

## Evaluating Introductions and Literature Reviews<sup>1</sup>

Research reports in academic journals almost always begin with an introduction in which literature is cited.<sup>2</sup> This integrated introduction and literature review has these five purposes:

- introduce the problem area,
- establish its importance,
- provide an overview of the relevant literature,
- show how the current study will advance knowledge in the area, and
- describe the researcher's specific research questions, purposes, or hypotheses, which are usually stated in the last paragraph of the introduction.

This chapter presents evaluation questions regarding the introduction. In the next chapter, the selection and presentation of the literature will be examined more closely.

*Question1* Does the researcher begin by identifying a specific problem area?

*Comment:* Some researchers start their introductions with statements that are so broad that they fail to identify the specific area for investigation. As the beginning of an introduction to a study on smoking, Example 4.1.1 is deficient. Notice that it fails to identify the specific area of public health that is explored in the research.

*Example 4.1.1* *Beginning of an introduction that is too broad:*

State and local governments expend considerable resources for research on public health issues. The findings of this research are used to formulate public policies that regulate health-related activities within the broader society. In addition to helping establish regulations, public health agencies attempt to educate the public so that individuals have appropriate information when making individual lifestyle decisions that may affect their health.

Example 4.1.2. illustrates a more appropriate beginning for a research report on a public health issue — in this case, the demographics (i.e., background characteristics such as age and education) of smokers and nonsmokers.

*Example 4.1.2* *An improved version of Example 4.1.1:*<sup>3</sup>

Cigarette smoking is the single largest cause of premature and avoidable death and disability in the United States (U.S. Surgeon General, 1989). Although rates of adult smoking have been declining since the publication of the 1964 Surgeon General's Report, epidemiological data suggest that these successes have not uniformly been distributed among the population. Rather....

1. Pyrczak, Fred. (1999). *Evaluating Research in Academic Journals*. Pyrczak Publishing.
2. In theses and dissertations, the first chapter is usually an introduction, with relatively few references to the literature. This is followed by a second chapter that provides a comprehensive literature review.
3. Rose, J. S., Chassin, L., Presson, C. C., & Sherman, S. J. (1996). Demographic factors in adult smoking status: Mediating and moderating influences: *Psychology of Addictive Behaviors*, 10, 28-37.

Making a decision as to whether a researcher has started the introduction by being reasonably specific often involves some subjectivity. As a general rule, the researcher should get to the point rather quickly without using valuable journal space to outline a broad problem area that he or she has not directly studied.

*Question 2* Does the researcher establish the importance of the problem area?

*Comment* Researchers select research problems they believe are important, and they should specifically address this belief early in their introductions. Often this is done by citing previously published statistics that indicate how widespread a problem is, how many people are affected by it, and so on. Example 4.2.1 illustrates how one researcher did this in a study on the relationship between homework and achievement. Note that it might be safe to assume that readers of a journal on educational psychology (in which this appeared) already know that homework is an important issue. However, many might not know how many students do homework or how much time they spend on it. Other things being equal, readers will have more confidence in researchers who provide such specific evidence on the persuasiveness and, thus, importance of the topic they are investigating.

*Example 4.2.1* *Beginning an introduction that includes statistics to establish the importance of a problem area:*<sup>1</sup>

Homework, defined as tasks assigned to students by school teachers that are meant to be performed during nonschool hours (Cooper, 1989, p. 7), is a pervasive teaching strategy. The National Assessment of Educational Progress found that two-thirds of students in 4th, 8th, and 11th grades reported doing homework and the percentage was increasing over time (Anderson et al., 1986). Among 8th graders, the average amount of time spent on homework is about 1 hour each day (Walberg, 1991).

Note that the statistics a researcher cites in order to establish the importance of his or her problem should be closely aligned with the specific problem that was investigated. For example, there is a very large body of academic literature on homosexuality.<sup>2</sup> It would be superfluous to have each research report on this topic start with statistics on the percentage of the population that is self-identified as homosexual. Instead, if a researcher is introducing a study on adolescent suicide among gay adolescents, for example, he or she might cite statistics on suicide rates among this specific population.

Instead of providing statistics on the prevalence of problems, researchers sometimes use other strategies to convince readers of their problems' importance. One approach is to show that a topic is of current interest because of corporate or government actions such as the passage of the Americans with Disabilities Act. Another is to show that prominent people or influential authors have considered and addressed the issue that is being researched. Example 4.2.2 illustrates the latter technique, which was used to help establish the importance of a study on whether inducing empathy for a member of a stigmatized group improves attitudes toward that group.

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1. Cooper, H., Lindsay, J. J., Nye, B., & Greathouse, S. (1998). Relationships among attitudes about homework, amount of homework assigned and completed, and student achievement. *Journal of Educational Psychology, 90*, 70-83.

2. A recent search of the PsycINFO database of psychological literature alone yielded 649 journal articles on this topic.

*Example 4.2.2 Excerpt from the beginning of an introduction that uses a nonstatistical argument to establish the importance of a problem:*<sup>1</sup>

What is the social significance of books such as *Manchild in the Promised Land* (Brown, 1965), *House Made of Dawn* (Momaday, 1968), *One Flew Over the Cuckoo's Nest* (Kesey, 1962), *The Color Purple* (Walker, 1982)...and *Longtime Companion* (Wlodkowski & Rene, 1990)? We believe that each of these works, and many similar ones, seek to improve attitudes toward a stigmatized group — a racial or cultural minority, people with some social stigma, disability, or disease.

The strategy used is to induce the audience to feel empathy for one or a few members of the stigmatized group....

Finally, a researcher may attempt to establish the nature and importance of a problem by citing anecdotal evidence or personal experience. While this is arguably the weakest way to establish the importance of a problem, a unique and interesting anecdote might convince readers that the problem is important enough to investigate.

*A caveat:* When you apply evaluation question 2 to the introduction of a research report, do not confuse the importance of a problem with your personal interest in the problem. It is possible to have little personal interest in a problem yet still recognize that a researcher has established its importance. On the other hand, it is possible to have a strong personal interest in a problem but judge that the researcher has failed to make a strong argument (or has failed to present convincing evidence) to establish its importance.

*Question 3* Is the introduction an essay that logically moves from topic to topic?

*Comment:* Introductions that typically fail on this evaluation question are organized around references rather than topics. For example, a researcher might first summarize Smith's study, then summarize Jones' study, and so on. The result is a series of annotations that are strung together. This fails to guide readers through the literature, showing how the references relate to each other and what they mean as a whole.

In contrast, a topical introduction is organized around topics and subtopics with references cited as needed, often in groups of two or more articles. For example, if four research reports support a certain point, the point usually should be stated with all four references cited together. This is illustrated in Example 4.3.1. Notice that there is one reference for the point made in the first sentence while there are four references cited for the point made in the second sentence.

*Example 4.3.1 An excerpt from a literature review with references cited in groups.*<sup>2</sup>

Based on these findings, state and federal governments have tried to reduce street violent crimes through aggressive law enforcement against drug sellers and users (Popkin, Olson, Lurigio, Gwiasda, and Carter, 1995). In high-crime areas such as public housing projects, aggressive policing and tenant empowerment programs have been temporarily effective in reducing drug selling and drug-related violent and property crimes and in fostering a sense of safety and community improvement among residents (National Institute of Justice 1995b, 1996; Popkin et al. 1995; Sherman, Shaw, and Rogan, 1995).

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1. Batson, C. D. et al. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology*, 72, 105-118.
  2. Montalvo-Barbot, A. (1997). Crime in Puerto Rico: Drug trafficking, money laundering, and the poor. *Crime and Delinquency*, 43, 533-547.

Of course, when a researcher is discussing a reference that is crucial to a point he or she is making, that reference should be discussed in more detail than was done in Example 4.3.1. However, because research reports in academic journals are expected to be relatively brief, this should be done sparingly and only for the most important related literature.

**Question 4** Has the researcher provided conceptual definitions of key terms?

**Comment:** Often, researchers will pause at appropriate points in their introductions to offer formal conceptual definitions<sup>1</sup> such as the one shown in Example 4.4.1. Note that it is acceptable for a researcher to cite a previously published definition.

**Example 4.4.1** *A conceptual definition provided in an introduction:*<sup>2</sup>

Emotional intelligence has been defined as “the \*ability\* [italics added] to monitor one’s own and others’ emotions, to discriminate among them, and to use the information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p. 189). A number of researchers thus view the capacity to process affective information as a “mental ability” or “aptitude” in the conventional sense.

Sometimes important terms are not formally defined, but their meanings are made clear by the context of the introduction. For instance, researchers sometimes cite examples of what is and is not covered by a key term they are using, which helps to define it.

At times, researchers may not offer either formal definitions or in-context definitions, and you may judge that the terms have such widespread commonly held definitions that they do not need to be defined. For example, in a report of research on various methods of teaching handwriting, a researcher may not offer a definition of handwriting in his or her introduction, and you might judge this to be acceptable. Of course, you will expect the researcher to describe later how handwriting was measured (i.e., the operational definition) when you get to the details of the methods used to conduct the research.

In sum, this evaluation question should not be applied mechanically by looking to see if there is a specific statement of a definition. The mere absence of one does not necessarily mean that a researcher has failed on this evaluation question. Instead, you may judge that a definition is simply not needed.

**Question 5.** Has the researcher indicated the basis for “factual” statements?

**Comment:** Sometimes researchers make statements that sound like “facts” without referring to their source. As you know from freshman composition, this is highly undesirable. A common statement of this type is the unsubstantiated claim that interest in a problem is growing or that the number of people affected by a problem is increasing, which is illustrated in Example 4.5.1. Notice that not only is the “fact” not substantiated with a reference to its source, it is also vague because “dramatically” is not defined. Example 4.5.2 is an improved version.

**Example 4.5.1** *An unreferenced “factual” claim:*

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1. A *conceptual definition* seeks to identify a term using only general concepts but with enough specificity that the term is not confused with other related terms or concepts. As such, they resemble dictionary definitions. In contrast, an *operational definition* describes the physical process used to examine something.
  2. Davies, M., Stankov, L., & Roberts, R. D. (1998). Emotional intelligence: In search of an elusive construct. *Journal of Personality and Social Psychology*, 75, 989-1015.

Interest in child abuse and mistreatment has increased dramatically in recent years.

*Example 4.5.2 Improved version of Example 4.5.1:*<sup>1</sup>

Child maltreatment incident reports increased by 50% between 1988 and 1993, totaling more than 2.9 million reports in 1993 (McCurdy & Daro, 1994). Much of this increase can be attributed to....

Note, however, it is appropriate for researchers to express their opinions in introductions as long as the context makes it clear that they are opinions and not “facts.” In Example 4.5.3, the researchers express what is clearly an opinion because of the use of the word “contend.”

*Example 4.5.3 A statement properly identified as an opinion:*<sup>2</sup>

We contend that preservice teacher education does not include sufficient attention to gender equity.

*Question 6* Do the specific research purposes, questions, or hypotheses logically flow from the introductory material?

*Comment:* Typically, the specific research purposes, questions, or hypotheses that drive a research study are stated in the last paragraph of the introduction.<sup>3</sup> The material preceding them should set the stage and logically lead to them. For example, if a researcher argues that research methods used by previous researchers are not well suited for answering certain research questions, you would not be surprised to learn that his or her research purpose is to reexamine the research questions using alternative research methods. Likewise, if a researcher points out in the introduction that there are certain specific gaps in what is known about a problem area (that is, the previously published literature has not covered certain subtopics), you would not be surprised to learn that the purpose of the study that is being introduced is designed to fill those gaps. Example 4.6.1 is the last paragraph in the introduction to a research report. In it, the researchers summarize the literature that they just reviewed, pointing to certain specific gaps in the literature. This sets the stage for the specific research purpose, which is stated in the last sentence of the example.

*Example 4.6.1 Last paragraph of an introduction (beginning with a summary of the research that was reviewed and ending with a statement of the research purpose in the last sentence):*<sup>4</sup>

Most studies that have considered psychological variables related to exercise have focused on maintenance of exercise by volunteers in structured exercise programs. They tell us little about sedentary individuals who have no interest in initiating exercise. It is important to understand the self-efficacy, attitudes, and self-motivation of these sedentary individuals if we are to design interventions that will induce them to exercise. Furthermore, many of the studies of the psychological correlates of exercise behavior in older

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1. Akin, B. A. & Gregoire, T. K. (1997). Parents' views on child welfare's response to addiction. *Families in Society: The Journal of Contemporary Human Services*, 78, 393-404.
  2. Campbell, P. B. & Sanders, J. (1997). Uninformed but interested: Findings of a national survey on gender equity in preservice education. *Journal of Teacher Education*, 48, 69-75.
  3. Some researchers state their research purposes, questions, or hypotheses in general terms near the beginning of their introductions and then restate them more specifically near the end.
  4. Wilcox, S. & Storandt, M. (1996). Relations among age, exercise, and psychological variables in a community sample of women. *Health Psychology*, 15, 110-113.

adults have focused on men, often in cardiac rehabilitation programs. Overall, very little is known about how women in unstructured exercise programs think about exercise. Thus, in this study we examined exercise self-efficacy, attitudes about exercise, and self-motivation for exercise in a community sample of exercising and nonexercising adult women between the ages of 20 and 85.

*Question 7* Overall, is the introduction effective and appropriate?

*Comment:* Rate this evaluation question after considering your answers to the earlier ones in this chapter and any additional considerations and concerns you may have. Be prepared to explain your overall evaluation.

#### Exercise for Chapter 4

Directions: Read several research reports in academic journals on a topic of interest to you. Apply the evaluation questions in this chapter to the introductions, and select the one to which you have given the highest ratings. Bring it to class for discussion. Be prepared to discuss its strengths and weaknesses.

## A Closer Look at Evaluating Literature Reviews

As you learned in the previous chapter, literature reviews are usually integrated into the researchers' introductory statements. In that chapter, the emphasis was on the functions of the introduction and the most salient and easy-to-evaluate characteristics of the literature review. In this chapter, we will examine evaluation questions regarding the presentation of the literature that are important but often difficult to evaluate.

*Question 1* If there is extensive literature on a topic, has the researcher been selective?

*Comment:* Of course, you may not know if the research on a topic is extensive unless you have studied the topic in detail or unless the researcher makes a statement as to its breadth. Even in the absence of this information, you can still spot certain flaws related to this evaluation question. First, look for long strings of references used to support a single point or position. This is often a sign that the researcher has not been selective in choosing research to cite.<sup>1</sup> Example 5.1.1 illustrates this flaw. Example 5.1.2 shows an improved version. Notice that "e.g." (meaning "for example") is appropriately used in Example 5.1.2.

*Example 5.1.1 Unselective referencing (inappropriate):*<sup>2</sup>

Exactly how attitudes influence behavior is one of the chief questions facing contemporary social psychology (Appleton, 1993; Barnes, 1993; Chadoff, 1992; Davidson, 1999; Freedman, 2000; Fry, 1999; Galt, 1997; Greeverson, 1996; Fladley & Smith, 1995; Hoover & Johnson, 1998; James, 2000; Kelp, 2001; Koontz, Doe, & Jones, 1999; Kibler & Loone, 1999; [and so on]).

*Example 5.1.2 Selective referencing (citing only important references):*<sup>3</sup>

Exactly how attitudes influence behavior is one of the chief questions facing contemporary social psychology and has been explored in hundreds of studies (e.g., Eagly & Chaiken, 1993; Terry & Hogg, in press). Probably the best known attempt at answering this question has been made by the theory of reasoned action (Fishbein & Ajzen, 1975) and its recent extension, the theory of planned behavior (Ajzen, 1991). These theories....

*Question 2* Is the literature review critical?

*Comment:* When reviewing previously published studies, a researcher should consider their strengths and weaknesses. Articles that are reasonably strong may be cited without comment on their methodological merits. Also, a researcher may feel it unnecessary to point out weaknesses in previously published research reports when their results have been cor-

1. Long strings of references for a single point are more justifiable in a thesis or dissertation, especially if the committee that is evaluating it expects a student to produce a comprehensive review to demonstrate that he or she can locate all the literature related to a topic.
2. This example is based on one that appears in Harlow, H. F. (1962). Fundamental principles for preparing psychology journal articles. *Journal of Comparative and Physiological Psychology*, 55, 893-896.
3. This example is a modification of a statement made by Wellen, J. M., Hogg, M. A., & Terry, D. J. (1998). Group norms and attitude-behavior consistency: The role of group salience and mood. *Group Dynamics, Theory, Research, and Practice*, 2, 48-56.

roborated (or replicated) by other research that is also cited in the review. However, when the results of several studies contradict one another, researchers should usually point out which ones may be more dependable than the others or note that all are weak when that is the case. Example 5.2.1, which is taken from the introduction to a study on clinical interviews of bilingual Hispanics, illustrates the technique.

*Example 5.2.1 Critical excerpt from a literature review:*<sup>1</sup>

A general problem with the interview language studies is that they were based on extremely small samples. Del Castillo's (1970) observations were based on a few interviews, Marcos (1976) interviewed only 10 patients, and Price and Cuellar (1981) interviewed only 32 patients. Thus, the discrepant outcomes may reflect the unreliability produced by small sample size in each study.

Sometimes criticism is subtle, as in Example 5.2.2 where the researchers have hedged their generalizations from the literature as indicated by the italicized words. Notice how these words suggest that caution should be used when considering the results. If you read the example a second time, leaving out the italicized words, you will get a very different impression of the state of knowledge on this topic.

*Example 5.2.2 Excerpt from a literature review (subtle criticism expressing caution, italics added).*<sup>2</sup>

However, though less attention has been given to personality factors, there is *some* evidence that affective-based or dispositional correlates are related to emotional exhaustion (Cordes & Dougherty, 1993). Consequently, *it might be that* affective personality dispositions are accounting for the relationship between emotional exhaustion and various work outcomes. Lee and Ashforth (1996) noted the need for research *providing additional clarification* of these *proposed* relationships.

Of course, a researcher might also want to point out strengths of particular studies along the way — especially if they are promising studies on which the current one is closely based.

*Question 3.* Is current research cited?

*Comment:* You can check the currency of the literature by noting whether research published in recent years has been cited. Keep in mind, however, that relevance to the research topic is more important than currency. A ten-year-old study that is highly relevant may deserve more attention than a less relevant one that was recently published. Also note that researchers may wish to show the historical links of a line of research, which helps establish its legitimacy. In Example 5.3.1, the researcher links a particular finding back to Piaget, an important and widely-cited researcher in child development. This historical linkage adds support to the point being made by suggesting that it has stood the test of time by being replicated more recently.

*Example 5.3.1 An excerpt from a literature review showing historical links:*<sup>3</sup>

*According to research carried out by Piaget (1932) and subsequently by Wimmer, Gruber, and Perner (1984) and Strichartz and Burton (1990), young children have little of no under-*

1. Malgady, R. G. (1998). Symptom severity in bilingual Hispanics as a function of clinician ethnicity and language of interview. *Psychological Assessment*, 10, 120-127.
2. Wright, T. A. & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83, 486-493.
3. Siegal, M. (1998). Preschoolers' understanding of lies and innocent and negligent mistakes. *Developmental Psychology*, 2, 332-341.



*standing of lying as deceptive statements intended to mislead others. They regard all falsehoods as lies and do not recognize that a genuine mistake by a speaker who believes that he or she has made a true statement is not a lie.*

**Question 4** Has the researcher distinguished between research, theory, and opinion?

**Comment:** Researchers should use wording that helps readers understand whether the cited literature presents research results, theory, or opinions.

For indicating that a citation is research-based, there are a variety of options, some of which are shown in Example 5.4.1.

**Example 5.4.1** *Examples of key terms and expressions indicating that a citation is research based:*

- Recent data suggest that....
- In laboratory experiments....
- Recent test scores suggest....
- Group A has outperformed its counterparts on measures of....
- Research on XYZ has....
- Data from surveys comparing....
- Doe (1999) found that the rate....
- These studies have greatly increased our knowledge of....

In addition, if a researcher cites a specific statistic from the literature [e.g., African Americans have one of the highest rates of smoking (29%)...<sup>1</sup>], it is safe to assume that research is being cited.

When citing a premise from theory, a researcher should simply use the word “theory” and distinguish it from research findings related to the theory, which is illustrated in Example 5.4.2.

**Example 5.4.2** *Excerpt indicating the distinction between theory and research (italics added):*<sup>2</sup>

premature transition to adult activity. Thus,.... In a number of studies rebellious children have been found to be significantly more likely to smoke (Chassin,....1986). Research has also....

Sometimes researchers cite the opinions of others. When they do this, they should word their statements in such a way that the reader is made aware that opinions are being cited. Example 5.4.3 shows some examples of key words and phrases that researchers sometimes use to do this.

**Example 5.4.3** *Examples of key terms and expressions indicating that an opinion is being cited:*

- Jones (1999) has argued that....
- These kinds of assumptions were....
- Despite this speculation....
- These arguments predict....
- This logical suggestion....

**Question 5.** Overall, is the literature review portion of the introduction appropriate?

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1. Robinson, L. A. & Kiesges, R. C. (1997). Ethnic and group differences in risk factors for smoking onset. *Health Psychology, 16*, 499-505.

2. Ibid.

*Comment:* Rate this evaluation question after considering your answers to the earlier ones in this chapter and any additional considerations and concerns you may have. Be prepared to explain your overall evaluation.

### Exercise for Chapter 5

Directions: Read several research reports in academic journals on a topic of interest to you. Apply the evaluation questions in this chapter to the literature reviews in their introductions, and select the one to which you gave the highest ratings. Bring it to class for discussion. Be prepared to discuss its strengths and weaknesses.