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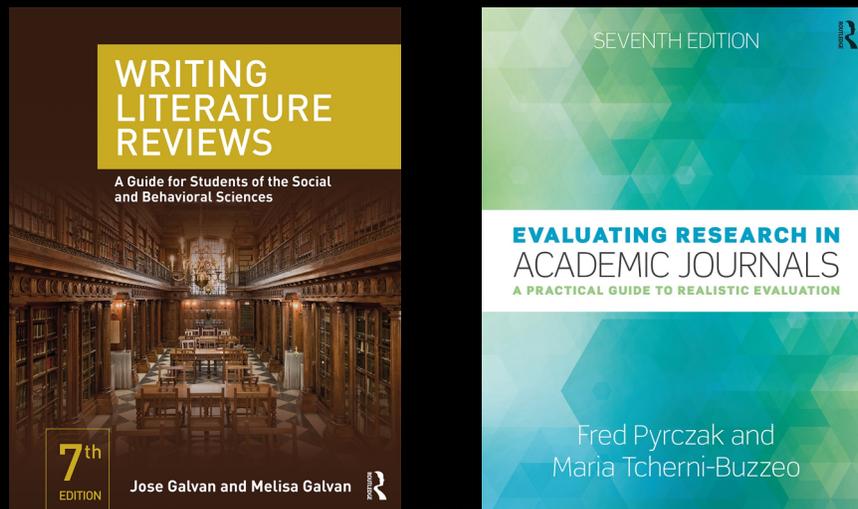
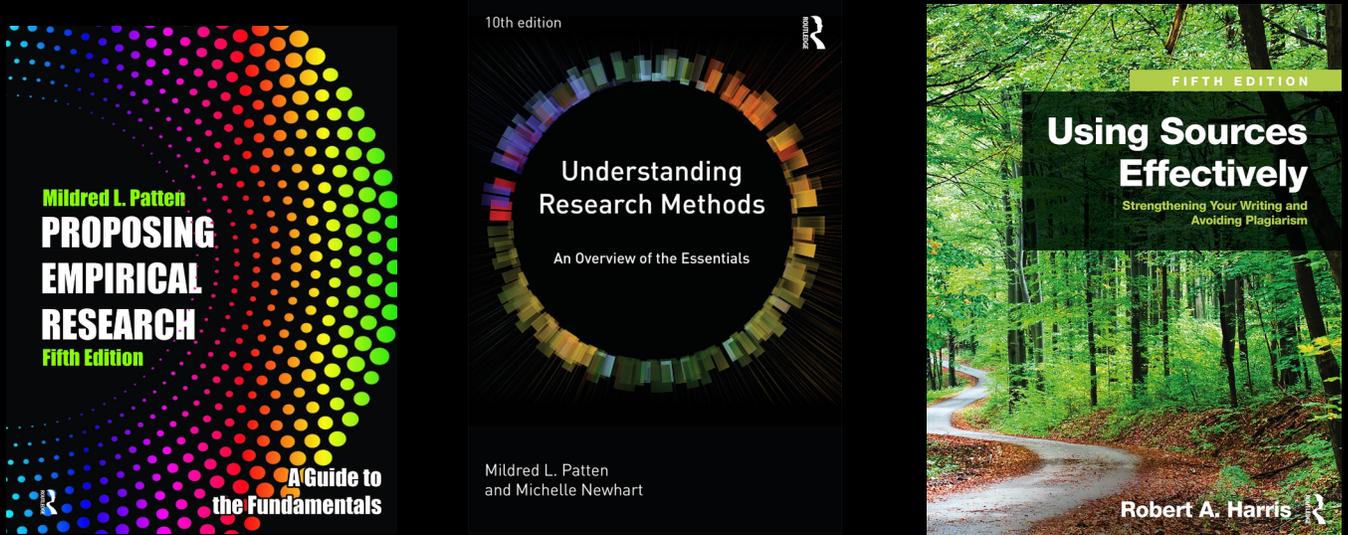
Approaching Research for the First Time



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Introduction

Thank you for downloading our selection of chapters focusing on approaching research for the first time.

This short collection offers students guidance on how to plan and write up their first research project, offering guidance and insight for what can be a challenging piece of work.

Taken from *Proposing Empirical Research*, the first chapter offers a brief introduction to the first steps in planning a research project. The Structure of a Research Report, taken from the bestselling *Understanding Research Methods*, provides an overview of the essentials of structuring a typical research report.

The third extract, taken from *Using Sources Effectively*, demonstrates the importance of improving your writing skills in order to get the most from your sources. Chapter four, Guidelines for Writing a First Draft, helps you find your way to putting all your work together into a report. Finally, taken from *Evaluating Research in Academic Journals*, chapter five gives you insights into key considerations you can use in your own report writing as well as areas to think about when evaluating other's work.

We hope you enjoy reading through these selected chapters; be sure to click through and learn more about each title. Each chapter is just a small sample of our content on research methods, [visit our website](#) to find out more about the books these are excerpted from and to browse our full selection of books in this area.

Note to Readers

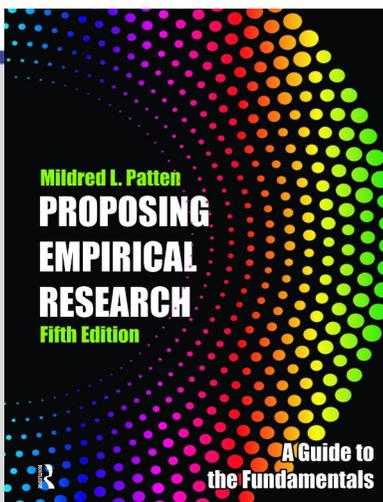
References from the original chapters have not been included in this text. For a fully-referenced version of each chapter, including footnotes, bibliographies, references and endnotes, please see the published title. Links to purchase each specific title can be found on the first page of each chapter. As you read through this Freebook, you will notice that some excerpts reference previous chapters – please note that these are references to the original text and not the Freebook.



CHAPTER

1

WHAT IS EMPIRICAL RESEARCH?



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Proposing Empirical Research
by Mildred L. Patton.

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WHAT IS EMPIRICAL RESEARCH?

Excerpted from *Proposing Empirical Research*

The term *empiricism* refers to making *observations* to obtain knowledge. In everyday life, we all make informal observations of the people and things around us, and very often, we use these observations as a basis for making decisions. For example, a teacher might observe that his or her students seem bored and decide to switch to a livelier instructional activity.

The term *empirical research* refers to making *planned* observations. By following careful plans for making observations, we engage in a systematic, thoughtful process that deserves to be called *research*.

First, we need to plan *what to observe*. For example, we might wish to observe boredom in the classroom. What other variables should we plan to observe in order to aid our understanding of boredom? Maybe we should consider skill areas, such as math versus creative drawing. Maybe we should consider teaching styles or the match between each student's abilities and the instructional materials that are assigned to him or her. The possibilities are almost endless, so a researcher needs to select the variables that seem most promising.

Second, we need to plan *whom to observe*. For example, to study boredom in the classroom, we would plan what types of students to observe (e.g., elementary and/or secondary, middle-class and/or lower-socioeconomic-status students, and so on).

Third, we need to plan *how to observe*. How will we measure boredom (as well as other variables that might be related to boredom)? Should we ask students directly if they are bored using a questionnaire? By interviewing them? Should we observe the expressions on their faces and infer whether students are bored? If so, who will make the observations, and on what basis will they make the inferences (i.e., what types of facial expressions will be counted as indicating boredom)?

Next, we need to plan *when to observe*. Observations made on a hot Friday afternoon might yield very different results from those made on a clear spring morning.

Finally, we should *plan how to analyze the data* and interpret them. Will we calculate the percentage of students who appear bored while participating in cooperative group activities versus how many appear bored when working individually on worksheets? Will we try to correlate boredom with other variables such as socioeconomic status?



WHAT IS EMPIRICAL RESEARCH?

Excerpted from *Proposing Empirical Research*

Exercise for Topic 1

Directions: If you already have some ideas for empirical research projects, briefly describe them below. If possible, describe two or more (using additional space if necessary). The ideas you write here will give you talking points for classroom discussions and should be thought of as only tentative. As you work through this book, you will probably decide to greatly modify or even abandon your responses to this exercise in favor of more suitable ones.

First Set of Ideas

1. What might you observe? The main variable (e.g., boredom in the classroom) is:

Other variables (e.g., teaching styles) are:

2. Whom might you observe?

3. How might you observe your main variable (e.g., a test, an interview)?

4. When might you make the observations?

Second Set of Ideas:

1. What might you observe? The main variable (e.g., boredom in the classroom) is:

Other variables (e.g., teaching styles) are:

2. Whom might you observe?

3. How might you observe your main variable (e.g., a test, an interview)?

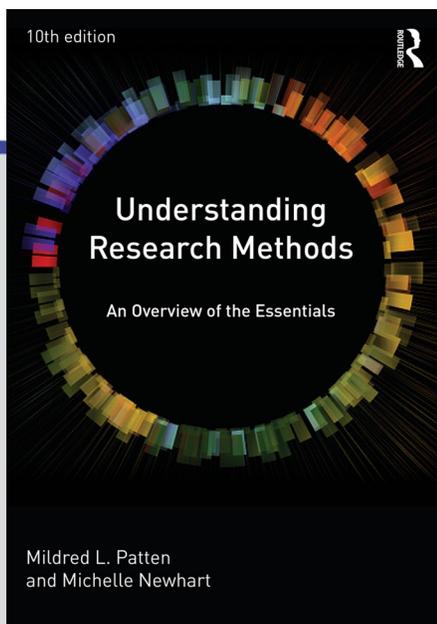
4. When might you make the observations?



CHAPTER

2

THE STRUCTURE OF A RESEARCH REPORT



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Understanding Research Methods
by Mildred L. Patten and Michelle Newhart.

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THE STRUCTURE OF THE RESEARCH REPORT

Excerpted from *Understanding Research Methods*

This topic describes the structure of a typical research report. Elements of a standard research report are Title, Abstract, Introduction, Literature Review, Method, Results, and Discussion. Reports end with a References section listing all sources that have been used within the report. Each element is covered one by one below.

The first element is the **Title**. Title wording and other items to be placed on the title page are likely to vary based on the style guide used by journals or instructions from a professor or review committee. Most likely, the title page includes the author's name and affiliation at minimum. It may also include word count, pages, or other information. Be sure to check the applicable source for any specific instructions. A typical title is concise, consisting of about 10 to 15 words, and names the major variable(s). Populations of special interest may also be mentioned in a title. This can be seen in Example 1:

Example 1

Title of a research report: The Relationship Between Political Activism and Socioeconomic Status Among Asian American Voters

The title of this study states the main variables are (1) political activism and (2) socioeconomic status, and the population consists of Asian American voters. Notice that the title in Example 1 does *not* describe the results of the research. In most cases, this is appropriate because the results of research are usually too complex to summarize in a short title. The typical parts of a research report that follow Title are shown in Table 81.1.

Most research reports begin with an **Abstract**. This is a summary designed to give readers a brief overview of all parts of the report. Abstracts for journal submissions typically have word limits between 100 and 300 words. The goal of an abstract is to help researchers and students quickly determine whether the research is of interest to them. It often includes details about who is included in the study, the basic gist of the research question, its main components, the methods used to answer it, and a mention of the most important findings. Writing abstracts is covered in more detail in the next topic.

The abstract is followed by an **Introduction**. In short reports such as journal articles and term projects, the introduction contains the **Literature Review** (see Part 2 of this book on reviewing literature).¹ Preparing introductions and literature reviews for research reports is covered in Topic 83 in this book. There is often no main heading for the introduction; it begins immediately after the abstract. In longer reports, the introduction may provide an overview of the topic and its



THE STRUCTURE OF THE RESEARCH REPORT

Excerpted from *Understanding Research Methods*

history, and the literature review may be labeled and stand on its own. Some Literature Review sections include subheadings that indicate specific topics of related literature that are being reviewed. Consider the length of your publication, or if you are submitting an article for publication, and review other articles as well as the author guidelines for specific journals when deciding how to label this section of your research report.

TABLE 81.1 The Typical Parts of a Research Report

Title
Abstract
Introduction
<i>Literature Review</i>
Method
<i>Participants</i>
<i>Measures¹</i>
<i>Procedure (optional)</i>
<i>Data Analysis (optional)</i>
Results
Discussion
References

¹Some authors of research reports use the term *instrumentation* instead of *measures* to refer to measurement tools.

Following the introduction/literature review is the **Method** section, which usually has its own major heading. Three areas of the methods used are typically covered here: who participated in the research, what measures were used, and either what procedure was used to carry out or analyze the research (if experiments) or how the data was analyzed (in other forms of qualitative and quantitative research). These are typically covered in this order and given subheadings. Under the subheading *Participants*, researchers state the number of participants, how they were selected, and demographics deemed relevant, such as age and gender. Depending on the nature of the research, the sample may be compared with known parameters of the population, and many writers will create summary tables to help the reader visually see the composition of participants. Writing the description of the participants is described in more detail in Topic 84.



THE STRUCTURE OF THE RESEARCH REPORT

Excerpted from *Understanding Research Methods*

Measures is the next subsection under Method. Here the measurement tools used in the research are described. Quantitative researchers use highly structured measures and may focus on information about those measures that establish validity and reliability. Qualitative researchers use less structured measures, which may be described in this section, including how they were formulated. Some qualitative or quantitative papers may include the full measure (survey or semi-structured interview schedule) as an appendix to offer more information and greater transparency about the research process. Describing measures in quantitative and qualitative research reports is covered in Topic 85.

Procedure is an optional subsection under the main heading of Method. This subsection follows Measures and may be used to describe any physical steps taken by the researcher to conduct the research. For instance, if treatments were given in an experiment, the treatments could be described in detail in this subsection.

Data Analysis may be an additional subsection under the main heading of Method, in which the steps taken to analyze the data are described. This subsection is optional in quantitative research when standard statistical techniques are used, but it is usually needed for describing more about the type of qualitative research used (e.g., describing how grounded theory or consensual qualitative research was implemented to analyze the data; see Topics 48 and 49).

Results is the next major heading. Results present the data with commentary that explains what the data says. In quantitative results, this includes tables presenting the statistics results. Qualitative results may use visual representations of data, but are more likely to present the themes and quotes that support findings. Considerations in presenting the results of research are described in Topic 86.

In the final major heading, **Discussion**, researchers move away from presenting the details of the findings, now focusing on their interpretations of the outcomes of their research and its significance. See Topic 87 for guidelines on writing the discussion. The **References** conclude a research report by citing all sources used in the report (see Appendix E and F for information on citing references.)

Topic Review

1. Should a title describe the results of the research?
2. The title is usually followed by what?
3. A typical title contains about how many words?



THE STRUCTURE OF THE RESEARCH REPORT

Excerpted from *Understanding Research Methods*

4. Is *Participants* a “major heading” or a “subheading”?
5. The measurement tools are described in which subsection?
6. Is *Procedure* an optional subheading?
7. Researchers present their interpretations of the outcomes of their research under which major heading?

Discussion Question

1. Consider this title for a research report: “Improving Mathematics Achievement.” In your opinion, is the title adequate? Explain what might improve it.

Research Planning

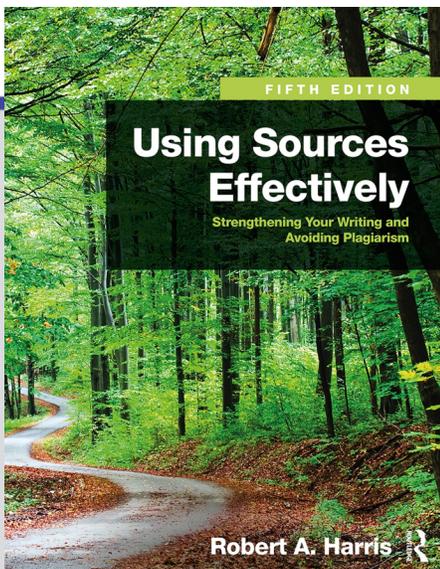
Examine a research article related to the topic of your research. Does it follow the exact structure described in this topic? Explain. (Note: This topic describes common practices frequently followed by researchers; variations in structure are often permitted by journal editors as well as professors supervising research conducted as term projects.)



CHAPTER

3

THE IMPORTANCE OF USING SOURCES EFFECTIVELY



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Using Sources Effectively
by Robert A. Harris

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THE IMPORTANCE OF USING SOURCES EFFECTIVELY

Excerpted from *Using Sources Effectively*

I don't know what I think about something until I write about it. And I can't write about something until I find out what others think about it.

—Anonymous

You hold in your hands the key to unimaginable power. Do you think I'm exaggerating? Then consider this. The world is controlled by those few people—probably fewer than 5 percent—who can write really well. Think about it. Much of the information you encounter involves written text. Books and magazines and scholarly journals and newspapers and blogs and Tweets and laws and court verdicts and billboard advertisements and menus and product labels are obvious examples. However, speeches and TV shows and movies and Internet advertisements—all these also began as written documents, often based on research. The influence of those who can write well is inestimable.

Yes, this book will help you write better research papers and cite your sources accurately, but it's also much more than that. It offers you the opportunity to write everything better, and it will help you to think better, too. Here's what to look for in this chapter:

- Writing a research paper helps to improve your writing skills.
- Researching brings you new ideas and perspectives.
- Using sources in a paper adds strength, interest, and context to your own ideas.
- Citing sources aids your reader and helps you to avoid plagiarism.
- Writing with sources develops your thinking and analyzing skills.

1.1 Why Learn to Write Well?

As a first question, let's think about why you should put a major effort into learning to write. You might already consider yourself a pretty good writer, and perhaps you are.

However, improving your writing—and researching—skills will prove valuable to you for the rest of your life. Whatever profession you pursue, you almost certainly will be writing heavily for your entire career. Regular writing needs include meeting minutes, reports, studies, survey analyses, and hundreds of e-mails a day that must be responded to quickly and efficiently—and clearly.

Writing Is a Thinking Process

It has been said that we really do not know what we think about something until we write about it. Writing requires a deeper and more careful thought process than



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does speaking or even meditating about a topic. By writing down your ideas, you clarify them to yourself or even discover them. More than one student has remarked, “I never knew I thought that,” after writing an essay. Writing, then, is an opportunity to strengthen your thinking ability and to extend your mind, to gain a wider view of a subject, to find personal engagement with the world of ideas, even to make the unknown interesting.

Just above I told you that the power brokers of the world are the people who can write well. Now let me tell you another secret. Once you learn to write well, not only will your formal, written ideas have more impact, but your off-the-cuff speeches, your on-the-fly You-Tube videos, and even your everyday conversations will also be much more effective, focused, and, yes, powerful because you will know how to present your ideas more clearly and coherently. You might know from personal experience that the message you intended to send is not always the message that was received. Learning to write better, including working with the ideas you encounter through research, will improve your clarity of thought and give you the circumspection that will enable you to communicate more effectively.

And there is one more reason you should be eager to write well. That’s so other people will actually read what you write. The competition for people’s eyeballs is enormous. There are millions of books and more millions of journal articles published each year— and that’s not even mentioning everything on the Internet. Why should anyone read your stuff? If you put an effort into learning and applying the material in this book, your writing will stand out.

But if you don’t care enough to learn to write well, no one will care what you think because no one will read what you write.

Writing Is a Learning Process

Writing is a natural, inseparable part of learning, providing clarity to thinking and solidity to knowing. Writing involves the collection and organization of ideas and thoughts, the analysis of statements and evidence, and the comparing and contrasting of conflicting claims. All of these activities help you learn about a subject. Where before you may have believed that some fact had been clearly established, you discover by researching and writing about it that there are complications to the supposed fact or even more credible alternative explanations of the data behind it.

The act of wide reading, whether in an area of controversy or not, will help you add to your personal database of knowledge and your understanding of the

If you wanted to become a good auto mechanic, you'd study hard to learn how to do it well. So, if you want to be a good writer, study hard how to learn.



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world. When you write a paper that synthesizes your reading, you will learn even more about your topic as you sort out the better arguments from the weaker ones. You will also view the world with more understanding as you gain knowledge. As the proverb says, “The more you know, the better you can see.”

Writing Develops Lifelong Skills

The simple truth is this: As an educated person in an ever-more information-driven world, you will be writing for the rest of your life. By developing your writing skills now, you will acquire the competence you need to work effectively in the future. Whatever form your writing eventually takes—whether keyboard, dictation, or a new mind-reading software application—you will need to know how to use all the skills of writing. Thinking, analyzing, organizing, reasoning, using examples, exposing fallacies—all these and many others are the writing skills that will allow you not just to survive but to flourish.

Writing a research paper also gives you practice in making a subject interesting. In your future writing career, not every topic you are handed will be of interest to you. The subject may not even be immediately interesting to the targeted readers. It is important, then, for you to develop the ability to make a subject interesting both to yourself and to your readers. The more practice you have doing this now, the better you will become at it and the more you will be able to enjoy writing on any topic.

1.2 Why Learn Research-Based Writing?

Learning how to incorporate research sources into a coherent argument is one of the most amazing opportunities you will have in your educational experience. By improving your ability to frame a research problem, locate relevant sources, work with those sources, and write a persuasive paper based on them, you will be developing a host of skills that will serve you well for the rest of your life. Just as swimming is said to be such good exercise because it uses so many different muscles, research-based writing is excellent mental exercise because it develops your skills not just in writing, but in creativity, problem solving, and thinking.

When you work with sources, you learn better how to analyze what you are reading, how to evaluate the strength of arguments, and how to fit ideas together with other sources that may disagree. The process of writing a paper based on research materials broadens your understanding of how information is used and makes you more careful about accepting unsupported claims.



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Excerpted from *Using Sources Effectively*

Research Makes Writing Easier

Instead of looking at a research requirement as a complication to a writing assignment, you should be thankful. Research actually simplifies your assignment because researching a topic helps you define the issues surrounding it. You may or may not have realized the causes, effects, unexpected consequences, failed remedies, and so on that research will uncover. Some robust searching will help you discover new options, refine your tentative thoughts, gather the evidence and arguments pro and con, and understand the context of the topic. All of this information will help you to shape your research question; this in turn will help you focus your research and develop a clear, suitable thesis. Why wander in the woods in the dark when some wise research can hand you a powerful flashlight that will help you on your way?

Research-Based Writing Allows You to Contribute to the Great Conversation

Writing represents mental work (creative, analytic, or persuasive) put down in a fixed form so that others can access it at any time and make use of it. Many readers make use of others' writing simply as a means of learning, but many others use writing as building blocks for further knowledge and for their own writing and thinking. This has been true for thousands of years. As the saying goes, "We stand on the shoulders of giants." Nearly every writer makes use of the creative, analytic, or persuasive work of previous writers, building on the thinking and discoveries that have gone before.

Sidebar 1.1 What Is the Great Conversation and Why Should You Care?

The Great Conversation takes place among those who share their ideas with others, who work with the contributions of each other to add steps to the advancement of the understanding of the world. You become aware that the pathway to knowledge that you are walking on has been walked on by others also, and you take the opportunity to learn from them, react to them, agree with them, and sometimes oppose them. Source A and Source B might have differing views or data, and you discover a grand synthesis that advances humanity along the path—a grand synthesis that neither Source A nor Source B has found, nor you by yourself could have found. The Great Conversation is the working together of many minds, doing the thinking for the progress of civilization. It is your opportunity to create a legacy that will benefit your own and future generations. And it starts here, now, by learning how to write a research paper.



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Excerpted from *Using Sources Effectively*

Increasingly today, moreover, many writers are building their ideas together. Many corporations are developing knowledge-sharing cultures, where employees can use each other's ideas either by direct collaboration or through the use of knowledge management databases. Developing your writing skills empowers you to become a significant contributor to this creating and sharing of knowledge. The better writer you become, the better writing partner you will be.

Indeed, one of the most common tasks of knowledge workers in the corporate world is to work with source material—policy and procedure documents, checklists, operations manuals, repair manuals, reports, analyses, and the like—to produce revisions, updates, and extensions. Other documents need to be interpreted and responded to. It is safe to say that you are highly likely to be working with words throughout your career.

1.3 Why Use Sources in Papers?

Understanding the purpose of using sources in papers should encourage you to take the task seriously and to write better papers. Students who believe that sources serve no purpose other than to decorate or lengthen a paper are more likely to insert long quotations without taking much care to build them into the overall flow of ideas. The result of such a practice is, at best, padding and, at worst, a disjointed collage. It's the difference between the synthesis of source material and the mere presence of source material. Sources serve a number of important functions in a paper, both as part of, and in addition to, the requirement that the paper be based on research.

Let's look at some of these purposes.

Research Sources Provide Context

Suppose you walk up to two strangers and ask them, "What do you put on your strawberries?" One of them says, "Sugar," and the other says, "Cow manure." How are you to understand this discrepancy? If you think for a moment, you will see that context is crucial to interpretation—a proper understanding of events and thought processes requires knowledge of the surrounding information environment. In this case, one of the strangers puts sugar on the strawberries on the breakfast table, while the other puts cow manure on the strawberries (to fertilize them) in the patch out behind the house.

Similarly, when a scholarly paper describes, analyzes, reports, or argues some point, it does not do so in a vacuum. The topic has almost certainly been



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Excerpted from *Using Sources Effectively*

treated before, experiments may have been conducted, and other interpretations may have already been made. A first function of the use of sources, then, is to provide background information. An overview, the historical context (which may influence meaning as much as the context of the strawberry comments above), a starting point such as the definition of key concepts— these can all be provided by making use of appropriate sources. In many scholarly projects, a review of the literature is a required first part to provide a history of progress in the field, information relating to the topic, a technical context, or other background for the new material to be presented.

Sources Strengthen Your Argument

One of the myths surrounding research-based writing seems to be that citing sources is a necessary evil, an unfortunate concession required by the rules of composition for giving away credit for ideas. In fact, quite the contrary is true. Using and citing sources actually strengthens your writing in the eyes of your reader, because it demonstrates that you have performed research and have integrated the findings and ideas of others into your own argument.

First, quoting or referring to sources and then discussing them demonstrates that you are aware of other writers' positions on the topic. You are not writing in an intellectual vacuum or off the top of your head, but you have considered the ideas of others in the formulation of your own thinking. Next, using sources demonstrates that your ideas have support. Writers whose ideas parallel your argument add major timber to the intellectual house you are building for your reader. Corroboration of thinking or argument, additional facts or evidence from a third party, and the information of experts all provide powerful support to your position. Finally, using and citing sources demonstrates that you can think and argue along with scholars and other professionals and that you are able to interact with the ideas connected to your subject. Your paper's sources, then, far from being a negative, provide positive evidence for your reader about your researching, writing, and thinking ability as well as your resourcefulness.

Sources Add Interest to Your Paper

As you do your research, you will discover that sources provide much more than factual information or good analysis. Sources often contain stories, personal experiences, unique data, experimental results, tables, graphs, or other items that will add greatly to the interest of your paper. One reason to quote rather than summarize or paraphrase a source is that many times the author of the source text

The sources in a research paper are like the actors in a movie. All of them work together in an orderly way, each one contributing to the overall meaning.



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Excerpted from *Using Sources Effectively*

has an interesting, colorful, or compelling way of writing. A particular sentence or even a phrase may give just the direct and clear expression of an idea that you need. Even if the source's words are not quotable, you might make the information interesting through an appropriate summary or paraphrase.

Sources Provide You With New Ideas

Our minds need the fertilizer of new ideas if we are to be consistently productive in our intellectual lives. Another critical use of sources, then, is that they enrich your mind with new ideas, give you “food for thought,” and allow you to compare several different ways of thinking about an issue. Even if all of the research you find generally agrees with the position you are taking (and that is not likely), you will still be able to refine your own thinking by discovering the various ways of conceptualizing a given idea. More likely, you will encounter ideas and arguments you have never thought of before, providing you with the opportunity to extend your thinking. You may ultimately alter or even reject the original idea you located in your research because sources have suggested a new direction or a new interpretation that is more useful in your argument. (If you should ever develop a love for classical writers such as Plato and Aristotle, you will discover that they are famous not because they are right about everything but because, when they are wrong, they are wrong in very interesting and provocative ways. They make us think.)

Sources Keep You Up-to-Date

Imagine that you are an ornithologist in seventeenth-century England. You and your fellow bird enthusiasts delight in swans. All of them are so lovely with their white feathers. Too bad that there are no black swans, but everyone throughout Europe agrees, based on empirical observation, that all swans are white. It's been known for a long time. It's settled science.

And then in 1697 black swans are discovered outside of Europe, in Australia. Aren't you glad you keep up-to-date with the ornithology news?

All this is just to say that, as the world of knowledge advances, current thinking is modified or even replaced by new discoveries, new experiments, and new studies. Especially in the social sciences, new studies often refine, extend, or even challenge what previous studies had found. Researching your topic and locating timely, current information will help you keep up-to-date in the subject and will therefore provide you with the needed knowledge for accurate thinking and understanding. It will also give you the latest findings from which to argue the



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central idea (thesis) of your research paper.

Sources Reveal Controversies

You know the saying, “There are two sides to every argument,” meaning that every position has its pros and cons. Even this saying has two sides to it. One side claims that the saying is correct. The other side claims that it is not correct because there are almost never only two sides to a given position: Most areas of controversy have several different sides. A benefit of research and the use of your results is to expose the areas of controversy. By pointing out ideas that conflict with your position and by responding reasonably to those who disagree with your argument, you demonstrate first that you are aware of the opposition and that there is a reasonable response to it, and second that your conclusions are based on a full contemplation of all the evidence, not just on that which agrees with the case you are presenting.

Imagine reading a paper about a controversial issue that completely ignores some strong opposing arguments you have heard elsewhere. What do you think of the paper and its writer? Is the writer simply unaware of the other arguments, and hence has based the paper on partial knowledge? Or is the writer aware of them but has decided not to mention them because there is no adequate response? In blunt terms, the writer appears to be either ignorant or dishonest.

See Chapter 8 for information about how to incorporate conflicting sources into your papers.

Sources Help You Understand How Reasoned Argument Works

The more you work with sources for your research papers, the more information literate you will become. Information literacy is usually defined as the ability to locate, evaluate, and use information appropriately. But the term goes beyond these practices to include an awareness of how information itself works. Specifically, you will discover how a credible argument is assembled, what kind of evidence needs to be brought to bear, how generalizations are formed from experimental samples, and so forth. You will also learn about the role of assumptions, interpretations, and even biases in arguments. (For example, the first time you locate two books each claiming to prove beyond a doubt exactly the opposite conclusion about a controversial subject, you begin to understand much about the world of books and arguments.) Many issues are still unsettled and in flux, and your research will help you become mindful of this.



THE IMPORTANCE OF USING SOURCES EFFECTIVELY

Excerpted from *Using Sources Effectively*

1.4 Why Use Sources Effectively?

Those who study communication theory will tell you that there is a lot more going on in a research paper or article than the mere conveying of information or mounting of an argument. The way you handle information, how and when you quote, the use you make of a quotation or reference—all these tell your reader not only about your capacity for engaging information, but about your character. If you want to be believed, it is therefore crucial that you write in a way that instills confidence in what you have to say.

Effective Use Instills Trust

Before someone rises to deliver a speech, another person is almost always there to give an introduction. This has been true from the time of the ancient rhetoricians up until today. The introducer commonly provides the speaker's background, which includes such information as academic credentials and the source of the speaker's authority or experience relevant to the topic of the speech. In ancient times, this was referred to as providing the speaker's ethos, or character. In a word, the introducer gives reasons why the audience should trust the speaker.

There is a similar practice in publishing, where a book includes a preface or a foreword, often by a notable person, recommending the book to the reader. Moreover, the book jacket includes quotations from reviews favorable to the book. The result is that respected sources help to credential the author—to provide a trustworthy ethos.

When you write a scholarly article or a research paper, you do not have the advantage of another person providing you with a character reference. How you present your material, then, provides the only evidence your reader has about how trustworthy, competent, and fair you are. Not only writing instructors but virtually all careful readers can sense when sources have been carelessly grabbed and dumped into a paper with little thought or analysis. The most authoritative source with the most powerful argument can be substantially diminished by careless or ineffective use. On the other hand, if you are careful, fair, and accurate in the way you use sources, your reader is likely to conclude that you are a reliable interpreter and thinker. When your readers trust you, they are much more likely to accept your argument.

A final point about effective use comes down to authority. Because your reader does not know you or how reliable you are, you need to show that your argument is supported by respected authorities. If your research paper topic

If you treat your sources like strangers, they won't work very hard for you. If you treat them like friends, they will be loyal and help make your paper great.



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focuses on treatments for cancer, your source use will be much more effective if you use information from highly regarded sources such as the International Agency for Research on Cancer, affiliated with the World Health Organization, or the National Cancer Institute, affiliated with the National Institutes for Health, rather than someone's personal Web site of unknown trustworthiness.

Effective Use Aids Persuasion

The information age is an age of information distrust. We live in an era where misinformation (incorrect, partial, or slanted information) is rampant, and disinformation (information known to be false but presented in order to deceive) seems to be everywhere. Factoids, urban legends, and advertising hyperbole wander constantly through our information universe. A first issue in creating a persuasive argument, then, is to show that you have external evidence and arguments for your central claim. It's not just you saying this. Your readers can believe you because of the support offered by your sources.

And your sources can be believed because you have chosen them well. Therefore, discernment—separating the information sheep from the information goats—is another critical part of the research process. Never just grab a source and shove it into your paper. Evaluate each candidate source (see Chapter 2), and select only the best.

But you need to go further still to achieve the most effective use. If you are to mount a credible claim or believable analysis, you must demonstrate your ability to handle your information sources carefully and accurately. You must show that you possess adequate information-processing skills to interpret, filter, and apply credible sources effectively. In order to take your ideas seriously, your reader must come to believe that you are neither gullible nor sloppy in the way you use information. If you do these things, your argument has the best possibility for persuading your readers.

Effective Use Shows Your Engagement

Using sources effectively—choosing highly relevant quotations, introducing them clearly, and discussing them appropriately—reveals a thoughtful engagement with them after some analysis and judgment. Effective use helps to show that you have performed more than a cursory reading and a perfunctory interaction with the source. Showing that you have taken the time to understand and work with your sources, that you have taken your sources seriously, encourages your reader to take you seriously as well.



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Remember that your instructor has spent years reading papers that hastily and sometimes thoughtlessly include quotations and references that seem to be taken out of context or do not quite fit into the student's argument or that seem to be misconstrued. It is all the more important, therefore, to show by your analysis and discussion of each source that you have thought things through.

1.5 Why Cite Them All?

As you will read again in coming chapters, you must cite the source of each idea or item of information you use, whether you quote, paraphrase, summarize, or merely refer to it. There are several good reasons for this rule.

Cite to Help Your Reader

Remember that you have an audience, your reader. The primary reason for citing each use of an external source or idea is to provide a path for your readers to follow in the event they are interested in further reading. Imagine your reader encountering one of your quotations or a summary of a study and thinking, "That's really interesting. I'd like to read the whole article." Your citation makes exactly that possible. You are providing a courtesy to your reader. Alternatively, instead of interest, you may have inspired indignation in your reader: "How can Jones make that claim?" your reader may demand. Your citation allows your reader to locate the article or book and read the claim in its context.

For most of your academic papers, your instructor will be your immediate, if not your only, reader. Citations perform the same courtesy here. If your instructor becomes interested (or indignant) after reading about one of your sources, the citation points directly to the source. A look at some of your sources will also help your instructor determine how effectively and accurately you are using research material. Your instructor's comments, based on this determination, will help you write better in the future. In these cases, citing sources helps you, too.

Cite to Show Respect for Fellow Knowledge Workers

At this point in your life, you may not be thinking of yourself as a knowledge worker, either present or future. Yet that is just what you are likely to be. The industrial age has passed, and we now live in an information age where processing information and creating knowledge out of it are major tasks of most educated workers. Just as you would not want others to take and use your ideas or writing without crediting you, you should not take the ideas or writing of others without



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crediting them. It is a matter of respect.

As mentioned earlier, more and more knowledge is being created through collaboration with others. A key to the willingness of others to collaborate is the feeling that their intellectual property (their words and ideas) will be duly respected and credited. In a corporate environment, where creativity and originality are highly valued, both you and your collaborators will want to work on joint writing projects where each contributor can trust the others to give credit willingly and clearly to the others' ideas. In circumstances where coworkers believe their ideas will be stolen, they will be unlikely to share them.

Cite to Avoid Plagiarism

A fundamental requirement of academic work is that you clearly distinguish your words and ideas from those of the sources you use. Citation provides the basic mechanism of distinction. A substantial amount of plagiarism is committed unintentionally, simply because the writer did not know the rules or forms of citation. Yet the penalty for such behavior is often severe because plagiarism is considered one of the most serious forms of academic dishonesty. Therefore, out of self-interest and self-protection, you want to be sure to cite your sources. (Plagiarism and the requirements for citation to avoid it are discussed in detail in Chapter 6.)

1.6 Are Sources the Whole Idea?

At least a few students approach research paper assignments with the belief that their own ideas do not count: They think a research paper is to be filled with sources elegantly—and sometimes not so elegantly—strung together. These students seem to fear they will be graded down if even one of their own thoughts gets in the way of the sources. This idea is wrong, incorrect, and not true.

Your Thinking Is the Star

You will recall from above that sources were said to support your thinking. Think of your research paper as a major motion picture. Your thinking, perhaps your central idea, is the star, while the sources you use are the supporting cast. The most important part of a research paper is not the sources themselves but what you do with them. You should use sources to support your own line of argument, your own conclusions, your own ideas. This is your paper we are talking about, not an extended summary of other papers. You are not writing *Bartlett's Familiar*



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Quotations: That has already been done.

Another way of thinking about your use of sources is to say that just as you should honor the thinking of others by citing their ideas, so you should also honor your own thinking by presenting it clearly and supporting it with research. The sources you cite give solidity, credibility, and nuance to your presentation, but at the end of the day, even though we like your friends, we've come to hear *you* talk.

Sources Need Something to Support

To accept that your ideas are the star in a research paper is to throw down a gauntlet of challenge to yourself: You must produce the star—the ideas. That is, as you research and write, you must supply not only the central idea you wish to advance, but also the analysis, synthesis, fresh insights, interpretations, conclusions, reasons, examples, and other information that drive your central idea forward and that are supported by your research. When you bring in a source, it should have a clear role in adding weight and credibility to your line of thinking or argument.

Sources Need Interpreting

Henry Ford is credited with having said, “Thinking is the hardest work there is, which is why so few people do it.” If he is correct, that may explain why so many research papers handed in to instructors contain little more than a series of thoughtlessly pasted-together quotations. Do not let your papers descend to this level. Take the time to explain the source, to show how it fits into your discussion, and why it was important to bring it into your paper. Otherwise, you will lose most of the benefits of writing a research paper while reducing your workload only slightly.

When you think of yourself in the role of the writer of a research paper, do not picture yourself as an antiquarian collector of old quotations fit to be put on display, but as a detective, a solver of a puzzle, making sense out of many different elements of information. So much information, so many viewpoints, all this raw data in need of explanation—all the materials you locate in your research need more than just organizing; they also require sorting out and applying to a central conclusion. Much thinking and much writing must come in connection with the use of your sources as you explain the meaning, implications, and effect of each one. Forget the staplers (those who would merely staple together an assortment of source materials); you are the weaver of a beautiful and sensible tapestry. You must ultimately tell the story that the sources have helped you to discover.



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It's the Great Conversation Again

At the beginning of this chapter I said that learning to write well would put you on the doorstep to power, holding the key. Participating in the Great Conversation by working with the ideas of others will help you attain something even better: You can play a role in the advancement of civilization.

The Great Conversation means that you use your sources to go beyond them. Instead of merely collecting a bunch of sources and then summarizing or paraphrasing them and calling the result a research paper, you synthesize the ideas from disparate sources and present a new idea, conclusion, theory, interpretation—something that none of your sources by themselves thought about. Source A might disagree with source B who in turn disagrees with source C. By thinking about this controversy, you might discover a solution, a compromise, or a new approach. If you strive to use your researched writing to make a significant contribution, you just might change the course of history.

Review Questions

To see how well you understand this chapter, attempt to answer each of the following questions without referring to the text. (Write down your answers to make checking easier.) Then check your answers with the text. If you missed something important, add it to your answer.

1. What advantages are provided by learning how to write well?
2. What are the benefits sources provide to a researcher?
3. Explain how the use of sources strengthens your writing.
4. Discuss the reasons for citing sources.
5. What is meant by the statement, “Your thinking is the star”?

Questions for Thought and Discussion

Use these questions for in-class or small-group discussion or for stimulating your own thinking.

1. Think about the last paper you wrote. Apart from the new knowledge you gained about the subject, did you gain anything else, such as improved thinking skills or stronger writing skills?
2. Have you ever written a research paper where you commented very little on your sources? If so, do you think you learned less than if you had written more about the sources?



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3. Has this chapter made you more enthusiastic about writing a research paper? Why or why not?
4. Has this chapter convinced you of the value of citation? Why or why not?

Mini-Research Project: How Much Information?

Perform a Web search on one or more of the topics below. For each topic you search, answer the following questions:

A. Note the variation in the answers. What accounts for this variation? (Hints: What is the date of each page in the results list? Which factors, such as language or countries, affect the result? How do the definitions of information differ? What is the estimate based on?)

B. Which source did you finally decide to use for the answer? Why did you choose that source over the others?

1. How many scholarly journals are published now?
2. What is the total estimated number of scholarly articles ever published?
3. How much information is generated each year?
4. What is the estimated quantum of information in existence today?

A Little Rhetoric: How Much Emphasis?

One of the easy secrets to better writing is knowing that some parts of a sentence are emphasized more than other parts. The most emphasis in a sentence is placed on the end, the final word or short phrase; next is the beginning; and the least emphasis is placed on the middle.

Example 1.LR.1

Note how the emphasis on “the end” changes:

- A. The greatest emphasis in a sentence is at the end. [most emphatic]
- B. The end of a sentence gets the greatest emphasis. [second most emphatic]
- C. The greatest emphasis is at the end of a sentence. [least emphatic]

Example 1.LR.2

Note how the emphasis changes, depending on what is placed at the beginning and the end:

- A. Doe (2016) acknowledged at last that the experiment was poorly designed.
- B. At last, Doe (2016) acknowledged that the experiment was poorly designed.
- C. Doe (2016) acknowledged at last the poor design of the experiment.



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D. Doe (2016) acknowledged the poor design of the experiment at last.

Words or phrases set off by commas also gain emphasis. (A comma is sometimes thought of as a flag that says, “Slow down and pause briefly,” with the result that we pay more attention to the words near the comma.) Compare the following:

Example 1.LR.3

Note the change in emphasis of “at last.”

- A. Doe (2016) acknowledged at last that the experiment was poorly designed.
- B. Doe (2016) acknowledged, at last, that the experiment was poorly designed.

Example 1.LR.4

- A. The actor supposedly performed his own stunts.
- B. The actor, supposedly, performed his own stunts.

Now You Try

Write three sentences, moving a key word or phrase to the beginning, middle, and end. Comment on the resulting changes in emphasis.

Self-Assessments

On the following pages are several self-assessments you can take to determine your attitudes and knowledge about plagiarism and citation requirements. After you have read this book and worked through the exercises, you can take these assessments again to measure what you have learned. A preliminary assessment is valuable for learning about what you already know and what you still need to know. It also focuses your attention on the important concepts, so that as you read the book you will be on the alert. A post-assessment is valuable for discovering what you have learned. You can compare your pre- and post-scores to learn how your attitudes and knowledge have changed.

Name _____ Course _____

Self-Assessment: Researched Writing Survey

Directions: This survey is designed to discover how confident you now feel about several skills and tasks related to the writing process. There are no right or wrong answers. Please respond to each question by putting a mark at a point along the scale that best represents your opinion.

1. When you are assigned a research paper in a course, do you welcome it as an



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you put it entirely into your own words.

- True False

2. As long as you put the author's name at the end of the paragraph, you may use the author's exact words, without needing quotation marks or a block indentation.

- True False

3. In a research paper, you must cite every fact and idea that is not your own, such as the date Pearl Harbor was attacked by the Japanese.

- True False

4. If you copy a paragraph from an old work that is no longer copyrighted, you still must show it as quoted and cite it, even though it is now in the public domain.

- True False

5. Anything posted on the Web is common knowledge and therefore can be used without citation.

- True False

6. Common knowledge does not need to be cited, unless you quote the exact words of the source (such as an encyclopedia).

- True False

7. If a source presents your own opinion better than you could express it, then you can copy those words into your paper without quotation marks or citation.

- True False

8. If you summarize the general argument of a book into a paragraph of your own words, you still must cite the source.

- True False

9. Plagiarism refers only to copying a source's words without citation: You cannot plagiarize ideas.

- True False

10. There is no such thing as "unintentional plagiarism."

- True False



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11. If you copy a drawing or map and use it in your paper, you must cite the source because those are also forms of ideas.

True False

Name _____ Course _____

Self-Assessment: Plagiarism Attitude Scale

Directions: This is a measure of your opinions and attitudes about plagiarism. It is not a test. There are no right or wrong answers. Please indicate your honest opinion about each item.

1. I might accidentally commit plagiarism because I'm not sure what it is.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. Cheating on a test is a worse offense than copying a few paragraphs from a source into one's paper without citing them.

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. I would never knowingly commit plagiarism.

Strongly Agree Agree Neutral Disagree Strongly Disagree

4. Plagiarism is important only to people trying to protect their profits through copyright laws.

Strongly Agree Agree Neutral Disagree Strongly Disagree

5. If plagiarism is widespread at a school, a student would be justified in plagiarizing in order to keep up with the competition.

Strongly Agree Agree Neutral Disagree Strongly Disagree

6. If my roommate gives me permission to use his or her paper for one of my classes, I don't think there is anything wrong with doing that.

Strongly Agree Agree Neutral Disagree Strongly Disagree

7. Plagiarism is against my ethical values.

Strongly Agree Agree Neutral Disagree Strongly Disagree

8. It's okay to use something you have written in the past to fulfill a new assignment because you can't plagiarize yourself.

Strongly Agree Agree Neutral Disagree Strongly Disagree



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9. If I lend a paper to another student to look at, and then that student turns it in as his or her own and is caught, I should not be punished also.

■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree

10. Even if they never get caught, plagiarizers cheat themselves.

■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree

11. Students caught plagiarizing should be punished as harshly as other cheaters.

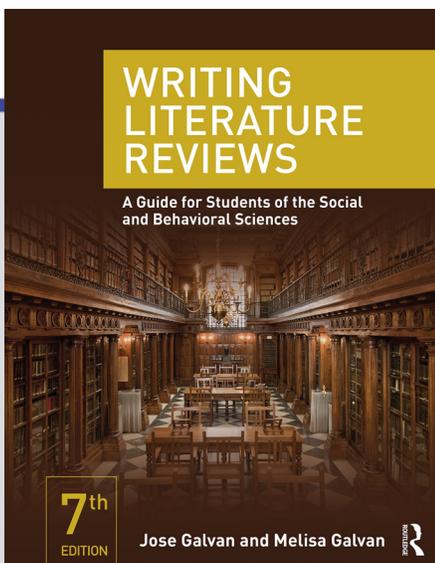
■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree



CHAPTER

4

GUIDELINES FOR WRITING A FIRST DRAFT



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Writing Literature Reviews

by Jose Galvan and Melisa Galvan

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Up to this point, you have searched the databases for literature on the topic of your review, made careful notes on specific details of the literature, and analyzed these details to identify patterns, relationships among studies, gaps in the body of literature, as well as the strengths and weaknesses of particular research studies. Then, in Chapter 9, you reorganized your notes and developed a detailed writing outline in preparation for writing your literature review.

Actually, you have already completed the most difficult steps in the writing process: the analysis and synthesis of the literature and the charting of the course of your argument. These preliminary steps constitute the intellectual groundwork in preparing a literature review. The remaining steps—drafting, editing, and redrafting—will now require you to translate the results of your intellectual labor into a narrative account of what you have found.

The guidelines in this chapter will help you to produce a first draft of your literature review. The guidelines in Chapter 11 will help you to develop a coherent essay and avoid producing a series of annotations, and it presents additional standards that relate to style, mechanics, and language usage. But first, let's consider writing the first draft.

Guideline 1: Begin by Identifying the Broad Problem Area, but Avoid Global Statements

Usually, the introduction of a literature review begins with the identification of the broad problem area under review. The rule of thumb is, “Go from the general to the specific.” However, there are limits on how general one should be in the beginning. Consider Example 10.1.1. As the beginning of a literature review on a topic in higher education, it is much too broad. It fails to identify any particular area or topic. You should avoid starting your review with such global statements.

Example 10.1.1

Fails to identify particular area or topic

Higher education is important to both the economy of the United States and to the rest of the world. Without a college education, students will be unprepared for the many advances that will take place in this millennium.

Contrast Example 10.1.1 with Example 10.1.2, which is also on a topic in education but clearly relates to the specific topic that will be reviewed, bullying in schools.



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Example 10.1.2

Relates to the specific topic being reviewed

A significant proportion of children are involved in bullying across their school years. Children who are bullied report a range of problems, including anxiety and depression (Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001), low self-esteem (Egan & Perry, 1998), reduced academic performance (Juvonen, Nishina, & Graham, 2000), and school absenteeism (Eisenberg, Neumark-Sztainer, & Perry, 2003). Bullying may also be a significant stressor associated with suicidal behavior (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007).

Guideline 2: Early in the Review, Indicate Why the Topic Being Reviewed Is Important

As early as the first paragraph in a literature review, it is desirable to indicate why the topic is important. The authors of Example 10.2.1 have done this by pointing out that their topic deals with a serious health issue.

Example 10.2.1

Beginning of a literature review indicating the importance of the topic

Vitamin D insufficiency is increasing across all age groups (Looker et al., 2008). recent research implicates vitamin D insufficiency as a risk factor for a variety of chronic diseases, including type 1 and 2 diabetes, osteoporosis, cardiovascular disease, hypertension, metabolic syndrome, and cancer (Heaney, 2008; Holick, 2006).

Of course, not all issues are of as much universal importance as the one in Example 10.2.1. Nevertheless, the topic of the review should be of importance to someone, and this should be pointed out, as in Example 10.2.2, which points to the wide use of the adjusted Rand index, or ARI, as the main reason for choosing to derive its variance as part of this study.

Guideline 3: Distinguish Between Research Findings and Other Sources of Information

If you describe points of view that are based on anecdotal evidence or personal opinions rather than on research, indicate the nature of the source. For instance,



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Example 10.2.2

Beginning of a literature review indicating the importance of the topic

The measure of choice for determining the adequacy of a partition of observations into groups is the adjusted Rand index (ARI; Hubert & Arabie, 1985). The article introducing the ARI is the most highly cited paper ever published in the *Journal of Classification* with 2,756 citations, while a subsequent paper discussing properties of the ARI by Steinley (2004) is in the top 10% of cited papers published in *Psychological Methods* since 2004 with 144 citations. In this article, we derive the variance of the ARI, providing a critical component to the 30-year old measure. After the variance is derived, a simulation exploring the adequacy of using the normal approximation for inference is conducted.

the three statements in Example 10.3.1 contain key words that indicate that the material is based on personal points of view (not research)—“speculated,” “has been suggested that,” and “personal experience.”

Example 10.3.1

Beginnings of statements that indicate that the material that follows is based in personal points of view (not research)

“Doe (2016) speculated that . . .”

“It has been suggested that . . . (Smith, 2015).”

“Black (2014) related a personal experience, which indicated that . . .”

Contrast the statements in Example 10.3.1 with those in Example 10.3.2, which are used to introduce research-based findings in a literature review.

Example 10.3.2

Beginnings of statements that indicate that the material that follows is based on research

“In a statewide survey, Jones (2016) found that . . .”

“Hill’s (2012) research in urban classrooms indicates that . . .”

“Recent findings indicate that . . . (Barnes, 2014; Hanks, 2015).”

If there is little research on a topic, you may find it necessary to review primarily literature that expresses only opinions (without a research base). When this is the



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case, consider making a general statement to indicate this situation before discussing the literature in more detail in your review. This technique is indicated in Example 10.3.3.

Example 10.3.3

Statement indicating a lack of research

This database contains more than 50 documents, journal articles, and monographs devoted to the topic. However, none are reports of original research. Instead, they present anecdotal evidence, such as information on individual clients who have received therapeutic treatment.

Guideline 4: Indicate Why Certain Studies Are Important

If a particular study has methodological strengths, mention them to indicate their importance, as was done in Example 10.4.1.

Example 10.4.14

Indicates why a study is important (in this case, “a national survey” and “randomly selected”)

The Pew Research Center (2007) recently conducted a national survey of 2,020 randomly selected adults and found that 21% of employed mothers preferred full-time work, 60% preferred part-time work, and 19% preferred no employment.

A study may also be important because it represents a pivotal point in the development of an area of research, such as a research article that indicates a reversal of a prominent researcher’s position or one that launched a new methodology. These and other characteristics of a study may justify its status as important. When a study is especially important, make sure your review makes this clear to the reader.

Guideline 5: If You Are Commenting on the Timeliness of a Topic, Be Specific in Describing the Time Frame

Avoid beginning your review with unspecific references to the timeliness of a topic, as in, “In recent years, there has been an increased interest in . . .” This beginning would leave many questions unanswered for the reader, such as the following: What years are being referenced? How did the writer determine that the “interest” is increasing? Who has become more interested: the writer or others in the field? Is



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it possible that the writer became interested in the topic recently while others have been losing interest?

Likewise, an increase in a problem or an increase in the size of a population of interest should be specific in terms of numbers or percentages and the specific years being referenced. For instance, it is not very informative to state only that “The number of college students who cheat probably has increased” or that “There will be an increase in job growth.” The authors of Examples 10.5.1 and 10.5.2 avoided this problem by being specific in citing percentages and time frames (*italics and bold are added for emphasis*).

Example 10.5.1

Names a specific time frame

Over the years, research in this area has documented a steady increase in cheating and unethical behavior among college students (Brown & Emmett, 2001). ***Going as far back as 1941, Baird (1980) reported that college cheating had increased from 23% in 1941 to 55% in 1970 to 75% in 1980. Moving forward, McCabe and Bowers (1994) reported that college cheating had increased from 63% in 1962 to 70% in 1993.***

More recently, Burke, Polimeni, and Slavin (2007) stated that “various studies suggest that we may be at the precipice of a culture of academic malfeasance, where large numbers of students engage in various forms of cheating.” The Center for Academic Integrity at Oklahoma State University (2009), conducted a large-scale survey of 1,901 students and 431 faculty members and found some very disturbing results, showing that 60% of college students engaged in at least one behavior that violated academic integrity and that 72% of undergraduate business majors reported doing this, versus 56% from other disciplines. ***Brown, Weible, and Olmosk (2010) also reported that the percentage of cheating in undergraduate management classes in 2008 was close to 100%, which was an increase from the recorded 49% in 1988.***

Example 10.5.2

Names a specific time frame

With the current economy showing signs of a sluggish recovery, employers are cautiously optimistic about what the future holds. Mixed indicators in the unemployment rate, depending on location, may mean an increase in job growth for certain industries. ***A recent economic report released by USA Today shows the***



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strongest 12-month national job growth in Construction (3.9%), Leisure and Hospitality (3.4%), Education and Health Services (2.9%), and Professional and Business Services (2.9%) while traditionally strong and stable sectors such as Government (−0.3%) and Utilities (0.3%) are showing slower growth rates (Job Growth Forecast, 2011).

Most universities have writing centers that can be helpful by providing assistance to novice academic writers. Many of these centers maintain useful guides on their websites. One such site, which provides guidance to writers, can be found at: <http://www.phrasebank.manchester.ac.uk>. This site groups commonly used phrases found in academic writing into useful categories, such as Classifying and Listing, Describing Trends, Signaling Transition, Being Cautious, and so on.

Guideline 6: If Citing a Classic or Landmark Study, Identify It as Such

Make sure that you identify the classic or landmark studies in your review. Such studies are often pivotal points in the historical development of the published literature. In addition, they are often responsible for framing a particular question or a research tradition, and they also may be the original source of key concepts or terminology used in the subsequent literature. Whatever their contribution, you should identify their status as classics or landmarks in the literature. Consider Example 10.6.1, in which a landmark study (one of the earliest investigations on the topic) is cited (emphasis added).

Example 10.6.1

Identifies a landmark study

A few studies have examined the direct and indirect links between victimization and achievement in elementary school over time. In one of the earliest investigations on this topic, Kochenderfer and Ladd (1996) showed that peer victimization experiences served as a precursor of school adjustment problems (e.g., academic achievement, school avoidance, loneliness) across the kindergarten year.

Guideline 7: If a Landmark Study Was Replicated, Mention That and Indicate the Results of the Replication

As noted in the previous guideline, landmark studies typically stimulate additional research. In fact, many are replicated a number of times, by using different groups of participants or by adjusting other research design variables. If you are citing a



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landmark study and it has been replicated, you should mention that fact and indicate whether the replications were successful. This is illustrated in Example 10.7.1 (italics and bold are added for emphasis).

Example 10.7.1

Points at new evidence that questions prior hypothesis

In order to explain the difficulties experienced by children with the passive structure, Borer and Wexler (1987) put forward the A-chain maturation hypothesis, according to which children manage to master verbal passives at the age of 5 or 6. [...]

However, ***the A-chain maturation approach is at odds with evidence coming from the acquisition of other A-movement constructions*** where children behave adultlike, such as reflexive-clitic constructions (Snyder & Hyams, 2014) and subject-to-subject raising (Becker, 2006; Choe, 2012; Orfitelli, 2012).

Guideline 8: Discuss Other Literature Reviews on Your Topic

If you find an earlier published review on your topic, it is important to discuss it in your review. Before doing so, consider the following questions:

How is the other review different from yours?

- Is yours substantially more current?
- Did you delimit the topic in a different way?
- Did you conduct a more comprehensive review?
- Did the earlier reviewer reach the same major conclusions that you have reached?

How worthy is the other review of your readers' attention?

- What will they gain, if anything, by reading your review?
- Will they encounter a different and potentially helpful perspective?
- What are its major strengths and weakness

An honest assessment of your answers to these questions may either reaffirm your decision to select your current topic, or it may lead you to refine or redirect your focus in a more useful and productive direction.

Guideline 9: Describe Your Reasons for Choosing Not to Discuss a Particular Issue



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Excerpted from *Writing Literature Reviews*

If you find it necessary to omit discussion of a related issue, it is appropriate to explain the reasons for your decision, as in Example 10.9.1. Needless to say, your review should completely cover the specific topic you have chosen, unless you provide a rationale for eliminating a particular issue. It is not acceptable to describe just a portion of the literature on your topic (as you defined it) and then refer the reader to another source for the remainder. However, the technique illustrated in Example 10.9.1 can be useful for pointing out the reasons for not reviewing an issue in detail in the review (*italics and bold are added for emphasis*).

Example 10.9.1

Explains why an issue will not be discussed

To date, attempts to marry the generalized linear mixed model with chained equations imputation have met with limited success. For example, Zhao and Yucel (2009) examined chained equations imputation in a simple random intercept model with one continuous and one binary variable. The method worked well when the intraclass correlation was very close to zero but produced unacceptable coverage rates in other conditions (coverage values ranged between .40 and .80). Performance aside, the procedure is computationally intensive and prone to convergence failures because the Gibbs sampler requires an iterative optimization step that fits a linear mixed model to the filled-in data. Zhao and Yucel (2009) reported that convergence failures were common as the intraclass correlation increased, and our own attempts to apply chained equations imputation to a random intercept model with a binary outcome produced convergence failures over 40% of the time. Collectively, these findings cast doubt on the use of generalized linear mixed models for categorical variable imputation; if the simplest random intercept models produce estimation failures and poor coverage rates, it is unlikely that the method will work in realistic scenarios involving random slopes or complex mixtures of categorical and continuous variables. ***Given these difficulties, we provide no further discussion of this approach.***

Guideline 10: Justify Comments Such As “No Studies Were Found”

If you find a gap in the literature that deserves mention in your literature review, explain how you arrived at the conclusion that there is a gap. At the very least, explain how you conducted the literature search, which databases you searched, and the dates and other parameters you used. You do not need to be overly



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specific, but the reader will expect you to justify your statement about the gap.

To avoid misleading your reader, it is a good idea early in your review to make statements such as the one shown in Example 10.10.1. This will protect you from criticism if you point out a gap when one does not actually exist. In other words, you are telling your reader that there is a gap as determined by the use of *a particular search strategy*.

Example 10.10.1

Describes the strategy for searching literature

We systematically searched for relevant studies until February 2011. We started with an initial set of reports on children with incarcerated parents collected in our previous research on this topic. Four methods were used to search for additional studies. First, keywords were entered into 23 electronic databases and Internet search engines. The keywords entered were (prison* or jail* or penitentiary or imprison* or incarcerat* or detention) and (child* or son* or daughter* or parent* or mother* or father*) and (antisocial* or delinquen* or crim* or offend* or violen* or aggressi* or mental health or mental illness or internaliz* or depress* or anxiety or anxious or psychological* or drug* or alcohol* or drink* or tobacco or smok* or substance or education* or school or grade* or achievement).

Second, bibliographies of prior reviews were examined (Dallaire, 2007; S. Gabel, 2003; Hagan & Dinovitzer, 1999; Johnston, 1995; Murray, 2005; Murray & Farrington, 2008a; Myers et al., 1999; Nijnatten, 1998) as well as edited books on children of incarcerated parents (Eddy & Poehlmann, 2010; K. Gabel & Johnston, 1995; Harris & Miller, 2002; Harris, Graham, & Carpenter, 2010; Shaw, 1992b; Travis & Waul, 2003). Third, experts in the field were contacted to request information about any other studies that we might not have located. The first group of experts contacted consisted of about 65 researchers and practitioners who we knew were professionals with an interest in children with incarcerated parents. The second group consisted of about 30 directors of major longitudinal studies in criminology.

...

Guideline 11: Avoid Long Lists of Nonspecific References

In academic writing, references are used in the text of a written document for at least two purposes. First, they are used to give proper credit to an author for an idea or, in the case of a direct quotation, for a specific set of words. A failure to do so would constitute plagiarism. Second, references are used to demonstrate the



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breadth of coverage given in a manuscript. In an introductory paragraph, for instance, it may be desirable to include references to several key studies that will be discussed in more detail in the body of the review. However, it is inadvisable to use long lists of references that do not specifically relate to the point being expressed. For instance, in Example 10.11.1, the long list of nonspecific references in the first sentence is probably inappropriate. Are these all empirical studies? Do they report their authors' speculations on the issue? Are some of the references more important than others? It would have been better for the author to refer the reader to a few key studies, which themselves would contain references to additional examples of research in that particular area, as illustrated in Example 10.11.2.

Example 10.11.1

First sentence in a literature review (too many nonspecific references)

Numerous writers have indicated that children in single-parent households are at greater risk for academic underachievement than children from two parent households (Adams, 2015; Block, 2014; Doe, 2013; Edgar, 2015; Hampton, 2009; Jones, 2015; Klinger, 2008; Long, 2011; Livingston, 2010; Macy, 2011; Norton, 2012; Pearl, 2012; Smith, 2009; Travers, 2010; Vincent, 2011; West, 2008; Westerly, 2009; Yardley, 2011).

Example 10.11.2

An improved version of Example 10.11.1

Numerous writers have suggested that children in single-parent households are at greater risk for academic underachievement than children from two parent households (e.g., see Adams, 2015, and Block, 2014). Three recent studies have provided strong empirical support for this contention (Doe, 2013; Edgar, 2015; Jones, 2015). Of these, the study by Jones (2015) is the strongest, employing a national sample with rigorous controls for . . .

Notice the use of "e.g., see . . ." which indicates that only some of the possible references are cited for the point that the writers have suggested. You may also use the Latin abbreviation *cf.* (which means *compare*).

Guideline 12: If the Results of Previous Studies Are Inconsistent or Widely



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Excerpted from *Writing Literature Reviews*

Varying, Cite Them Separately

It is not uncommon for studies on the same topic to produce inconsistent or widely varying results. If so, it is important to cite the studies separately in order for the reader to interpret your review correctly. The following two examples illustrate the potential problem. Example 10.12.1 is misleading because it fails to note that the previous studies are grouped according to the two extremes of the percentage range given. Example 10.12.2 illustrates a better way to cite inconsistent findings.

Example 10.12.1

Inconsistent results cited as a single finding (undesirable)

In previous studies (Doe, 2013; Jones, 2015), parental support for requiring students to wear school uniforms in public schools varied considerably, ranging from only 19% to 52%.

Example 10.12.2

Improved version of Example 10.12.1

In previous studies, parental support for requiring students to wear school uniforms has varied considerably. Support from rural parents varied from only 19% to 28% (Doe, 2013), while support from suburban parents varied from 35% to 52% (Jones, 2015).

Guideline 13: Speculate on the Reasons for Inconsistent Findings in Previous Research

The authors of Example 10.13.1 speculate on inconsistent findings regarding shame about in-group moral failure (*italics and bold are added for emphasis*).

Example 10.13.1

Speculation of inconsistent findings of previous research (desirable) We **think** that the inconsistent findings regarding shame about in-group moral failure **may result** from the rather broad conceptualization of shame in past work. As Gausel and Leach (2011) recently pointed out, different studies of shame have conceptualized the emotion as involving quite different combinations of appraisal and feeling. Some previous work conceptualizes shame as a combination of the appraisal of *concern for condemnation* and an attendant *feeling of rejection*. Most previous work conceptualizes shame as a combination of the appraisal that the *self suffers a defect* and an attendant *feeling of inferiority*.



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Excerpted from *Writing Literature Reviews*

Guideline 14: Cite All Relevant References in the Review Section of a Thesis, Dissertation, or Journal Article

When writing a thesis, dissertation, or an article for publication in which the literature review precedes a report of original research, typically you should first cite all the relevant references in the literature review of your document. Avoid introducing new references to literature in later sections, such as the results or discussion sections. Make sure you have checked your entire document to ensure that the literature review section or chapter is comprehensive. You may refer back to a previous discussion of a pertinent study when discussing your conclusions, but the study should have been referenced first in the literature review at the beginning of the thesis, dissertation, or article.

Guideline 15: Emphasize the Need for Your Study in the Literature Review Section or Chapter

When writing a thesis, a dissertation, or an article for publication in which the literature review precedes a report of original research, you should use the review to help justify your study. You can do this in a variety of ways, such as pointing out that your study (a) closes a gap in the literature, (b) tests an important aspect of a current theory, (c) replicates an important study, (d) retests a hypothesis using new or improved methodological procedures, (e) is designed to resolve conflicts in the literature, and so on.

Example 10.15.1 was included in the literature review portion of a research report designed to examine the variables linked to success in adult continuing education learners of British Sign Language in the UK. In their review, the authors point out gaps in the literature and indicate how their study addresses these gaps and adds to the understanding of this population. This is a strong justification for the study.

Example 10.15.1

Justifies a study

The study contained several unique elements. First, data were collected from three colleges of further education in the UK that differed in some aspects of their mode of delivery. Further education in the UK is similar to continuing education in the



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United States. It is education that follows compulsory post-secondary education, but which usually is not at degree level. Two centers offered provision that was typical of the UK. A third center included several atypical initiatives in its provision, such as additional weekly conversational classes, which had the potential to enhance the student experience. Comparison of the centers' success rates offered the prospect of evaluating the impact of these differences on success. Second, this article investigates variables that might be important for success in UK Level 1 and 2 courses. The levels are equivalent to the first and second years of a UK General Certificate of Secondary Education qualification. [...] Third, information was collected on several variables that had not been tested before in L2 sign language learning context (e.g., self-reported visual thinking style).

Activities for Chapter 10

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

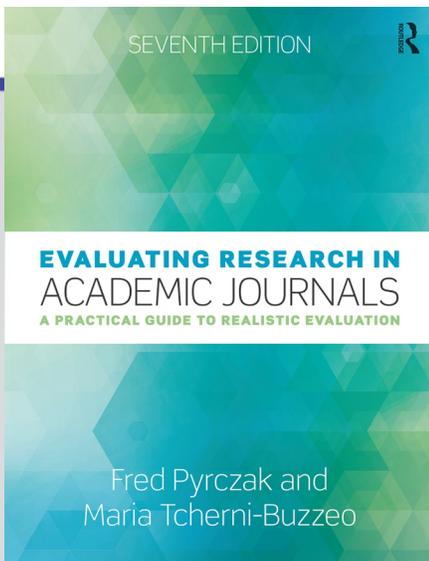
1. Describe the broad problem area addressed by each of the model reviews. Did each of the authors adequately explain this broad problem at the start of their reviews? Explain your answer.
2. Did the authors make clear for the reader the importance of the topic being reviewed? How? Was this effective, in your opinion?
3. Did the authors distinguish between research findings and other sources of information by using appropriate wording? Explain how this was done.
4. Was a landmark study cited? If yes, was it described as such? What relationship exists, if any, between the landmark study and the study presented in the review?
5. Are there references to other reviews on related issues that are not discussed in detail in the model literature review? Explain why they are referenced.
6. If an author stated that “no studies were found” on some aspect of the topic, was this statement justified (as indicated in this chapter)?



CHAPTER

5

PUTTING IT ALL TOGETHER



This chapter is excerpted from
Evaluating Research in Academic Journals
by Fred Pyczak and Maria Tcherni-Buzzeo

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As a final step, a consumer of research should make an overall judgment on the quality of a research report by considering the report as a whole. The following evaluation questions are designed to help in this activity.

1. In Your Judgment, Has the Researcher Selected an Important Problem?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: Evaluation Question 2 in Chapter 4 asks whether the researcher has established the importance of the problem area. The evaluation question being considered here is somewhat different from the previous one because this question asks whether *the evaluator* judges the problem to be important – even if the researcher has failed to make a strong case for its importance. In such a case, a consumer of research would give the research report a high rating on this evaluation question but a low rating on Evaluation Question 2 in Chapter 4.

Note that a methodologically strong study on a trivial problem is a flaw that cannot be compensated for even with the best research methodology and report writing. On the other hand, a methodologically weak and poorly written study on an important topic may be judged to make a contribution – especially if there are no stronger studies available on the same topic.

2. Were the Researchers Reflective?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: Researchers should reflect on their methodological decisions and share these reflections with their readers. This shows that careful thinking underlies their work. For instance, do they reflect on why they worked with one kind of sample rather than another? Do they discuss their reasons for selecting one measure over another for use in their research? Do they discuss their rationale for other procedural decisions made in designing and conducting their research?

Researchers also should reflect on their interpretations of the data. Are there other ways to interpret the data? Are the various possible interpretations described and evaluated? Do they make clear why they favor one interpretation over another? Do they consider alternative explanations for the study results?

Such reflections can appear throughout research reports and often are repeated in the Discussion section at the end.



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3. Is the Report Cohesive?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: Do the researchers make clear the heart of the matter (usually the research hypotheses, purposes, or questions) and write a report that revolves around it? Is the report cohesive (i.e., does it flow logically from one section to another)? Note that a scattered, incoherent report has little chance of making an important contribution to the understanding of a topic.

4. Does the Report Extend the Boundaries of the Knowledge on a Topic, Especially for Understanding Relevant Theories?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: By introducing new variables or improved methods, researchers are often able to expand understanding of a problem. It is especially helpful when their findings provide insights into various theories or provide data that may be used for theory development. When researchers believe their data clearly extend the boundaries of what is known about a research problem, they should state their reasons for this belief.

Example 15.4.1 is from the introduction to a research report. The researchers state that their research has the potential to extend the boundaries of knowledge by filling in gaps in knowledge of a topic.

Example 15.4.1

RESEARCHERS STATE IN THE INTRODUCTION THAT THEIR STUDY WILL EXTEND KNOWLEDGE BY FILLING GAPS (ITALICS ADDED FOR EMPHASIS)

Close relationships are the setting in which some of life's most tumultuous emotions are experienced. Echoing this viewpoint, Berscheid and Reis (1998) have argued that identifying both the origins and the profile of emotions that are experienced in a relationship is essential if one wants to understand the core defining features of a relationship. Against this backdrop, one might expect that a great deal would be known about emotions in relationships, especially how significant relationship experiences at critical stages of social development forecast the type and intensity of emotions experienced in adult attachment relationships. Surprisingly little is known about these issues, however (see Berscheid & Regan, 2004; Shaver, Morgan, & Wu, 1996). *Using*



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attachment theory (Bowlby, 1969, 1973, 1980) as an organizing framework, we designed the current longitudinal study to fill these crucial conceptual and empirical gaps in our knowledge.

Example 15.4.2 is excerpted from the Discussion section of a research report in which the researchers explicitly state that their findings replicate and extend what is known about an issue.

Example 15.4.2

RESEARCHERS STATE IN THE DISCUSSION SECTION THAT THEIR STUDY EXTENDED KNOWLEDGE OF THE TOPIC (ITALICS ADDED FOR EMPHASIS)

The present study extends beyond prior descriptions of interventions for homeless families by providing detailed information about a comprehensive health center-based intervention. Findings demonstrate that it is feasible to integrate services that address the physical and behavioral health and support needs of homeless families in a primary health care setting. Detailed descriptive data presented about staff roles and activities begin to establish parameters for fidelity assessment, an essential first step to ensure adequate replication and rigorous testing of the HFP model in other settings.

Example 15.4.3 is excerpted from the Discussion section of a research report in which the researchers note that their results provide support for a theory.

Example 15.4.3

RESEARCHERS STATE IN THE DISCUSSION SECTION THAT THEIR STUDY HELPS TO SUPPORT A THEORY (ITALICS ADDED FOR EMPHASIS):

Study 1 provided evidence in support of the first proposition of a new dialect theory of communicating emotion. As in previous studies of spontaneous expressions (Camras, Oster, Campos, Miyake, & Bradshaw, 1997; Ekman, 1972), posed emotional expressions converged greatly across cultural groups, in support of basic universality. However, reliable cultural differences also emerged. Thus, the study provided direct empirical support for a central proposition of dialect theory, to date supported only by indirect evidence from emotion recognition studies (e.g., Elfenbein & Ambady, 2002b). Differences were not merely idiosyncratic.



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5. Are any Major Methodological Flaws Unavoidable or Forgivable?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: No study is perfect, but some are more seriously flawed than others. When serious flaws are encountered, consider whether they were unavoidable. For instance, obtaining a random sample of street prostitutes for a study on AIDS transmission is probably impossible. However, if the researchers went to considerable effort to contact potential participants at different times of the day in various locations (not just the safer parts of a city) and obtained a high rate of participation from those who were contacted, the failure to obtain a random sample would be forgivable because the flaw was unavoidable and considerable effort was made to overcome the flaw.

Contrast the preceding example with a study in which researchers want to generalize from a sample of fourth graders to a larger population but simply settle for a classroom of students who are readily accessible because they attend the university's demonstration school on the university campus. The failure to use random sampling, or at least to use a more diverse sample from various classrooms, is not unavoidable and should be counted as a flaw.

Unless some flaws under some circumstances are tolerated, the vast majority of research in the social and behavioral sciences would need to be summarily rejected. Instead, as a practical matter, consumers of research tolerate certain flaws but interpret the findings from seriously flawed studies with considerable caution.

6. Is the Research Likely to Inspire Additional Research?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: Even if a study is seriously flawed, it can receive a high evaluation on this question if it is likely to inspire others to study the problem. Seriously flawed research is most likely to get high ratings on this evaluation question if it employs novel research methods, has surprising findings, or helps to advance the development of a theory. Keep in mind that science is an incremental enterprise, with each study contributing to the base of knowledge about a topic. A study that stimulates the process and moves it forward is worthy of attention – even if it is seriously flawed or is only a pilot study.



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7. Is the Research Likely to Help in Decision Making?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: Even seriously flawed research sometimes can help decision makers. Suppose a researcher conducted an experiment on a new drug-resistance educational program with no control group (usually considered a serious flaw) and found that students' illicit drug usage actually went up from pretest to post-test. Such a finding might lead to the decision to abandon the educational program, especially if other studies with different types of flaws produced results consistent with this one.

When applying this evaluation question, consider the following: In the absence of any other studies on the same topic, would this study help decision makers arrive at more informed decisions than they would if the study did not exist?

8. All Things Considered, is the Report Worthy of Publication in an Academic Journal?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: Given that space is limited in academic journals, with some journals rejecting more than 90% of the research reports submitted, is the report being evaluated worthy of publication?

9. Would You be Proud to Have Your Name on the Research Article as a Co-author?

Very unsatisfactory 1 2 3 4 5 Very satisfactory or N/A I/I

Comment: This is the most subjective evaluation question in this book, and it is fitting that it is last. Would you want to be personally associated with the research you are evaluating?