developed than others. This development depends on the amount of literature available and the depth of the exploration of the literature by the researcher.
- After organizing the literature into a diagram, Janovec (2001) next considered the branches of the figure that provided a springboard for her proposed study. She placed a "Need to Study" (or proposed study) box at the bottom of the map, she briefly identified the nature of this proposed study (Procedural Justice and Culture), and she then drew lines to past literature that her project would *extend*. She proposed this study based on ideas written by other authors in the future research sections of their studies.
- Include quantitative, qualitative, and mixed methods studies in your literature map.

- Write a narrative description of your literature map for your committee or for presentation that begins with your topic (the heading box at the top), the databases you have reviewed, the division of the literature into broad topics in the map, the specific topic that you plan to study (at the bottom box of the map), and how your topic relates to various branches in the literature (the connecting lines—what literature your study builds on and how it builds).

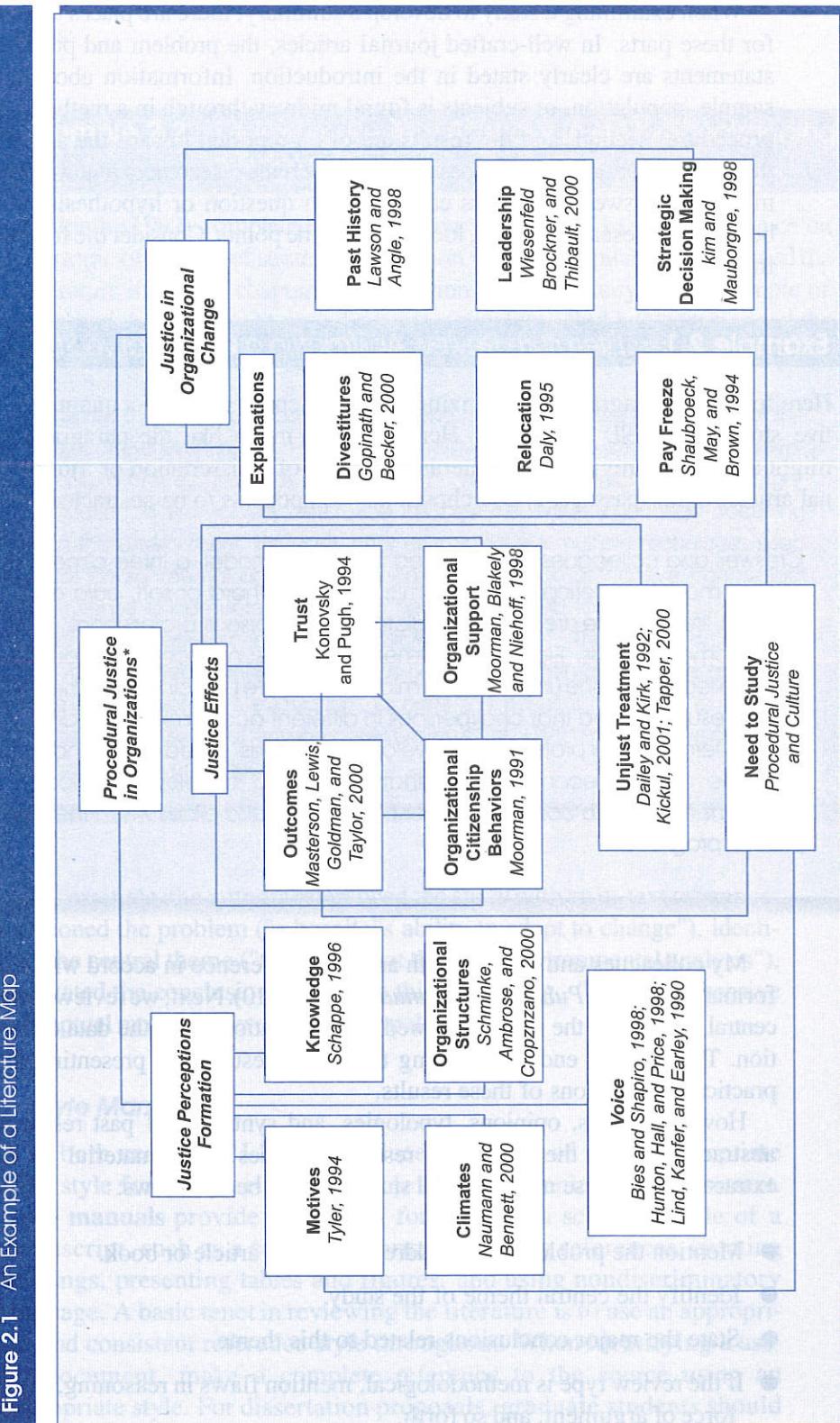
Composing a literature map can be challenging. Individuals seeing this map may not be familiar with this approach to organizing the literature and making a case for your study. They need to be told the intent of such a map. It takes time to develop such a map and locate literature to put into the map. For a preliminary map, I consider collecting maybe 25 studies. For a full literature map for a dissertation or thesis, I would consider developing a map with at least 100 studies. Figuring out how your study adds to the literature takes some time. It may add to several threads in your literature map. I would refrain from tying it to all of your subdivisions; select one or two subdivisions. It is also challenging to figure out what the broad topic might be for the top of the map. This is the topic to which your literature map adds. Ask others who know about your literature, see how the research studies group according to some synthesis of the literature, and continually ask yourself what body of literature your study will contribute to. You may also have to develop several versions of your map before it comes together. Develop your map, write the discussion, and check it out with others.

Abstracting Studies

When researchers write reviews of the literature for proposed studies, they locate articles and develop brief abstracts of the articles that comprise the review. An **abstract** is a brief review of the literature (typically a short paragraph) that summarizes major elements to enable a reader to understand the basic features of the article. In developing an abstract, researchers need to consider what material to extract and summarize. This is important information when reviewing perhaps dozens, if not hundreds, of studies. A good summary of a research study reported in a journal might include the following points:

- Mention the problem being addressed.
- State the central purpose or focus of the study.
- Briefly state information about the sample, population, or subjects.
- Review key results that relate to the proposed study.
- If it is a critique or methods review (Cooper, 2010), point out technical and methodological flaws in the study.

Figure 2.1 An Example of a Literature Map



*Employees' concerns about the fairness of and the making of managerial decisions

When examining a study to develop a summary, there are places to look for these parts. In well-crafted journal articles, the problem and purpose statements are clearly stated in the introduction. Information about the sample, population, or subjects is found midway through in a method (or procedure) section, and the results are often reported toward the end. In the results sections, look for passages in which the researchers report information to answer or address each research question or hypothesis. For book-length research studies, look for the same points. Consider the following example:

Example 2.1 Literature Review Abstract in a Quantitative Study

Here follows a paragraph summarizing the major components of a quantitative study (Creswell, Seagren, & Henry, 1979), much like the paragraph might appear in a review of the literature section of a dissertation or a journal article. In this passage, I have chosen key components to be abstracted.

Creswell and colleagues (1979) tested the Biglan model, a three-dimensional model clustering 36 academic areas into hard or soft, pure or applied, life or nonlife areas, as a predictor of chairpersons' professional development needs. Eighty department chairpersons located in four state colleges and one university of a midwestern state participated in the study. Results showed that chairpersons in different academic areas differed in terms of their professional development needs. Based on the findings, the authors recommended that those who develop inservice programs needed to consider differences among disciplines when they plan for programs.

My colleagues and I began with an in-text reference in accord with the format in the *APA Publication Manual* (APA, 2010). Next, we reviewed the central purpose of the study, followed by information about the data collection. The abstract ended by stating the major results and presenting the practical implications of these results.

How are essays, opinions, typologies, and syntheses of past research abstracted, since these are not research studies? The material to be extracted from these nonempirical studies would be as follows:

- Mention the problem being addressed by the article or book.
- Identify the central theme of the study.
- State the major conclusions related to this theme.
- If the review type is methodological, mention flaws in reasoning, logic, force of argument, and so forth.

Consider the following example that illustrates the inclusion of these aspects:

Example 2.2 Literature Review Abstract in a Study Advancing a Typology

Sudduth (1992) completed a quantitative dissertation in political science on the topic of the use of strategic adaptation in rural hospitals. He reviewed the literature in several chapters at the beginning of the study. In an example of summarizing a single study advancing a typology, Sudduth summarized the problem, the theme, and the typology:

Ginter, Duncan, Richardson, and Swayne (1991) recognize the impact of the external environment on a hospital's ability to adapt to change. They advocate a process that they call environmental analysis, which allows the organization to strategically determine the best responses to change occurring in the environment. However, after examining the multiple techniques used for environmental analysis, it appears that no comprehensive conceptual scheme or computer model has been developed to provide a complete analysis of environmental issues (Ginter et al., 1991). The result is an essential part of strategic change that relies heavily on a non-quantifiable and judgmental process of evaluation. To assist the hospital manager to carefully assess the external environment, Ginter et al. (1991) have developed the typology given in Figure 2.1. (p. 44)

In this example, the authors referenced the study with an in-text reference, mentioned the problem ("a hospital's ability to adapt to change"), identified the central theme ("a process that they call environmental analysis"), and stated the conclusions related to this theme (e.g., "no comprehensive conceptual model," "developed the typology").

Style Manuals

In both examples, I have introduced the idea of using appropriate APA style for referencing the article at the beginning of the abstract.

Style manuals provide guidelines for creating a scholarly style of a manuscript, such as a consistent format for citing references, creating headings, presenting tables and figures, and using nondiscriminatory language. A basic tenet in reviewing the literature is to use an appropriate and consistent reference style throughout. When identifying a useful document, make a complete reference to the source using an appropriate style. For dissertation proposals, graduate students should

seek guidance from faculty, dissertation committee members, or department or college officials about the appropriate style manual to use for citing references.

The *Publication Manual of the American Psychological Association* (APA, 2010) is the most popular style manual used in the fields of education and psychology. *The Chicago Manual of Style* (University of Chicago Press, 2010) is also used but less widely than the APA style in the social sciences. Some journals have developed their own variations of the popular styles. I recommend identifying a style that is acceptable for your writing audiences and adopting it early in the planning process.

The most important style considerations involve in-text, end-of-text, heading, and figures and tables use. Some suggestions for using style manuals for scholarly writing are these:

- When writing in-text references, keep in mind the appropriate form for types of references and pay close attention to the format for multiple citations.
- When writing the end-of-text references, note whether the style manual calls for them to be alphabetized or numbered. Also, crosscheck that each in-text reference is included in the end-of-text list.
- The headings are ordered in a scholarly paper in terms of levels. First, note how many levels of headings you will have in your research study. Then, refer to the style manual for the appropriate format for each. Typically, research proposals contain between two and four levels of headings.
- If footnotes are used, consult the style manual for their proper placement. Footnotes are used less frequently in scholarly papers today than a few years ago. If you include them, note whether they go at the bottom of the page, the end of each chapter, or at the end of the paper.
- Tables and figures have a specific form in each style manual. Note such aspects as bold lines, titles, and spacing in the examples given.

In summary, the most important aspect of using a style manual is to be consistent in the approach throughout the manuscript.

The Definition of Terms

Another topic related to reviewing the literature is the identification and **definition of terms** that readers will need in order to understand a proposed research project. A definition of terms section may be found separate from the literature review, included as part of the literature review, or placed in different sections of a proposal.

Define terms that individuals outside the field of study may not understand and that go beyond common language (Locke, Spirduso, & Silverman, 2013). Clearly, whether a term should be defined is a matter of judgment, but define a term if there is any likelihood that readers will not know its meaning. Also, define terms when they first appear so that a reader does not read ahead in the proposal operating with one set of definitions only to find out later that the author is using a different set. As Wilkinson (1991) commented, "scientists have sharply defined terms with which to think clearly about their research and to communicate their findings and ideas accurately" (p. 22). Defining terms also adds precision to a scientific study, as Firestone (1987) stated this:

The words of everyday language are rich in multiple meanings. Like other symbols, their power comes from the combination of meaning in a specific setting. . . . Scientific language ostensibly strips this multiplicity of meaning from words in the interest of precision. This is the reason common terms are given "technical meanings" for scientific purposes. (p. 17)

With this need for precision, one finds terms stated early in the introduction to articles. In dissertations and thesis proposals, terms are typically defined in a special section of the study. The rationale is that in formal research, students must be precise in how they use language and terms. The need to ground thoughts in authoritative definitions constitutes good science.

Define terms introduced in all sections of the research plan:

- The title of the study
- The problem statement
- The purpose statement
- The research questions, hypotheses, or objectives
- The literature review
- The theory base of the study
- The methods section

Special terms that need to be defined appear in all three types of studies: (a) qualitative, (b) quantitative, and (c) mixed methods.

- In qualitative studies, because of the inductive, evolving methodological design, inquirers may define few terms at the beginning though may advance tentative definitions. Instead, themes (or perspectives or dimensions) may emerge through the data analysis. In the procedure section, authors define these terms in the procedure section as they surface

during the process of research. This approach is to delay the definition of terms until they appear in the study, and it makes such definitions difficult to specify in advance in research proposals. For this reason, qualitative proposals often do not include separate sections for a definition of terms. Instead, writers pose tentative, qualitative definitions before entry into the field.

- On the other hand, quantitative studies—operating more within the deductive model of fixed and set research objectives—include extensive definitions early in the research proposal. Investigators place them in separate sections and precisely define them. The researchers try to comprehensively define all relevant terms at the beginning of studies and to use accepted definitions found in the literature.

In mixed methods studies, the approach to definitions might include a separate section if the study begins with a first phase of quantitative data collection. If it begins with qualitative data collection, then the terms may emerge during the research, and they are defined in the findings or results section of the final report. If both quantitative and qualitative data collection occurs at the same time, then the priority given to one or the other will govern the approach for definitions. However, in all mixed methods studies, there are terms that may be unfamiliar to readers—for example, the definition of a mixed methods study itself, in a procedural discussion (see Chapter 10). Also, clarify terms related to the strategy of inquiry used, such as concurrent or sequential, and the specific name for a strategy (e.g., convergent parallel design, as discussed in Chapter 10).

No one approach governs how one defines the terms in a study, but several suggestions follow (see also Locke et al., 2013):

- Define a term when it first appears in the proposal. In the introduction, for example, a term may require a definition to help the reader understand the research problem and questions or hypotheses in the study.
- Write definitions at a specific operational or applied level. Operational definitions are written in specific language rather than abstract, conceptual definitions. Since the definition section in a dissertation provides an opportunity for the author to be specific about the terms used in the study, a preference exists for operational definitions.
- Do not define the terms in everyday language; instead, use accepted language available in the research literature. In this way, the terms are grounded in the literature and not invented (Locke et al., 2013). It is possible that the precise definition of a term is not available in the

literature and everyday language will need to be used. In this case, provide a definition and use the term consistently throughout the plan and the study (Wilkinson, 1991).

- Researchers might define terms so that they accomplish different goals. A definition may describe a common language word (e.g., organization). It may also be paired with a limitation (e.g., the curriculum may be limited). It may establish a criterion (e.g., high grade point average), and it could also define a term operationally (e.g., reinforcement will refer to listing).
- Although no one format exists for defining terms, one approach is to develop a separate section, called the "Definition of Terms," and clearly set off the terms and their definitions by highlighting the term. In this way, the word is assigned an invariant meaning (Locke et al., 2013). Typically, this separate section is not more than two to three pages in length.

Two examples illustrate varied structures for defining terms in a research study:

Example 2.3 Terms Defined in an Independent Variables Section

This set of two examples illustrates an abbreviated form of writing definitions for a study. The first illustrates a specific operational definition of a key term and the second the procedural definition of a key term. Vernon (1992) studied how divorce in the middle generation impacts grandparents' relationships with their grandchildren. These definitions were included in a section on independent variables:

Kinship Relationship to the Grandchild

Kinship relationship to the grandchild refers to whether the grandparents are maternal grandparents or paternal grandparents. Previous research (e.g., Cherlin & Furstenberg, 1986) suggests that maternal grandparents tend to be closer to their grandchildren.

Sex of Grandparent

Whether a grandparent is a grandmother or grandfather has been found to be a factor in the grandparent/grandchild relationship (i.e., grandmothers tend to be more involved than grandfathers, which is thought to be related to the kinkeeping role of women within the family (e.g., Hagestad, 1988, pp. 35-36)).

Example 2.4 Terms Defined in a Mixed Methods Dissertation

This example illustrates a lengthy definition of terms presented in a mixed methods study in a separate section of the first chapter that introduces the study. VanHorn-Grassmeyer (1998) studied how 119 new professionals in student affairs in colleges and universities engage in reflection—either individually or collaboratively. She both surveyed the new professionals and conducted in-depth interviews with them. Because she studied individual and collaborative reflection among student affairs professionals, she provided detailed definitions of these terms in the beginning of the study. I illustrate two of her terms next. Notice how she referenced her definitions in meanings formed by other authors in the literature:

Individual Reflection

Schon (1983) devoted an entire book to concepts he named reflective thinking, reflection-in-action, and reflective practice; this after an entire book was written a decade earlier with Argyris (Argyris & Schon, 1978) to introduce the concepts. Therefore, a concise definition of this researcher's understanding of individual reflection that did justice to something that most aptly had been identified as an intuitive act was difficult to reach. However, the most salient characteristics of individual reflection for the purposes of this study were these three: (a) an "artistry of practice" (Schon, 1983), (b) how one practices overtly what one knows intuitively, and (c) how a professional enhances practice through thoughtful discourse within the mind.

Student Affairs Professional

A professional has been described in many ways. One description identified an individual who exhibited "a high degree of independent judgment, based on a collective, learned body of ideas, perspectives, information, norms, and habits [and who engage(d) in professional knowing]" (Baskett & Marsick, 1992, p. 3). A student affairs professional has exhibited such traits in service to students in a higher education environment, in any one of a number of functions which support academic and co-curricular success, (pp. 11-12)

A Quantitative or Mixed Methods Literature Review

When composing a review of the literature, it is difficult to determine how much literature to review. In order to address this problem, I have developed a model that provides parameters around the literature review, especially as it might be designed for a quantitative or mixed methods study that employs a standard literature review section. For a qualitative study, the literature review might explore aspects of the central phenomenon

being addressed and divide it into topical areas. But the literature review for a qualitative study, as discussed earlier, can be placed in a proposal in several ways (e.g., as a rationale for the research problem, as a separate section, as something threaded throughout the study, as compared with the results of a project).

For a quantitative study or the quantitative strand of a mixed methods study, write a review of the literature that contains sections about the literature related to major independent variables, major dependent variables, and studies that relate the independent and dependent variables (more on variables in Chapter 3). This approach seems appropriate for dissertations and for conceptualizing the literature to be introduced in a journal article. Consider a literature review to be composed of five components: (a) an introduction, (b) Topic 1 (about the independent variable), (c) Topic 2 (about the dependent variable), (d) Topic 3, (studies that address both the independent and dependent variables), and (e) a summary. Here is more detail about each section:

1. Introduce the review by telling the reader about the sections included in it. This passage is a statement about the organization of the section.
2. Review Topic 1, which addresses the scholarly literature about the *independent* variable or variables. With several independent variables, consider subsections or focus on the single most important variable. Remember to address only the literature about the independent variable; keep the literature about the independent and dependent variables separate in this model.
3. Review Topic 2, which incorporates the scholarly literature about the *dependent* variable or variables. With multiple dependent variables, write subsections about each variable or focus on a single important one.
4. Review Topic 3, which includes the scholarly literature that relates the independent variable(s) to the dependent variable(s). Here we are at the crux of the proposed study. Thus, this section should be relatively short and contain studies that are extremely close in topic to the proposed study. Perhaps nothing has been written on the topic. Construct a section that is as close as possible to the topic or review studies that address the topic at a more general level.
5. Provide a summary that highlights the most important studies, captures major themes, suggests why more research is needed on the topic, and advances how the proposed study will fill this need.

This model focuses the literature review, relates it closely to the variables in the research questions and hypotheses, and sufficiently narrows

the study. It becomes a logical point of departure for the research questions and the method section.

SUMMARY

Before searching the literature, identify your topic, using such strategies as drafting a brief title or stating a central research question. Also consider whether this topic can and should be researched by reviewing whether there is access to participants and resources and whether the topic will add to the literature, be of interest to others, and be consistent with personal goals.

Researchers use the scholarly literature in a study to present results of similar studies, to relate the present study to an ongoing dialogue in the literature, and to provide a framework for comparing results of a study with other studies. For qualitative, quantitative, and mixed methods designs, the literature serves different purposes. In qualitative research, the literature helps substantiate the research problem, but it does not constrain the views of participants. A popular approach is to include more literature at the end of a qualitative study than at the beginning. In quantitative research, the literature not only helps to substantiate the problem but it also suggests possible questions or hypotheses that need to be addressed. A separate literature review section is typically found in quantitative studies. In mixed methods research, the use of literature will depend on the type of design and weight given to the qualitative and quantitative aspects.

When conducting a literature review, identify key words for searching the literature. Then search the online databases, such as ERIC, EBSCO, ProQuest, Google Scholar, PubMed, and more specialized databases, such as PsycINFO, Sociofile, and SSCI. Then, locate articles or books based on a priority of searching first for journal articles and then books. Identify references that will make a contribution to your literature review. Group these studies into a literature map that shows the major categories of studies and positions your proposed study within those categories. Begin writing summaries of the studies, noting complete references according to a style manual (e.g., APA, 2010) and extracting information about the research that includes the research problem, the questions, the data collection and analysis, and the final results.

Define key terms, and possibly develop a definition of terms section for your proposal or include them within your literature review. Finally, consider the overall structure for organizing these studies. One quantitative research model is to divide the review into sections according to major variables (a quantitative approach) or major subthemes of the central phenomenon (a qualitative approach) that you are studying.

Writing Exercises

1. Develop a literature map of the studies on your topic. Include in the map the proposed study and draw lines from the proposed study to branches of studies in the map so that a reader can easily see how yours will extend existing literature.
2. Organize a review of the literature for a quantitative study, and follow the model for delimiting the literature to reflect the variables in the study. As an alternative, organize a review of literature for a qualitative study and include it in an introduction as a rationale for the research problem in the study.
3. Practice using an online computer database to search for the literature on your topic. Conduct several searches until you find an article that is as close as possible to your research topic. Then conduct a second search using descriptors mentioned in this article. Locate 10 articles that you would select and abstract for your literature review.
4. Based on your search results from Exercise 2.3, write one quantitative and one qualitative abstract of two research studies found in your online search. Use the guidelines provided in this chapter for the elements to include in your literature abstracts.

ADDITIONAL READINGS

American Psychological Association. (2010). *Publication Manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

The latest APA style manual is a must for every researcher's shelf. It provides an entire chapter offering examples of how to cite works in a reference list. The examples are extensive—from journals (or periodicals) to patents. Further guidelines for presenting tables and figures are available with good examples that you can use. This manual also has chapters on scholarly writing and the mechanics of style used in this type of writing. For those planning on publishing, it provides useful information about the standard elements of a manuscript as well as ethical issues to consider.

Boote, D. N., & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher*, 34(6), 3-15.

David Boote and Penny Beile discuss the importance of dissertation students to compile sophisticated literature reviews. To this end, they advance five criteria that should be in a rigorous literature review. The author should justify the inclusion and

exclusion of literature (coverage), critically examine the state of the field, situate the topic in the broader literature, examine the history of the topic, note ambiguities in definitions and the literature, and offer new perspectives (synthesis). It should also critique the research methods (methodology), as well as the practical and scholarly significance of the research (significance), and be written well in a coherent fashion (rhetoric).

Locke, L. F., Spirduso, W. W., & Silverman, S. J. (2010). *Proposals that work A guide for planning dissertations and grant proposals* (6th ed.) Thousand Oaks, CA: Sage.

Lawrence Locke, Waneen Spirduso, and Stephen Silverman describe several stages for reviewing the literature: develop the concepts that provide a rationale for the study, develop subtopics for each major concept, and add the most important references that support each concept. They also provide five rules for defining terms in a scholarly study: (a) never invent words, (b) provide definitions early in a proposal, (c) do not use common language forms of words, (d) define words when they are first introduced, and (e) use specific definitions for words.

Punch, K. F. (2005). *Introduction to social research: Quantitative and qualitative approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Keith Punch provides a guide to social research that equally addresses quantitative and qualitative approaches. His conceptualizations of central issues that divide the two approaches address key differences. Punch notes that when writing a proposal or report, the point at which to concentrate on the literature varies in different styles of research. Factors that affect that decision include the style of research, the overall research strategy, and how closely the study will follow the directions of the literature.

 **CHAPTER THREE**

The Use of Theory

One component of reviewing the literature is to determine what theories might be used to explore the questions in a scholarly study. In quantitative research, researchers often test theories as an explanation for answers to their questions. In a quantitative dissertation, an entire section of a research proposal might be devoted to presenting the theory for the study. In qualitative research, the use of theory is much more varied. The inquirer may generate a theory as the final outcome of a study and place it at the end of a project, such as in grounded theory. In other qualitative studies, it comes at the beginning and provides a lens that shapes what is looked at and the questions asked, such as in ethnographies or in transformative research. In mixed methods research, researchers may both test theories and generate them. Moreover, mixed methods research may contain a theoretical framework within which both quantitative and qualitative data are collected. These frameworks can be drawn from feminist, racial, class, or other perspectives and they flow through different parts of a mixed methods study.

Theories can be used in quantitative, qualitative, and mixed methods studies. I begin this chapter by focusing on theory use in a quantitative study. I review a definition of a theory, the use of variables in a quantitative study, the placement of theory, and the alternative forms it might assume in a written plan. Procedures in identifying a theory are next presented, followed by a script of a theoretical perspective section of a quantitative research proposal. Then the discussion moves to the use of theory in a qualitative study. Qualitative inquirers use different terms for theories, such as patterns, theoretical lens, or naturalistic generalizations, to describe the broader explanations used or developed in their studies. Examples in this chapter illustrate the alternatives available to qualitative researchers. Finally, the chapter turns to the use of theories in mixed methods research and the use of social science and transformative theories in such research.