

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., Aikin 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).

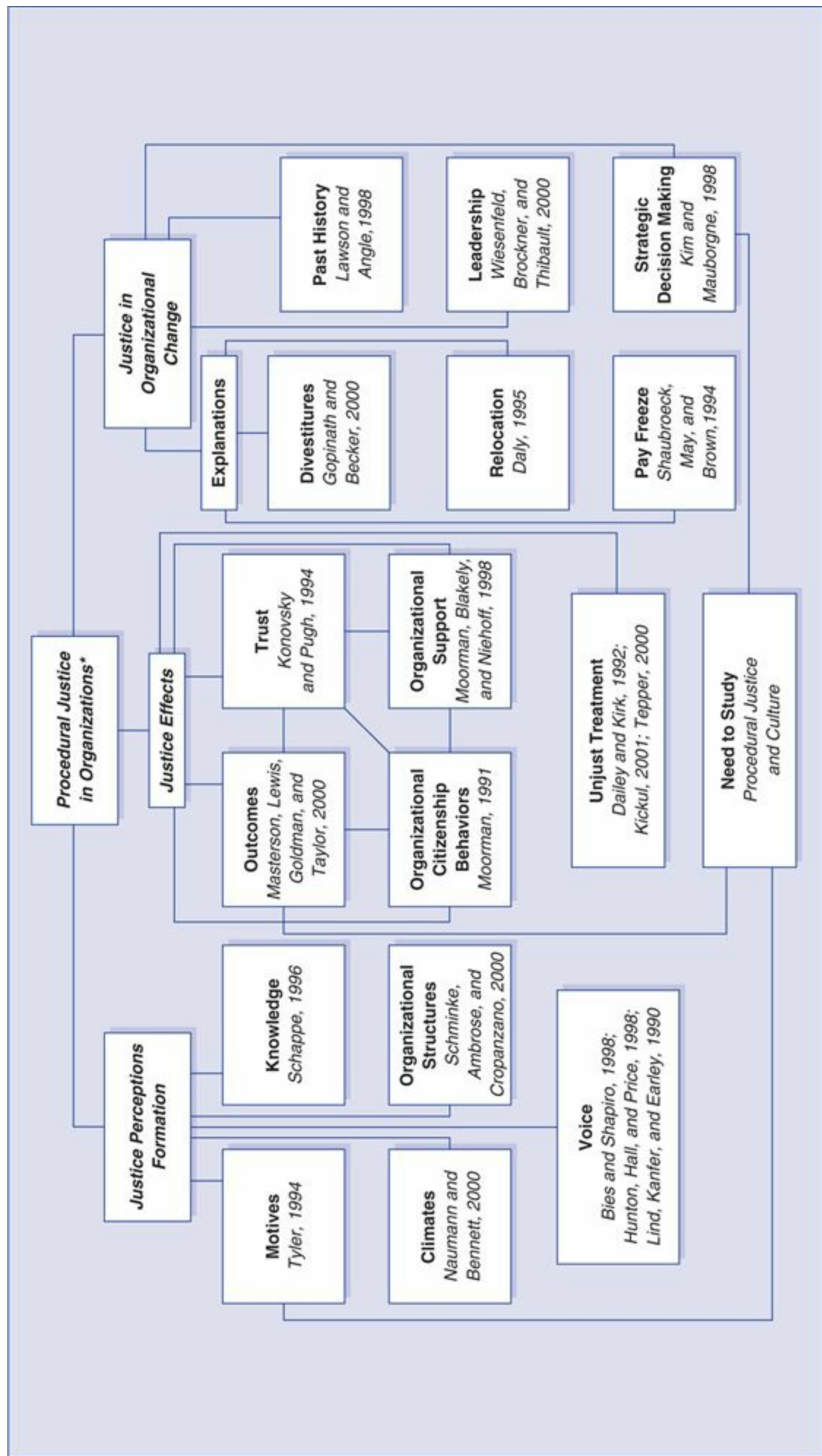
Composing a literature map can be challenging. Individuals seeing this map may not be familiar with this approach to organizing the literature and making a case for your study. They need to be told the intent of such a map. It takes time to develop such a map and locate literature to put into the map. 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
SOURCE: Janovec (2001). Reprinted by permission.

When examining a study to develop a summary, there are places to look for these parts. In well-

rafted 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 nonresearch 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 contains 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 present 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