

Writing Literature Reviews

Jose L. Galvan

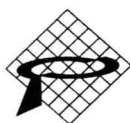
A Guide for Students of the
Social and Behavioral Sciences

Writing Literature Reviews

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and Behavioral Sciences

Jose L. Galvan

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Introduction

This book was written to help students understand the steps involved in preparing literature reviews in the social and behavioral sciences. The primary focus is on reviewing original research published in academic journals and on its relationship to theoretical literature. However, most of the guidelines presented here can also be applied to reviews of other kinds of source materials.

Audience for this Book

This book was written for students who are required to “do library research” and write literature reviews as term papers in content-area classes in the social and behavioral sciences. Often, their previous training has not prepared them to search databases for reports of original research and related theoretical literature, analyze these particular types of literature, and synthesize them into a cohesive narrative. Instead, they are often taught how to use secondary sources such as encyclopedias, reports in the mass media, and books that synthesize the work of others. In addition, they are usually not taught the conventions for writing papers in the social and behavioral sciences. This book is designed to fill this gap by giving students detailed, step-by-step guidance on how to write reviews of primary source materials.

Students who are beginning to work on their theses and dissertations will also benefit from this book if they have not previously received instruction in how to prepare critical analyses of published research and the theories on which it is based. Undertaking a thesis or dissertation is stressful. This book should serve as a source of calm and logic as they begin to work on their literature review chapter.

Finally, those who are preparing to write literature reviews for possible publication in journals as well as those who need to include literature reviews in grant proposals will find many portions of this book helpful.

Unique Features

The following features make this book unique among textbooks designed to teach analytical writing.

- The book’s focus is on writing critical reviews of original research.
- It guides students through a systematic, multistep writing process.
- The steps and guidelines are organized sequentially and illustrated with examples from a wide range of academic journals.
- Each chapter is designed to help students develop a set of specific products that will contribute toward a competent literature review.

Notes to the Instructor

Many colleges and universities have adopted a “writing-across-the-curriculum” program, in which all students are required to write papers in all courses. While the goals of such a program are admirable, many instructors are pressed for time to cover just the traditional content of their courses and have little time to teach writing. Such instructors will find this book useful because the explicit steps in the writing process illustrated with examples throughout this book make it possible for students to use it largely on their own. In addition, many professors “naturally” write well, but have given little thought and have no training in *how to teach writing*. Used as a supplement, this book solves that dilemma by providing a detailed guide to the writing process.

Much of what most of us know about writing was learned through what Kamhi-Stein (1997) calls the “one-shot writing assignment” (p. 52).¹ This is where the instructor gives an assignment at the beginning of the term, using the writing prompt, “Write a paper about <*specific topic*>.” Conceptually, we tend to view this type of assignment as a single task, even though we may go through several discrete steps in the process of completing it. In fact, when writing papers that involve library research, the quality of the finished product depends in large measure on the care with which we undertake each of these steps.

In this book, the activities at the end of each chapter are designed to guide students through these various steps or stages of the writing process. These activities can be recast as a series of tasks that can easily be incorporated into the syllabus of a survey course in a specific discipline, as a multi-step writing assignment. Thus, this book has two complementary audiences: (a) instructors who may want to incorporate this multi-step writing approach into their course syllabus and (b) students, working independently, who may need help in planning and implementing the various stages involved in completing a major writing assignment such as the literature review chapter of a thesis or dissertation.

Acknowledgments

Over the past several years, I have watched with delight as my daughter, Melisa, blossomed into the wonderfully creative and independent writer that she is today, and it is with great pride and deep gratitude that I acknowledge her assistance with this book. Her help in ensuring the accuracy of the citations and references saved me some valuable time, but more important, it made me realize in a personal way the benefits that can come from role modeling. I also appreciate the patience and cooperation of Jim Rodacker and Janine Galvan for being willing

to adjust schedules (often at the last minute) and tolerate a totally self-absorbed and driven writer for the extended period that it took to write this book. I also thank my supervisor, Dr. Theodore J. Crovello, for allowing me to schedule days off when I needed them and for encouraging me to find ways to continue to pursue my professional and academic interests, even while working as an administrator.

I am indebted to my editor, Dr. Fred Pycszak, for suggesting the topic for this book and for his generous assistance with the research design content of Chapters 1 and 5. I am also indebted to my colleagues on the faculty of California State University, Los Angeles, especially Drs. Marguerite Ann Snow and Lia D. Kamhi-Stein, whose work on the multistep writing approach inspired the book's organization.² All three of these individuals offered countless helpful suggestions, most of which are now part of the final manuscript. Errors and omissions, of course, remain my responsibility.

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Los Angeles, California

¹ Kamhi-Stein, L. D. (1997). Redesigning the writing assignment in general education courses. *College ESL*, 7(1), 49-61.

² Dr. Marguerite Ann Snow was director of Project LEAP: Learning-English-for-Academic-Purposes. This was a curricular reform project at California State University, Los Angeles, funded by a grant from the Fund for the Improvement of Postsecondary Education (FIPSE), 1991-1997. For more information about this project, see Snow, M. A. (1994). *Project LEAP training manual. Year three*. Los Angeles: Fund for the Improvement of Postsecondary Education and California State University, Los Angeles, and Snow, M. A. & Kamhi-Stein, L. D. (Eds.), *Teaching academic literacy skills: Strategies for content faculty*. Los Angeles: Fund for the Improvement of Postsecondary Education and California State University, Los Angeles.

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Chapter 1

An Introduction to Writing Reviews of Academic Literature

In this book, you will be learning how to write a review of the literature using primary (original) sources of information in the social and behavioral sciences. By far, the most common primary sources are reports of empirical research published in academic journals. This chapter begins with a brief overview of this type of source. It is followed by brief descriptions of four other types of literature found in journals: theoretical articles, review articles, anecdotal reports, and reports on professional practices and standards. This is followed by a brief discussion of the writing process you will be using as you write your review. This discussion also serves as an overview of the rest of the book, which was designed as a guide for students who are new to the specialized requirements of writing a literature review in the social and behavioral sciences.

An Introduction to Reviewing Primary Sources

Why Focus on Empirical Research Reports?

The focus of this book is on *original* reports of research found in academic journals. They are *original* because they are the first published accounts of the research. As such, they are *primary sources* of information, providing detailed reports on the methodology used in the research and detailed descriptions and discussions of the findings. In contrast, research summaries reported in textbooks, popular magazines, and newspapers as well as on television and radio are usually *secondary sources*, which often provide only global descriptions of results with few details on the methodology used to obtain them. As scholars, you will want to emphasize primary sources when you review the literature on a particular topic. In fact, your instructor may require you to cite these sources exclusively in your written reviews of literature.

Journals in the social and behavioral sciences abound with original reports of *empirical research*. The term *empirical* refers to *observation* while the term *empirical research* refers to *systematic observation*. Research is systematic because researchers plan in advance whom to observe, for what characteristics to observe, how to observe, and so on. While such research is the foundation of any science, one could reasonably argue that all empirical research is inherently flawed and, hence, the results obtained with research should be interpreted with caution. For example, listed below are three major problematic issues that arise in almost all empirical studies and the problems they pose for students who review them.

- *Issue 1: Sampling.* Most researchers study only a sample and infer that the results apply to some larger group (often called the population). Furthermore, most use samples with some kind of bias that makes them unrepresentative of the populations of interest.¹ For instance, suppose a professor conducted research using only students in his or her introductory psychology class or suppose a researcher mailed a questionnaire and obtained only a 40% return. Clearly, these samples might not be representative of the populations of interest.

Problem: A reviewer needs to consider sampling bias, if there is any, in interpreting the results of a study. Deciding how much trust to put in the results of a study based on a biased sample is a highly subjective judgment.

- *Issue 2: Measurement.* Almost all instruments used for measurement in empirical research should be presumed to be flawed to some extent. For example, suppose a researcher uses a self-report questionnaire to measure the incidence of marijuana use on a campus. Even if respondents are assured that their responses are confidential and anonymous, some might not want to reveal their illegal behavior. On the other hand, others might be tempted to brag about doing something illegal even if they seldom or never do it. So what are the alternatives? One is to conduct personal interviews, but this measurement technique also calls for revelation of an illegal activity. Another alternative is a covert observation, but this technique might be unethical. On the other hand, if the observation is not covert, participants might change their behavior because they know they are being observed. As you can see, there is no perfect solution.

Problem: A reviewer needs to consider the possibilities for error in measurement. Ask yourself whether the method of measurement seems sound. Did the researcher use more than one method of measurement? If so, do the various methods yield consistent results?

- *Issue 3: Problem identification.* Researchers usually examine only a piece of a problem—often just a very small piece. Here is an example: Suppose a researcher wants to study the use of rewards in the classroom and its effects on creativity. At first, this sounds manageable as a research problem until one considers that there are many kinds of rewards—many kinds and levels of praise, many types of prized objects that might be given, and so on. Another issue is that there are many different ways in which creativity can be expressed. For example, creativity is expressed differently in the visual arts, in dance, and in music. Additional forms of creativity can be expressed in the

¹ If you have taken a course in research methods or statistics, you know that random sampling (like drawing names out of a hat) is preferred over biased sampling. Note, however, that random sampling introduces chance errors, which can be assessed with inferential statistics, a topic that is beyond the scope of this book.

physical sciences, in oral expression, written communication, and so on. No researcher has the resources to examine all of these. Instead, he or she will probably have to select one or two types of rewards and one or two manifestations of creativity and examine them in a limited number of classrooms.

Problem: A reviewer needs to synthesize the various research reports on narrowly defined problems in a given area, looking for consistencies and discrepancies from report to report while keeping in mind that each researcher defined his or her problem in a somewhat different way from the others. Due to the fact that empirical research provides only approximations and degrees of evidence on research problems that are necessarily limited in scope, creating a synthesis is like trying to put together a jigsaw puzzle, knowing in advance that most of the pieces are missing and that many of the available pieces are not fully formed.

Considering the three issues presented above, you might be tempted to conclude that reviewing original reports of empirical research is difficult. Undoubtedly, it sometimes is. However, if you pick a topic of interest to you and thoroughly read the research on that topic, you will soon become immersed in a fascinating project. On the vast majority of topics in the social and behavioral sciences, there are at least minor disagreements about the interpretation of the available research data and, often, major disagreements. Hence, you may soon find yourself acting like a juror, deliberating about which researchers seem to have the most cohesive and logical arguments, which ones have the strongest evidence and so on.

You might also incorrectly conclude that only students who have intensively studied research methods and statistics can make sense of original research reports. While such a background undoubtedly is helpful, this book was written with the assumption that any intelligent, careful reader can make sense out of a body of empirical research if he or she reads carefully and extensively on the topic selected for review. Authors of reports of original research do not just present statistics in isolation. Instead, they usually provide definitions of basic concepts, discuss their theoretical orientations, describe their reasoning for approaching their research in the way they did, and offer interpretations moderated by discussions of the limitations of their methodology. In fact, it is common for these writers to provide separate sections, usually near the end of their reports, in which they pause to discuss the methodological limitations of their studies and the implications of the limitations for interpreting their results. In other words, a skilled author of a report on original empirical research will guide you through the material even if you do not understand all the research jargon and statistics.

One final consideration: It is essential that you carefully and thoroughly read all the research articles that you cite. Reading only the brief abstracts (summaries) at the beginning of such articles may mislead you because of the lack

of detail and, therefore, cause you to mislead the readers of your literature review. Thus, it is your ethical responsibility to read each cited reference in its entirety.

Another Kind of Primary Source: Theoretical Articles

Not every journal article is a report of original research. In fact, some articles are written for the explicit purpose of evaluating an existing theory or to propose a new one. Remember, a *theory* is a general explanation of why variables work together, how they are related to each other, and especially, how they influence each other. As a unifying construct, a theory helps to explain how seemingly unrelated empirical observations tie together and make sense. Here is a brief example:

Weiss (1975) proposed a *relational theory of loneliness*. Among other things, this theory distinguishes between *emotional loneliness* (utter loneliness created by the lack of a close emotional attachment to another person) and *social loneliness* (feelings of isolation and loneliness created by the absence of a close social network). This theory has important implications for many areas of social and behavioral research. For example, if the theory is correct, it would predict that someone who is in bereavement due to the death of a spouse with whom they had a close emotional attachment will experience utter loneliness that cannot be moderated through mere social support.²

Notice two things about the example given above. First, the prediction based on the theory runs counter to this common sense notion: that those who are lonely due to the loss of a significant other will feel less lonely with the social support of family and friends. The theory suggests that this notion is only partially true at best. Specifically, it suggests that family and friends will be able to lessen only *social loneliness* but be ineffective in lessening the more deeply felt and potentially devastating *emotional loneliness*. Note that it is not uncommon for a theory to lead to predictions that run counter to common sense. In fact, this is a hallmark of theories that make important contributions to understanding human affairs and our physical world.

Second, Weiss' theory can be tested with empirical research. A researcher can study those who have lost significant others, asking them about how lonely they feel and the types and strength of support they receive. To be useful, a theory should be testable with empirical methods, which helps the scientific community determine the extent of its validity.

² This example is based on material in Stroebe, W., Stroebe, M., Abakoumkin, G., & Schut, H. (1996). The role of loneliness and social support in adjustment to loss: A test of attachment versus Stress Theory. *Journal of Personality and Social Psychology*, 70, 1241-1249. Also, see Weiss, R.S. (1975). *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.

Your job in reviewing literature will be made easier if you identify the major theories that apply to your topic of interest. Writers of empirical research reports often identify underlying theories and discuss whether their results are consistent with them. Following up on the leads they give you in their references to the theoretical literature will provide you with a framework for thinking about the bits and pieces of evidence you find in various reports about specific, usually narrow, research projects that are published in academic journals. In fact, you might choose to build your literature review around one or more theories.

It is important to note that a literature review that contributes to a better understanding of one or more theories has the potential to make an important contribution to the writer's field because theories often have broad implications for many areas of concern in human affairs.

Literature Review Articles

Journals often carry literature review articles,³ that is, articles that review the literature on a specific topic—much like the literature review that you will be writing while using this book. Most journals that publish review articles set a relatively high standard for accepting such articles. Not only should they be well-written analytical narratives that bring readers up to date on what is known about a given topic, but they should also provide fresh insights that advance knowledge. These insights may take many forms. Some major ones are: resolving conflicts among studies that previously seemed to contradict each other, identifying new ways to interpret research results on a topic, and laying out a path for future research that has the potential to advance the field significantly. As a result, going through the steps of preparing a literature review is not an easy way to get published in a journal. In fact, when you begin reviewing the literature on a topic, there is no guarantee that you will arrive at the level of insight that will pass the scrutiny of a journal's editorial board. However, if you follow the guidelines outlined in this book, which emphasize analyzing literature (casting a critical eye on it; pulling it apart, sometimes into pieces and bits; and putting them back together in a new form), you stand a better chance than the average academic writer of producing a review suitable for publication.

It is worth noting that sometimes students are discouraged when they find that their topic has recently been reviewed in an academic journal. They may feel that if it was already reviewed, they should select a different topic. This is not necessarily a wise decision. Instead, these students usually should feel fortunate to have the advantage of someone else's labor and insights—someone that can be cited, someone on whose work they can build or with whom they can agree or disagree. Writing is an individual process, so two people reviewing the same body

³ Some journals also carry book reviews, test reviews, and reviews of other products and services. These will not be considered in this book. Hence, the term "review article" in this book refers only to a *literature* review article.

of literature are likely to produce distinctly different, but potentially equally worthy reviews.⁴

Anecdotal Reports

As you review the literature on a specific topic, you may encounter articles that are built on anecdotal accounts of personal experiences. An anecdote is a description of an experience that happened to be noticed (as opposed to an observation that is based on research, in which there was considerable planning regarding whom and what to observe as well as when to observe a particular phenomenon in order to gather the best information). Anecdotal accounts are most common in journals aimed at practicing professionals such as clinical psychologists, social workers, and teachers. For example, a teacher might write a journal article describing his or her experiences with a severely underachieving student who bloomed academically while in his or her classroom. Other teachers may find this interesting and worth reading as a source of potential ideas, but as a contribution to science, such anecdotes are seriously deficient. Without control and comparison, we do not know to what extent this teacher has contributed to the student's progress, if at all. Perhaps the student would have bloomed without the teacher's efforts because of improved conditions at home or because of a prescription drug for hyperactivity prescribed by a physician without the teacher's knowledge. Given these limitations, anecdotal reports should be used very sparingly in literature reviews, and when they are cited, they should be clearly labeled as being anecdotal.

Reports on Professional Practices and Standards

Some journals aimed at practicing professionals publish reports on practices and standards such as newly adopted curriculum standards for mathematics instruction in a state, or proposed legislation to allow clinical psychologists to prescribe prescription drugs. When these types of issues are relevant to a topic being reviewed, they often merit discussion in a literature review.

The Writing Process

Now that we have considered the major types of materials you will be reviewing (reports of empirical research, theoretical articles, literature review articles, articles based on anecdotal evidence, and reports on professional practices and standards), we will briefly consider the process you will follow in this book.

An important, and often overlooked, distinction is made in this book between *conducting* a literature review (i.e., locating literature, reading it, and

⁴ Keep in mind that empirical knowledge is an ever-evolving process—not a set of facts. Nothing is proven by empirical research; rather, we use research to arrive at varying degrees of confidence. Thus, researchers may differ in their *interpretations* even if they review the same literature.