Part II Designing Research

- Chapter 5 The Introduction
- Chapter 6 The Purpose Statement
- Chapter 7 Research Questions and Hypotheses
- Chapter 8 Quantitative Methods
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This section relates the three approaches—(a) quantitative, (b) qualitative, and (c) mixed methods—to the steps in the process of research. Each chapter addresses a separate step in this process, beginning with introducing a study.

Chapter 5 The Introduction

After having decided on a qualitative, quantitative, or mixed methods approach and after conducting a preliminary literature review and deciding on a format for a proposal, the next step in the process is to design or plan the study. A process of organizing and writing out ideas begins, starting with designing an introduction to a proposal. This chapter discusses the composition and writing of a scholarly introduction and examines the differences in writing an introduction for these three different types of designs. Then the discussion turns to the five components of writing a good introduction: (a) establishing the problem leading to the study, (b) reviewing the literature about the problem, (c) identifying deficiencies in the literature about the problem, (d) targeting an audience and noting the significance of the problem for this audience, and (e) identifying the purpose of the proposed study. These components comprise a *social science deficiency model* of writing an introduction, because a major component of the introduction is to set forth the deficiencies in past research. To illustrate this model, a complete introduction in a published research study is presented and analyzed.

The Importance of Introductions

An introduction is the first passage in a journal article, dissertation, or scholarly research study. It sets the stage for the entire project. Wilkinson (1991) mentioned the following:

The introduction is the part of the paper that provides readers with the background information for the research reported in the paper. Its purpose is to establish a framework for the research, so that readers can understand how it is related to other research. (p. 96)

The introduction establishes the issue or concern leading to the research by conveying information about a problem. Because it is the initial passage in a study or proposal, special care must be given to writing it. The introduction needs to create reader interest in the topic, establish the problem that leads to the study, place the study within the larger context of the scholarly literature, and reach out to a specific audience. All of this is achieved in a concise section of a few pages. Because of the messages they must convey and the limited space allowed, introductions are challenging to write and understand.

A research problem is the problem or issue that leads to the need for a study. It can originate from many potential sources. It might spring from an experience researchers have had in their personal lives or workplaces. It may come from an extensive debate that has appeared in the literature. The literature may have a gap that needs to be addressed, alternative views that should be resolved, or a branch that needs to be studied. Further, the research problem might develop from policy debates in government or among top executives. The sources of research problems are often multiple. Identifying and stating the research problem that underlies a study is not easy. For example, to identify the issue of teenage pregnancy is to point to a problem for women and for society at large. Unfortunately, too many authors do not clearly identify the research problem, leaving readers to decide for themselves the importance of the issue. When the problem is not clear, it is difficult to understand all the other aspects of a research study, especially the significance of the research. Furthermore, the research problem is often confused with the research questions—those questions that the investigator would like answered in order to understand or explain the problem. To this complexity is added the need for introductions to carry the weight of encouraging the reader to read further and to see significance in the study.

Fortunately, there is a model for writing a good, scholarly social science introduction. Before introducing this model, it is necessary to briefly discuss the composition of a good abstract and then to distinguish subtle differences between introductions for qualitative, quantitative, and mixed methods studies.

An Abstract for a Study

An abstract is a brief summary of the contents of a study, and it allows readers to quickly survey the essential elements of a project. It is placed at the beginning of studies, and it is useful to have both for proposals for studies and for the final thesis or dissertation. The *Publication Manual of the American Psychological Association* (American Psychological Association [APA], 2010) indicates that the abstract can be the most important single paragraph in a study. It also needs to be accurate, non-evaluative (by adding comments beyond the scope of the research), coherent, readable, and concise. Its length varies, and some colleges and universities have requirements for an appropriate length (e.g., 250 words). The APA *Publication Manual* (APA, 2010) guidelines say that most abstracts are from 150 to 250 words.

There are the major components that we would include in an abstract. The content varies for abstracts for a report, a literature review, a theory-oriented paper, and for a methodological paper. We will focus here on the abstract for a proposal for an empirical article. We see several major components as part of the abstract, and these would be the same whether the proposal is quantitative, qualitative, or mixed methods. Also, we would order these components in the order in which they can be presented:

- 1. Start with the *issue* or *problem* leading to a need for the research. This issue might be related to a need for more literature, but we like to think about a real-life problem that needs to be addressed, such as the spread of AIDS, teenage pregnancies, college students dropping out of school, or the lack of women in certain professions. These are all real-life problems that need to be addressed. The problem could also indicate a deficiency in the literature, such as a gap, a need to extend a topic, or to resolve differences among research studies. You could cite a reference or two about this "problem," but generally the abstract is too short to include many references.
- 2. Indicate the *purpose of the study*. Use the word *purpose* or the term *study aim* or *objective*, and talk about the central phenomenon being explored, the participants who will be studied, and the site where the research will take place.
- 3. Next state what *data will be collected* to address this purpose. You might indicate the type of data, the participants, and where the data will be collected.
- 4. After this, indicate qualitative *themes*, quantitative *statistical results*, or the mixed methods integrative findings that will likely arise in your study. At the early stages of planning a project, you will not know what these results will be, so you might have to guess as to what they might be. Indicate four to five themes, primary statistical results, or integrative mixed methods insights.
- 5. Finish the abstract by mentioning the *practical implications* of the study. State the specific audiences who will benefit from the project and why they will benefit.

Here is an example of a short abstract for a qualitative study that contains all five elements.

The issue that this study addresses is the lack of women in martial arts competitions. To address this problem, the purpose of this study will be exploring motivation of female athletes in Tae Kwon Do

competitions. To gather data, interviews with 4 female Tae Kwon Do tournament competitors were conducted. The interviews were transcribed and analyzed. This data leads to the following 3 themes: social support, self-efficacy, and goal orientation. These themes will be useful for understanding the optimal way to increase motivation in female martial artists. (Witte, 2011, personal communication)

Qualitative, Quantitative, and Mixed Methods Introductions

A general review of all introductions shows that they follow a similar pattern: the author announces a problem and justifies why it needs to be studied. The type of problem presented in an introduction will vary depending on the approach (see <u>Chapter 1</u>). In a *qualitative* project, the author will describe a research problem that can best be understood by exploring a concept or phenomenon. We have suggested that qualitative research is exploratory and that researchers use it to probe a topic when the variables and theory base are unknown. For example, Morse (1991) said this:

Characteristics of a qualitative research problem are: (a) the concept is "immature" due to a conspicuous lack of theory and previous research; (b) a notion that the available theory may be inaccurate, inappropriate, incorrect, or biased; (c) a need exists to explore and describe the phenomena and to develop theory; or (d) the nature of the phenomenon may not be suited to quantitative measures. (p. 120)

For example, urban sprawl (a problem) needs to be explored because it has not been examined in certain areas of a state. Alternatively, kids in elementary classrooms have anxiety that interferes with learning (a problem), and the best way to explore this problem is to go to schools and visit directly with teachers and students. Some qualitative researchers have a transformative lens through which the problem will be examined (e.g., the inequality of pay among women and men or the racial attitudes involved in profiling drivers on the highways). Thomas (1993) suggested that "critical researchers begin from the premise that all cultural life is in constant tension between control and resistance" (p. 9). This theoretical orientation shapes the structure of an introduction. Beisel (1990), for example, proposed to examine how the theory of class politics explained the lack of success of an anti-vice campaign in one of three American cities. Thus, within some qualitative studies, the approach in the introduction may be less inductive while still relying on the perspective of participants, like most qualitative studies. In addition, qualitative introductions may begin with a personal statement of experiences from the author, such as those found in phenomenological studies (Moustakas, 1994). They also may be written from a personal, first person, subjective point of view in which the researcher positions herself or himself in the narrative.

Less variation is seen in quantitative introductions. In a quantitative project, the problem is best addressed by understanding what factors or variables influence an outcome. For example, in response to worker cutbacks (a problem for all employees), an investigator may seek to discover what factors influence businesses to downsize. Another researcher may need to understand the high divorce rate among married couples (a problem) and examine whether financial issues contribute to divorce. In both of these situations, the research problem is one in which understanding the factors that explain or relate to an outcome helps the investigator best understand and explain the problem. In addition, in quantitative introductions, researchers sometimes advance a theory to test, and they will incorporate substantial reviews of the literature to identify research questions that need to be answered. A quantitative introduction may be written from the impersonal point of view and in the past tense, to convey objectivity.

A mixed methods study can employ either the qualitative or the quantitative approach (or some combination) to writing an introduction. In any given mixed methods study, the emphasis might tip in the direction of either quantitative or qualitative research, and the introduction will mirror that emphasis. For other mixed methods projects, the emphasis will be equal between qualitative and quantitative research. In this case, the problem may be one in which a need exists to both understand quantitatively the relationship among variables in a situation and explore qualitatively the topic in further depth. A mixed methods problem may also be that the existing research is primarily quantitative or qualitative in methodology, and a need exists to expand the approach to be more inclusive of diverse methodologies. A mixed methods project may initially seek to explain the relationship between smoking behavior and depression among adolescents, then explore the detailed views of these youth, and display different patterns of smoking and depression. With the first phase of this project as quantitative, the introduction may emphasize a quantitative approach with inclusion of a theory that predicts this relationship and a substantive review of the literature.

A Model for an Introduction

These differences among the various approaches are small, and they relate largely to the different types of problems addressed in qualitative, quantitative, and mixed methods studies. It should be helpful to illustrate an approach to designing and writing an introduction to a research study that researchers might use regardless of their approach.

The **deficiencies model of an introduction** is an approach to writing an introduction to a research study that builds on gaps existing in the literature. It includes the elements of stating the research problem, reviewing past studies about the problem, indicating deficiencies in these studies, and advancing the significance of the study. It is a general template for writing a good introduction. It is a popular approach used in the social sciences, and once its structure is elucidated, the reader will find it appearing repeatedly in many published research studies (not always in the order presented here). It consists of five parts, and a separate paragraph can be devoted to each part, for an introduction of about two pages in length:

- 1. State the research problem.
- 2. Review studies that have addressed the problem.
- 3. Indicate deficiencies in the studies.
- 4. Advance the significance of the study for particular audiences.
- 5. State the purpose statement.

An Illustration

Before a review of each part, here is an excellent example from a quantitative study published by Terenzini, Cabrera, Colbeck, Bjorklund, and Parente (2001) in *The Journal of Higher Education* and titled "Racial and Ethnic Diversity in the Classroom" (reprinted with permission). Following each major section in the introduction, we briefly highlight the component being addressed.

Since passage of the Civil Rights Act of 1964 and the Higher Education Act of 1965, America's colleges and universities have struggled to increase the racial and ethnic diversity of their students and faculty members, and "affirmative action" has become the policy-of-choice to achieve that heterogeneity. [Authors state the narrative hook to create reader interest.] These policies, however, are now at the center of an intense national debate. The current legal foundation for affirmative action policies rests on the 1978 Regents of the University of California v. Bakke case, in which Justice William Powell argued that race could be considered among the factors on which admissions decisions were based. More recently, however, the U.S. Court of Appeals for the Fifth Circuit, in the 1996 Hopwood v. State of Texas case, found Powell's argument wanting. Court decisions turning affirmative action policies aside have been accompanied by state referenda, legislation, and related actions banning or sharply reducing racesensitive admissions or hiring in California, Florida, Louisiana, Maine, Massachusetts, Michigan, Mississippi, New Hampshire, Rhode Island, and Puerto Rico (Healy, 1998a, 1998b, 1999).

In response, educators and others have advanced educational arguments supporting affirmative action, claiming that a diverse student body is more educationally effective than a more homogeneous one. Harvard University President Neil Rudenstine claims that the "fundamental rationale for student diversity in higher education [is] its educational value" (Rudenstine, 1999, p. 1). Lee Bollinger, Rudenstine's counterpart at the University of Michigan, has asserted, "A classroom that does not have a significant representation from members of different races produces an impoverished discussion" (Schmidt, 1998, p. A32). These two presidents are not alone in their beliefs. A statement published by the Association of American Universities and endorsed by the presidents of 62 research universities stated: "We speak first and foremost as educators. We believe that our students benefit significantly from education that takes place within a diverse setting" ("On the Importance of Diversity in University Admissions," *The New York Times*, April 24, 1997, p. A27). [Authors identify the research problem of the need for diversity.]

Studies of the impact of diversity on student educational outcomes tend to approach the ways students encounter "diversity" in any of three ways. A small group of studies treat students' contacts with "diversity" largely as a function of the numerical or proportional racial/ethnic or gender mix of students on a campus (e.g., Chang, 1996, 1999a; Kanter, 1977; Sax, 1996). . . . A second considerably larger set of studies take some modicum of structural diversity as a given and operationalizes students' encounters with diversity using the frequency or nature of their reported interactions with peers who are racially/ethnically different from themselves. . . . A third set of studies examines institutionally structured

and purposeful programmatic efforts to help students engage racial/ethnic and/or gender "diversity" in the form of both ideas and people.

These various approaches have been used to examine the effects of diversity on a broad array of student educational outcomes. The evidence is almost uniformly consistent in indicating that students in a racial/ethnically or gender-diverse community, or engaged in a diversity-related activity, reap a wide array of positive educational benefits. [Authors mention studies that have addressed the problem.]

Only a relative handful of studies (e.g., Chang, 1996, 1999a; Sax, 1996) have specifically examined whether the racial/ethnic or gender composition of the students on a campus, in an academic major, or in a classroom (i.e., structural diversity) has the educational benefits claimed. . . . Whether the degree of racial diversity of a campus or classroom has a direct effect on learning outcomes, however, remains an open question. [Deficiencies or the limitations in existing studies are noted.]

The scarcity of information on the educational benefits of the structural diversity on a campus or in its classrooms is regrettable because it is the sort of evidence the courts appear to be requiring if they are to support race-sensitive admissions policies. [Importance of the study for campus audiences is mentioned.]

This study attempted to contribute to the knowledge base by exploring the influence of structural diversity in the classroom on students' development of academic and intellectual skills. . . . This study examines both the direct effect of classroom diversity on academic/intellectual outcomes and whether any effects of classroom diversity may be moderated by the extent to which active and collaborative instructional approaches are used in the course. [Purpose of the study is identified.] (pp. 510–512, reprinted by permission of The Journal of Higher Education)

The Research Problem

In Terenzini and colleagues' (2001) article, the first sentence accomplishes both primary objectives for an introduction: (a) piquing interest in the study and (b) conveying a distinct research problem or issue. What effect did this sentence have? Would it entice a reader to read on? Was it pitched at a level so that a wide audience could understand it? These questions are important for opening sentences, and they are called a narrative hook, a term drawn from English composition, meaning words that serve to draw, engage, or hook the reader into the study. To learn how to write good narrative hooks, study first sentences in leading journals in different fields of study. Often, journalists provide good examples in the lead sentences of newspaper and magazine articles. Here, follow a few examples of lead sentences from social science journals:

- "The transsexual and ethno methodological celebrity Agnes changed her identity nearly three years before undergoing sex reassignment surgery." (Cahill, 1989, p. 281)
- "Who controls the process of chief executive succession?" (Boeker, 1992, p. 400)
- "There is a large body of literature that studies the cartographic line (a recent summary article is Butte in field, 1985), and generalization of cartographic lines (McMaster, 1987)." (Carstensen, 1989, p. 181)

All three of these examples present information easily understood by many readers. The first two—introductions in qualitative studies—demonstrate how reader interest can be created by reference to the single participant and by posing a question. The third example, a quantitative-experimental study, shows how one can begin with a literature perspective. All three examples demonstrate well how the lead sentence can be written so that the reader is not taken into a detailed morass of thought but lowered gently into the topic.

We use the metaphor of the writer lowering a barrel into a well. The *beginning* writer plunges the barrel (the reader) into the depths of the well (the article). The reader sees only unfamiliar material. The *experienced* writer lowers the barrel (the reader, again) slowly, allowing the reader to acclimate to the depths (of the study). This lowering of the barrel begins with *a narrative hook* of sufficient generality that the reader understands and can relate to the topic.

Beyond this first sentence, it is important to clearly identify the issue(s) or problem(s) that leads to a need for the study. Terenzini and colleagues (2001) discussed a distinct problem: the struggle to increase the racial and ethnic diversity on U.S. college and university campuses. They noted that policies to increase diversity are at "the center of an intense national debate" (p. 509).

In applied social science research, problems arise from issues, difficulties, and current practices in real-life situations. The research problem in a study begins to become clear when the researcher asks, "What is the need for this study?" or "What problem influenced the need to undertake this study?" For example, schools may not have implemented multicultural guidelines, the needs of faculty in colleges are such that they need to engage in professional development activities in their departments, minority students need better access to universities, or a community needs to better understand the contributions of its early female pioneers. These are all significant research problems that merit further study and establish a practical issue or concern that

needs to be addressed. When designing the opening paragraphs of a proposal, which includes the research problem, keep in mind these research tips:

- Write an opening sentence that will stimulate reader interest as well as convey an issue to which a broad audience can relate.
- As a general rule, refrain from using quotations—especially long ones—in the lead sentence because it
 will be difficult for readers to grasp the key idea you would like for them to see. Quotations raise many
 possibilities for interpretation and thus create unclear beginnings. However, as is evident in some
 qualitative studies, quotations can create reader interest.
- Stay away from idiomatic expressions or trite phrases (e.g., "The lecture method remains a 'sacred cow' among most college and university instructors.").
- Consider numeric information for impact (e.g., "Every year, an estimated 5 million Americans experience the death of an immediate family member.").
- Clearly identify the research problem (i.e., dilemma, issue) leading to the study. Ask yourself, "Is there a specific sentence (or sentences) in which I convey the research problem?"
- Indicate why the problem is important by citing numerous references that justify the need to study the problem. In perhaps a less than joking manner, we say to our students that if they do not have a dozen references cited on the first page of their proposal, they do not have a scholarly study.
- Make sure that the problem is framed in a manner consistent with the approach to research in the study (e.g., exploratory in qualitative, examining relationships or predictors in quantitative, and either approach in mixed methods inquiry).
- Consider and write about whether there is a single problem involved in the proposed study or multiple
 problems that lead to a need for the study. Often, multiple research problems are addressed in research
 studies.

Studies Addressing the Problem

After establishing the research problem in the opening paragraphs, Terenzini and colleagues (2001) next justified its importance by reviewing studies that have examined the issue. We do not have in mind a complete literature review for the introduction passage. It is later, in the literature review section of a proposal, that students thoroughly review the literature. Instead, in the introduction, this literature review passage should summarize large groups of studies instead of individual ones. We tell students to reflect on their literature maps (described in Chapter 2) and look at and summarize the broad categories at the top into which they assigned their literature. These broad categories are what we mean by reviewing studies in an introduction to a proposal.

The purpose of reviewing studies in an introduction is to justify the importance of the study and to create distinctions between past studies and the proposed one. This component might be called "setting the research problem within the ongoing dialogue in the literature." Researchers do not want to conduct a study that replicates exactly what someone else has examined. New studies need to add to the literature or to extend or retest what others have investigated. The ability to frame the study in this way separates novices from more experienced researchers. The veteran has reviewed and understands what has been written about a topic or certain problem in the field. This knowledge comes from years of experience following the development of problems and their accompanying literature.

The question often arises as to what type of literature to review. Our best advice would be to review research studies in which authors advance research questions and report data to answer them (i.e., empirical articles). These studies might be quantitative, qualitative, or mixed methods studies. The important point is that the literature provides the research being addressed in the proposal. Beginning researchers often ask, "What do I do now? No research has been conducted on my topic." Of course, in some narrowly construed studies or in new, exploratory projects, no literature exists to document the research problem. Also, it makes sense that a topic is being proposed for study precisely because little research has been conducted on it. To counter this comment we suggest that an investigator think about the literature, using an inverted triangle as an image. At the bottom of the apex of the inverted triangle lies the scholarly study being proposed. This study is narrow and focused (and studies may not exist on it). If one broadens the review of the literature upward from the base of the inverted triangle, literature can be found, although it may be somewhat removed from the study at hand. For example, the narrow topic of at-risk African Americans in primary school may not have been researched; however, more broadly speaking, the topic of at-risk students generally in the primary school or at any level in education, may have been studied. The researcher would summarize the more general literature and end with statements about a need for studies that examine at-risk African American students at the primary school level.

To review the literature related to the research problem for an introduction to a proposal, consider these research tips:

• Refer to the literature by summarizing groups of studies, not individual ones (unlike the focus on single

studies in the integrated review in Chapter 2). The intent should be to establish broad areas of research.

- To deemphasize single studies, place the in-text references at the end of a paragraph or at the end of a summary point about several studies.
- Review research studies that used quantitative, qualitative, or mixed methods approaches.
- Find recent literature to summarize, such as that published in the past 10 years. Cite older studies if they are valuable because they have been widely referenced by others.

Deficiencies in Past Literature

After advancing the problem and reviewing the literature about it, the researcher then identifies *deficiencies* found in this literature. Hence, we call this template for writing an introduction a *deficiencies model*. The nature of these deficiencies varies from study to study. **Deficiencies in past literature** may exist because topics have not been explored with a particular group, sample, or population; the literature may need to be replicated or repeated to see if the same findings hold because of mixed results given new samples of people or new sites for study; or the voices of underrepresented groups have not been heard in published literature. In any study, authors may mention one or more of these deficiencies. Deficiencies can often be found in the "suggestions for future research" sections of journal articles, and authors can reference these ideas and provide further justification for their proposed study.

Beyond mentioning the deficiencies, proposal writers need to tell how their planned study will remedy or address these deficiencies. For example, because past studies have overlooked an important variable, a study will include it and analyze its effect. For instance, because past studies have overlooked the examination of Native Americans as a cultural group, a study will include them as the participants in the project.

In <u>Examples 5.1</u> and <u>5.2</u>, the authors point out the gaps or shortcomings of the literature. Notice their use of key phrases to indicate the shortcomings: "what remains to be explored," "little empirical research," and "very few studies."

Example 5.1 Deficiencies in the Literature—Needed Studies

For this reason, the meaning of war and peace has been explored extensively by social scientists (Cooper, 1965; Alvik, 1968; Rosell, 1968; Svancarova & Svancarova, 1967–68; Haavedsrud, 1970). What remains to be explored, however, is how veterans of past wars react to vivid scenes of a new war.

(Ziller, 1990, pp. 85-86)

Example 5.2 Deficiencies in the Literature—Few Studies

Despite an increased interest in micropolitics, it is surprising that so little empirical research has actually been conducted on the topic, especially from the perspectives of subordinates. Political research in educational settings is especially scarce: Very few studies have focused on how teachers use power to interact strategically with school principals and what this means descriptively and conceptually (Ball, 1987; Hoyle, 1986; Pratt, 1984).

(Blase, 1989, p. 381)

In summary, when identifying deficiencies in the past literature, proposal developers might use the following research tips:

- Cite several deficiencies to make the case even stronger for a study.
- Identify specifically the deficiencies of other studies (e.g., methodological flaws, variables overlooked).
- Write about areas overlooked by past studies, including topics, special statistical treatments, significant

- implications, and so forth.
- Discuss how a proposed study will remedy these deficiencies and provide a unique contribution to the scholarly literature.

These deficiencies might be mentioned using a series of short paragraphs that identify three or four shortcomings of the past research or focus on one major shortcoming, as illustrated in the Terenzini and colleagues' (2001) introduction.

Significance of a Study for Audiences

In dissertations, writers often include a specific section describing the significance of the study for select audiences in order to convey the importance of the problem for different groups that may profit from reading and using the study. By including this section, the writer creates a clear rationale for the importance of the study. The more audiences that can be mentioned, the greater the importance of the study and the more it will be seen by readers to have wide application. In designing this section, one might include the following:

- Three or four reasons that the study adds to the scholarly research and literature in the field
- Three or four reasons about how the study helps improve practice
- Three or four reasons as to why the study will improve policy or decision making

In Example 5.3, the author stated the significance of the study in the opening paragraphs of a journal article. This study by Mascarenhas (1989) examined ownership of industrial firms. He identified explicitly decision makers, organizational members, and researchers as the audience for the study.

Example 5.3 Significance of the Study Stated in an Introduction to a Quantitative Study

A study of an organization's ownership and its domain, defined here as markets served, product scope, customer orientation, and technology employed (Abell and Hammond, 1979; Abell, 1980; Perry and Rainey, 1988), is important for several reasons. First, understanding relationships among ownership and domain dimensions can help to reveal the underlying logic of organizations' activities and can help organization members evaluate strategies. . . . Second, a fundamental decision confronting all societies concerns the type of institutions to encourage or adopt for the conduct of activity. . . . Knowledge of the domain consequences of different ownership types can serve as input to that decision. . . . Third, researchers have often studied organizations reflecting one or two ownership types, but their findings may have been implicitly over generalized to all organizations.

(Mascarenhas, 1989, p. 582)

Terenzini and colleagues (2001) ended their introduction by mentioning how courts could use the information of the study to require colleges and universities to support "race-sensitive admissions policies" (p. 512). In addition, the authors might have mentioned the importance of this study for admissions offices and students seeking admission as well as the committees that review applications for admission.

Finally, good introductions to research studies end with a statement of the purpose or intent of the study. Terenzini and colleagues (2001) ended their introduction by conveying that they planned to examine the influence of structural diversity on student skills in the classroom. The purpose will be discussed in the next chapter: Chapter 6.

Summary

This chapter provides advice about composing and writing an introduction to a scholarly study. The first element is to consider how the introduction incorporates the research problems associated with quantitative, qualitative, or mixed methods research. Then, a five-part introduction is suggested as a model or template to use. Called *the deficiencies model*, it is based on first identifying the research problem (and including a narrative hook). Then it includes briefly reviewing the literature that has addressed the problem, indicating one or more

deficiencies in the past literature and suggesting how the study will remedy these deficiencies. Finally, the researcher addresses specific audiences that will profit from research on the problem, and the introduction ends with a purpose statement that sets forth the intent of the study (that will be addressed in the next chapter).

Writing Exercises

- 1. Draft several examples of narrative hooks for the introduction to a study, and share these with colleagues to determine if the hooks draw readers in, create interest in the study, and are presented at a level to which readers can relate.
- 2. Write the introduction to a proposed study. Include one paragraph each for the research problem, the related literature about this problem, the deficiencies in the literature, and the audiences who will potentially find the study of interest.
- 3. Locate several research studies published in scholarly journals in a particular field of study. Review the introductions, and locate the sentence or sentences in which the authors state the research problem or issue.

Additional Readings

Bem, D. J. (1987). Writing the empirical journal article. In M. P. Zanna & J. M. Darley (Eds.), *The compleat academic: A practical guide for the beginning social scientist* (pp. 171–201). New York: Random House.

Daryl Bem emphasizes the importance of the opening statement in published research. He provides a list of rules of thumb for opening statements, stressing the need for clear, readable prose and a structure that leads the reader step-by-step to the problem statement. Examples are provided of both satisfactory and unsatisfactory opening statements. Bem calls for opening statements that are accessible to the nonspecialist yet not boring to the technically sophisticated reader.

Creswell, J. W., & Gutterman, T. (in press). Educational research: Designing, conducting, and evaluating qualitative and quantitative research (6th ed.). Upper Saddle River, NJ: Pearson Education.

John Creswell and Tim Gutterman include a chapter on introducing an educational research study. They provide details about establishing the importance of a research problem and give an example of the deficiencies model for crafting a good introduction to a study.

Maxwell, J. A. (2005). Qualitative research design: An interactive approach (2nd ed.). Thousand Oaks, CA: Sage.

Joe Maxwell reflects on the purpose of a proposal for a qualitative dissertation. One of the fundamental aspects of a proposal is to justify the project—to help readers understand not only what you plan to do but also why. He mentions the importance of identifying the issues you plan to address and indicating why they are important to study. In an example of a graduate student dissertation proposal, he shares the major issues the student has addressed to create an effective argument for the study.

Wilkinson, A. M. (1991). The scientist's handbook for writing papers and dissertations. Englewood Cliffs, NJ: Prentice Hall.

Antoinette Wilkinson identifies the three parts of an introduction: (a) the derivation and statement of the problem and a discussion of its nature, (b) the discussion of the background of the problem, and (c) the statement of the research question. Her book offers numerous examples of these three parts—together with a discussion of how to write and structure an introduction. Emphasis is placed on ensuring that the introduction leads logically and inevitably to a statement of the research question.

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