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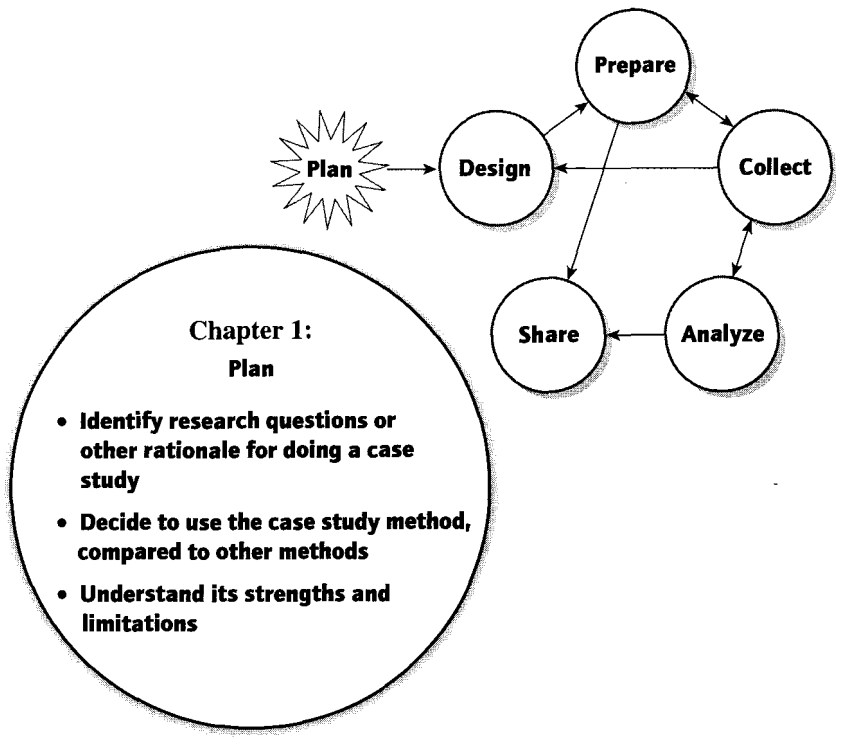

ABSTRACT

The case study is but one of several ways of doing social science research. Other ways include but are not limited to experiments, surveys, histories, and economic and epidemiologic research.

Each method has peculiar advantages and disadvantages, depending upon three conditions: the type of research question, the control an investigator has over actual behavioral events, and the focus on contemporary as opposed to historical phenomena. In general, case studies are the preferred method when (a) "how" or "why" questions are being posed, (b) the investigator has little control over events, and (c) the focus is on a contemporary phenomenon within a real-life context. This situation distinguishes case study research from other types of social science research. Nevertheless, the methods all overlap in many ways, not marked by sharp boundaries.

In case studies, the richness of the phenomenon and the extensiveness of the real-life context require case study investigators to cope with a technically distinctive situation: There will be many more variables of interest than data points. In response, an essential tactic is to use multiple sources of evidence, with data needing to converge in a triangulating fashion. This challenge is but one of the ways that makes case study research "hard," although it has classically been considered a "soft" form of research.

1

Introduction

How to Know Whether and When to Use Case Studies as a Research Method

THE CASE STUDY AS A RESEARCH METHOD

Using case studies for research purposes remains one of the most challenging of all social science endeavors. The purpose of this book is to help you—an experienced or budding social scientist—to deal with the challenge. Your goal is to design good case studies and to collect, present, and analyze data fairly. A further goal is to bring the case study to closure by writing a compelling report or book.

Do not underestimate the depth of your challenge. Although you may be ready to focus on designing and doing case study research, others may espouse and advocate other research methods. Similarly, prevailing federal or other research funds may favor other methods, but not the case study. As a result, you may need to have ready responses to some inevitable questions.

First and foremost, you should explain and show how you are devoting yourself to following a rigorous methodological path. The path begins with a thorough literature review and the careful and thoughtful posing of research questions or objectives. Equally important will be a dedication to formal and explicit procedures when doing your research. Along these lines, this book offers much guidance. It shows how case study research includes procedures central to all types of research methods, such as protecting against threats to validity, maintaining a "chain of evidence," and investigating and testing "rival explanations." The successful experiences of scholars and students, for over 25 years, may attest to the potential payoffs from using this book.

Second, you should understand and openly acknowledge the strengths and limitations of case study research. Such research, like any other, complements the strengths and limitations of other types of research. In the face of those who might only see the need for a single research method, this book believes that, just as different scientific methods prevail in the natural sciences, different social science research methods fill different needs and situations for investigating social science topics. For instance, in the natural sciences, astronomy is a science but does not

Tip: *How do I know if I should use the case study method?*

There's no formula, but your choice depends in large part on your research question(s). The more that your questions seek to explain some present circumstance (e.g., "how" or "why" some social phenomenon works), the more that the case study method will be relevant. The method also is relevant the more that your questions require an extensive and "in-depth" description of some social phenomenon.

What are some other reasons you might cite for using or not using the case study method?

rely on the experimental method. Similarly, much neurophysiological and neuroanatomical research does not rely on statistical methods. For social science, later portions of this chapter present more about the potential "niches" of different research methods.

As a research method, the case study is used in many situations, to contribute to our knowledge of individual, group, organizational, social, political, and related phenomena. Not surprisingly, the case study has been a common research method in psychology, sociology, political science, anthropology, social work, business, education, nursing, and community planning. Case studies are even found in economics, in which the structure of a given industry or the economy of a city or a region may be investigated. In all of these situations, the distinctive need for case studies arises out of the desire to understand complex social phenomena. In brief, the case study method allows investigators to retain the holistic and meaningful characteristics of real-life events—such as individual life cycles, small group behavior, organizational and managerial processes, neighborhood change, school performance, international relations, and the maturation of industries.

This book covers the distinctive characteristics of the case study as a research method. The book will help you to deal with some of the more difficult questions still frequently neglected by available research texts. So often, for instance, the author has been confronted by a student or colleague who has asked (a) how to define the "case" being studied, (b) how to determine the relevant data to be collected, or (c) what to do with the data, once collected. This book answers these questions and more, by covering all of the phases of design, data collection, analysis, and reporting.

At the same time, the book does not cover all uses of case studies. For example, it is not intended to help those who might use case studies as a teaching tool, popularized in the fields of law, business, medicine, or public policy (see Garvin, 2003; Llewellyn, 1948; Stein, 1952; Towl, 1969; Windsor & Greanias, 1983) but now prevalent in virtually every academic field, including the natural sciences. For teaching purposes, a case study need not contain a complete or accurate rendition of actual events. Rather, the purpose of the "teaching case" is to establish a framework for discussion and debate among students. The criteria for developing good cases for teaching—usually of the single- and not multiple-case variety—are different from those for doing research (e.g., Caulley & Dowdy, 1987). Teaching case studies need not be concerned with the rigorous and fair presentation of empirical data; research case studies need to do exactly that.

Similarly, this book is not intended to cover those situations in which cases are used as a form of record keeping. Medical records, social work files, and other case records are used to facilitate some practice, such as medicine, law, or social work. Again, the criteria for developing good cases for practice differ from those for doing case study research.

In contrast, the rationale for this book is that case studies are commonly used as a research method in the social science disciplines—*psychology* (e.g., D. T. Campbell, 1975; Hersen & Barlow, 1976), *sociology* (e.g., Hamel, 1992; Platt, 1992; Ragin & Becker, 1992), *political science* (e.g., George & Bennett, 2004; Gerring, 2004), and *anthropology*—and for doing research in different professional fields, such as *social work* (e.g., Gilgun, 1994), *business and marketing* (e.g., Benbasat, Goldstein, & Mead, 1987; Bonoma, 1985; Ghauri & Grønhaug, 2002; Gibbert & Ruigrok, 2007; Graebner & Eisenhardt, 2004; Voelpel, Leibold, Tekie, & von Krogh, 2005), *public administration* (e.g., Agranoff & Radin, 1991; Perry & Kraemer, 1986), *public health* (e.g., Pluye, Potvin, Denis, Pelletier, & Mannoni, 2005; Richard et al., 2004), *education* (e.g., Yin, 2006a; Yin & Davis, 2006), *accounting* (e.g., Bruns, 1989), and *evaluation* (e.g., U.S. Government Accountability Office, 1990).

You as a social scientist would like to know how to design and conduct single- or multiple-case studies to investigate a research issue. You may only be doing a case study or may be using it as part of a larger mixed methods study (see Chapter 2). Whichever, this book covers the entire range of issues in designing and doing case studies, including how to start a case study, collect case study evidence, analyze case study data, and compose a case study report.

COMPARING CASE STUDIES WITH OTHER RESEARCH METHODS IN THE SOCIAL SCIENCES

When and why would you want to do case studies on some topic? Should you consider doing an experiment instead? A survey? A history? An analysis of archival records, such as modeling economic trends or student performance in schools?[1]

These and other choices represent different research methods. Each is a different way of collecting and analyzing empirical evidence, following its own logic. And each method has its own advantages and disadvantages. To get the most out of using the case study method, you need to appreciate these differences.

A common misconception is that the various research methods should be arrayed hierarchically. Many social scientists still deeply believe that case studies are only appropriate for the exploratory phase of an investigation, that surveys and histories are appropriate for the descriptive phase, and that experiments are the only way of doing explanatory or causal inquiries. This hierarchical view reinforces the idea that case studies are only a preliminary research method and cannot be used to describe or test propositions.

This hierarchical view, however, may be questioned. Experiments with an exploratory motive have certainly always existed. In addition, the development of causal explanations has long been a serious concern of historians, reflected by the subfield known as historiography. Likewise, case studies are far from being only an exploratory strategy. Some of the best and most famous case studies have been explanatory case studies (e.g., see BOX 1 for a vignette on Allison and Zelikow's *Essence of Decision: Explaining the Cuban Missile Crisis*, 1999). Similarly, famous descriptive case studies are found in major disciplines such as

BOX 1
A Best-Selling, Explanatory, Single-Case Study

For over 30 years, Graham Allison's (1971) original study of a single case, the 1962 Cuban missile crisis, has been a political science best seller. In this crisis, a U.S.–Soviet Union confrontation could have produced nuclear holocaust and doomed the entire world. The book posits three competing but also complementary theories to explain the crisis—that the U.S. and Soviets performed as (a) rationale actors, (b) complex bureaucracies, or (c) politically motivated groups of persons. Allison compares the ability of each theory to explain the actual course of events in the crisis: why the Soviet Union placed offensive (and not merely defensive) missiles in Cuba in the first place, why the United States responded to the missile deployment with a blockade (and not an air strike or invasion—the missiles already were in Cuba!), and why the Soviet Union eventually withdrew the missiles.

The case study shows the explanatory and not just descriptive or exploratory functions of single-case studies. Furthermore, the lessons from the case study are intended to be generalizable to foreign affairs more broadly and also to a whole variety of complex governmental actions. In this way, the book, even more thoughtfully presented in its second edition (Allison & Zelikow, 1999), forcefully demonstrates how a single case study can be the basis for significant explanations and generalizations.

sociology and political science (e.g., see BOX 2 for two vignettes). Additional examples of explanatory case studies are presented in their entirety in a companion book cited throughout this text (Yin, 2003, chaps. 4–7). Examples of descriptive case studies are similarly found there (Yin, 2003, chaps. 2 and 3).

Distinguishing among the various research methods and their advantages and disadvantages may require going beyond the hierarchical stereotype. The more appropriate view may be an inclusive and pluralistic one: Every research method can be used for all three purposes—exploratory, descriptive, and

BOX 2
Two Famous Descriptive Case Studies

2A. A Neighborhood Scene

Street Corner Society (1943/1955), by William F. Whyte, has for decades been recommended reading in community sociology. The book is a classic example of a descriptive case study. It traces the sequence of interpersonal events over time, describes a subculture that had rarely been the topic of previous study, and discovers key phenomena—such as the career advancement of lower income youths and their ability (or inability) to break neighborhood ties.

The study has been highly regarded despite its being a single-case study, covering one neighborhood (under the pseudonym of "Cornerville") and a time period now nearly 100 years old. The value of the book is, paradoxically, its generalizability even to contemporary issues of individual performance, group structure, and the social structure of neighborhoods. Later investigators have repeatedly found remnants of Cornerville in their work, even though they have studied different neighborhoods and different time periods (also see BOX 20, Chapter 4, p. 111).

2B. A National Crisis

Neustadt and Fineberg's excellent analysis of a mass immunization campaign was issued originally as a government report in 1978, *The Swine Flu Affair: Decision-Making on a Slippery Disease*. The case study describes the immunization of 40 million Americans when the United States was faced with a threat of epidemic proportions from a new and potentially lethal influenza strain.

Although the case study became known as an exemplary example of a thorough and high-quality case study, the original form of the case study was difficult to obtain, having been published by the U.S. Government Printing Office, which, according to the authors, "has many virtues,... but... filling orders which do not have exact change and precise stock numbers is not one of them" (Neustadt & Fineberg, 1983, p. xxiv). As a result, a revised version of the original case study—adding new material to the original case—was later published as *The Epidemic That Never Was* (1983).

explanatory. There may be exploratory case studies, descriptive case studies, or explanatory case studies. Similarly, there may be exploratory experiments, descriptive experiments, and explanatory experiments. What distinguishes the different methods is not a hierarchy but three important conditions discussed below. As an important caution, however, the clarification does not imply that the boundaries between the methods—or the occasions when each is to be used—are always sharp. Even though each method has its distinctive characteristics, there are large overlaps among them. The goal is to avoid gross misfits—that is, when you are planning to use one type of method but another is really more advantageous.

When to Use Each Method

The three conditions consist of (a) the type of research question posed, (b) the extent of control an investigator has over actual behavioral events, and (c) the degree of focus on contemporary as opposed to historical events. Figure 1.1 displays these three conditions and shows how each is related to the five major research methods being discussed: experiments, surveys, archival analyses, histories, and case studies. The importance of each condition, in distinguishing among the five methods, is as follows.

METHOD	(1) Form of Research Question	(2) Requires Control of Behavioral Events?	(3) Focuses on Contemporary Events?
Experiment	how, why?	yes	yes
Survey	who, what, where, how many, how much?	no	yes
Archival Analysis	who, what, where, how many, how much?	no	yes/no
History	how, why?	no	no
Case Study	how, why?	no	yes

Figure 1.1 Relevant Situations for Different Research Methods

SOURCE: COSMOS Corporation.

Types of research questions (Figure 1.1, column 1). The first condition covers your research question(s) (Hedrick, Bickman, & Rog, 1993). A basic categorization scheme for the types of questions is the familiar series: "who," "what," "where," "how," and "why" questions.

If research questions focus mainly on "what" questions, either of two possibilities arises. First, some types of "what" questions are exploratory, such as "What can be learned from a study of a startup business?" This type of question is a justifiable rationale for conducting an exploratory study, the goal being to develop pertinent hypotheses and propositions for further inquiry. However, as an exploratory study, any of the five research methods can be used—for example, an exploratory survey (testing, for instance, the ability to survey startups in the first place), an exploratory experiment (testing, for instance, the potential benefits of different kinds of incentives), or an exploratory case study (testing, for instance, the importance of differentiating "first-time" startups from startups by entrepreneurs who had previously started other firms).

The second type of "what" question is actually a form of a "how many" or "how much" line of inquiry—for example, "What have been the ways that communities have assimilated new immigrants?" Identifying such ways is more likely to favor survey or archival methods than others. For example, a survey can be readily designed to enumerate the "what," whereas a case study would not be an advantageous method in this situation.

Similarly, like this second type of "what" question, "who" and "where" questions (or their derivatives—"how many" and "how much") are likely to favor survey methods or the analysis of archival data, as in economic studies. These methods are advantageous when the research goal is to describe the incidence or prevalence of a phenomenon or when it is to be *predictive* about certain outcomes. The investigation of prevalent political attitudes (in which a survey or a poll might be the favored method) or of the spread of a disease like AIDS (in which an epidemiologic analysis of health statistics might be the favored method) would be typical examples.

In contrast, "how" and "why" questions are more *explanatory* and likely to lead to the use of case studies, histories, and experiments as the preferred research methods. This is because such questions deal with operational links needing to be traced over time, rather than mere frequencies or incidence. Thus, if you wanted to know how a community successfully overcame the negative impact of the closing of its largest employer—a military base (see Bradshaw, 1999, also presented in BOX 26, Chapter 5, p. 138)—you would be less likely to rely on a survey or an examination of archival records and might be better off doing a history or a case study. Similarly, if you wanted to know how research investigators may possibly (but unknowingly) bias their research, you could design and conduct a series of experiments (see Rosenthal, 1966).

Let us take two more examples. If you were studying "who" had suffered as a result of terrorist acts and "how much" damage had been done, you might survey residents, examine government records (an archival analysis), or conduct a "windshield survey" of the affected area. In contrast, if you wanted to know "why" the act had occurred, you would have to draw upon a wider array of documentary information, in addition to conducting interviews; if you focused on the "why" question in more than one terrorist act, you would probably be doing a multiple-case study.

Similarly, if you wanted to know "what" the outcomes of a new governmental program had been, you could answer this question by doing a survey or by examining economic data, depending upon the type of program involved. Questions—such as "How many clients did the program serve?" "What kinds of benefits were received?" "How often were different benefits produced?"—all could be answered without doing a case study. But if you needed to know "how" or "why" the program had worked (or not), you would lean toward either a case study or a field experiment.

To summarize, the first and most important condition for differentiating among the various research methods is to classify the type of research question being asked. In general, "what" questions may either be exploratory (in which case, any of the methods could be used) or about prevalence (in which surveys or the analysis of archival records would be favored). "How" and "why" questions are likely to favor the use of case studies, experiments, or histories.

EXERCISE 1.1 Defining a Case Study Question

Develop a "how" or "why" question that would be the rationale for a case study that you might conduct. Instead of doing a case study, now imagine that you only could do a history, a survey, or an experiment (but not a case study) in order to answer this question. What would be the distinctive advantage of doing a case study, compared to these other methods, in order to answer this question?

Defining the research questions is probably the most important step to be taken in a research study, so you should be patient and allow sufficient time for this task. The key is to understand that your research questions have both *substance*—for example, What is my study about?—and *form*—for example, am I asking a "who," "what," "where," "why," or "how" question? Others have focused on some of the substantively important issues (see J. P. Campbell, Daft, & Hulin, 1982); the point of the preceding discussion is that the form of the question can provide an important clue regarding the appropriate research

method to be used. Remember, too, the large areas of overlap among the methods, so that, for some questions, a choice among methods might actually exist. Be aware, finally, that you (or your academic department) may be predisposed to favor a particular method regardless of the study question. If so, be sure to create the form of the study question best matching the method you were predisposed to favor in the first place.

EXERCISE 1.2 Identifying the Research Questions Covered When Other Research Methods Are Used

Locate a research study based solely on the use of survey, historical, or experimental (but not case study) methods. Identify the research question(s) addressed by the study. Does the type of question differ from those that might have appeared as part of a case study on the same topic, and if so, how?

Extent of control over behavioral events (Figure 1.1, column 2) and degree of focus on contemporary as opposed to historical events (Figure 1.1, column 3). Assuming that "how" and "why" questions are to be the focus of study, a further distinction among history, case study, and experiment is the extent of the investigator's control over and access to actual behavioral events. Histories are the preferred method when there is virtually no access or control. The distinctive contribution of the historical method is in dealing with the "dead" past—that is, when no relevant persons are alive to report, even retrospectively, what occurred and when an investigator must rely on primary documents, secondary documents, and cultural and physical artifacts as the main sources of evidence. Histories can, of course, be done about contemporary events; in this situation, the method begins to overlap with that of the case study.

The case study is preferred in examining contemporary events, but when the relevant behaviors cannot be manipulated. The case study relies on many of the same techniques as a history, but it adds two sources of evidence not usually included in the historian's repertoire: direct observation of the events being studied and interviews of the persons involved in the events. Again, although case studies and histories can overlap, the case study's unique strength is its ability to deal with a full variety of evidence—documents, artifacts, interviews, and observations—beyond what might be available in a conventional historical study. Moreover, in some situations, such as participant-observation (see Chapter 4), informal manipulation can occur.

Finally, experiments are done when an investigator can manipulate behavior directly, precisely, and systematically. This can occur in a laboratory setting, in which an experiment may focus on one or two isolated variables (and presumes that the laboratory environment can "control" for all the remaining

variables beyond the scope of interest), or it can be done in a field setting, where the term *field* or *social experiment* has emerged to cover research where investigators "treat" whole groups of people in different ways, such as providing them with different kinds of vouchers to purchase services (Boruch & Foley, 2000). Again, the methods overlap. The full range of experimental science also includes those situations in which the experimenter cannot manipulate behavior but in which the logic of experimental design still may be applied. These situations have been commonly regarded as "quasi-experimental" situations (e.g., D. T. Campbell & Stanley, 1966; Cook & Campbell, 1979) or "observational" studies (e.g., P. R. Rosenbaum, 2002). The quasi-experimental approach even can be used in a historical setting, where, for instance, an investigator may be interested in studying race riots or lynchings (see Spilerman, 1971) and use a quasi-experimental design because no control over the behavioral event was possible. In this case, the experimental method begins to overlap with histories.

In the field of evaluation research, Boruch and Foley (2000) have made a compelling argument for the practicality of one type of field experiment—randomized field trials. The authors maintain that the field trials design, emulating the design of laboratory experiments, can be and has been used even when evaluating complex community initiatives. However, you should be cautioned about the possible limitations of this design.

In particular, the design may work well when, within a community, individual consumers or users of services are the unit of analysis. Such a situation would exist if a community intervention consisted, say, of a health promotion campaign and the outcome of interest was the incidence of certain illnesses among the community's residents. The random assignment might designate a few communities to have the campaign, compared to a few that did not, and the outcomes would compare the condition of the residents in both sets of communities.

In many community studies, however, the outcomes of interest and therefore the appropriate unit of analysis are at the community or collective level and not at the individual level. For instance, efforts to upgrade neighborhoods may be concerned with improving a neighborhood's economic base (e.g., the number of jobs per residential population). Now, although the candidate communities still can be randomly assigned, the degrees of freedom in any later statistical analysis are limited by the number of communities rather than the number of residents. Most field experiments will not be able to support the participation of a sufficiently large number of communities to overcome the severity of the subsequent statistical constraints.

The limitations when communities or collective entities are the unit of analysis are extremely important because many public policy objectives focus on the collective rather than individual level. For instance, the thrust of federal education

policy in the early 2000s focused on *school* performance. Schools were held accountable for year-to-year performance even though the composition of the students enrolled at the schools changed each year. Creating and implementing a field trial based on a large number of schools, as opposed to a large number of students, would present an imposing challenge and the need for extensive research resources. In fact, Boruch (2007) found that a good number of the randomized field trials inadvertently used the incorrect unit of analysis (individuals rather than collectives), thereby making the findings from the trials less usable.

Field experiments with a large number of collective entities (e.g., neighborhoods, schools, or organizations) also raise a number of practical challenges:

- any randomly selected control sites may adopt important components of the intervention of interest before the end of the field experiment and no longer qualify as "no-treatment" sites;
- the funded intervention may call for the experimental communities to reorganize their entire manner of providing certain services—that is, a "systems" change—thereby creating site-to-site variability in the unit of assignment (the experimental design assumes that the unit of assignment is the same at every site, both intervention and control);
- the same systems change aspect of the intervention also may mean that the organizations or entities administering the intervention may not necessarily remain stable over the course of time (the design requires such stability until the random field trials have been completed); and
- the experimental or control sites may be unable to continue using the same instruments and measures (the design, which will ultimately "group" the data to compare intervention sites as a group with comparison sites as a second group, requires common instruments and measures across sites).

The existence of any of these conditions will likely lead to the need to find alternatives to randomized field trials.

Summary. You should be able to identify some situations in which all research methods might be relevant (such as exploratory research) and other situations in which two methods might be considered equally attractive. You also can use multiple methods in any given study (for example, a survey within a case study or a case study within a survey). To this extent, the various methods are not mutually exclusive. But you should also be able to identify some situations in which a specific method has a distinct advantage. For the *case study*, this is when

- A "how" or "why" question is being asked about
  - a contemporary set of events,
  - over which the investigator has little or no control.

To determine the questions that are most significant for a topic, as well as to gain some precision in formulating these questions requires much preparation. One way is to review the literature on the topic (Cooper, 1984). Note that such a literature review is therefore a means to an end, and not—as many people have been taught to think—an end in itself. Novices may think that the purpose of a literature review is to determine the *answers* about what is known on a topic; in contrast, experienced investigators review previous research to develop sharper and more insightful *questions* about the topic.

Traditional Prejudices against the Case Study Method

Although the case study is a distinctive form of empirical inquiry, many research investigators nevertheless disdain the strategy. In other words, as a research endeavor, case studies have been viewed as a less desirable form of inquiry than either experiments or surveys. Why is this?

Perhaps the greatest concern has been over the lack of rigor of case study research. Too many times, the case study investigator has been sloppy, has not followed systematic procedures, or has allowed equivocal evidence or biased views to influence the direction of the findings and conclusions. Such lack of rigor is less likely to be present when using the other methods—possibly because of the existence of numerous methodological texts providing investigators with specific procedures to be followed. In contrast, only a small (though increasing) number of texts besides the present one cover the case study method in similar fashion.

The possibility also exists that people have confused case study teaching with case study research. In teaching, case study materials may be deliberately altered to demonstrate a particular point more effectively (e.g., Garvin, 2003). In research, any such step would be strictly forbidden. Every case study investigator must work hard to report all evidence fairly, and this book will help her or him to do so. What is often forgotten is that bias also can enter into the conduct of experiments (see Rosenthal, 1966) and the use of other research methods, such as designing questionnaires for surveys (Sudman & Bradburn, 1982) or conducting historical research (Gottschalk, 1968). The problems are not different, but in case study research, they may have been more frequently encountered and less frequently overcome.

EXERCISE 1.3 Examining Case Studies Used for Teaching Purposes

Obtain a copy of a case study designed for teaching purposes (e.g., a case in a textbook used in a business school course). Identify the specific ways in which this type of "teaching" case is different from research case studies.

Does the teaching case cite primary documents, contain evidence, or display data? Does the teaching case have a conclusion? What appears to be the main objective of the teaching case?

A second common concern about case studies is that they provide little basis for scientific generalization. "How can you generalize from a single case?" is a frequently heard question. The answer is not simple (Kennedy, 1976). However, consider for the moment that the same question had been asked about an experiment: "How can you generalize from a single experiment?" In fact, scientific facts are rarely based on single experiments; they are usually based on a multiple set of experiments that have replicated the same phenomenon under different conditions. The same approach can be used with multiple-case studies but requires a different concept of the appropriate research designs, discussed in detail in Chapter 2. The short answer is that case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes. In this sense, the case study, like the experiment, does not represent a "sample," and in doing a case study, your goal will be to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization). Or, as three notable social scientists describe in their *single* case study done years ago, the goal is to do a "generalizing" and not a "particularizing" analysis (Lipset, Trow, & Coleman, 1956, pp. 419–420).[2]

A third frequent complaint about case studies is that they take too long, and they result in massive, unreadable documents. This complaint may be appropriate, given the way case studies have been done in the past (e.g., Feagin, Orum, & Sjoberg, 1991), but this is not necessarily the way case studies—yours included—must be done in the future. Chapter 6 discusses alternative ways of writing the case study—including ones in which the traditional, lengthy narrative can be avoided altogether. Nor need case studies take a long time. This incorrectly confuses the case study method with a specific method of data collection, such as ethnography (e.g., Fetterman, 1989) or participant-observation (e.g., Jorgensen, 1989). Ethnographies usually require long periods of time in the "field" and emphasize detailed, observational evidence. Participant-observation may not require the same length of time but still assumes a hefty investment of field efforts. In contrast, case studies are a form of inquiry that does *not* depend solely on ethnographic or participant-observer data. You could even do a valid and high-quality case study without leaving the telephone or Internet, depending upon the topic being studied.

A fourth possible objection to case studies has seemingly emerged with the renewed emphasis, especially in education and related research, on randomized field trials or "true experiments." Such studies aim to establish

causal relationships—that is, whether a particular "treatment" has been efficacious in producing a particular "effect" (e.g., Jadad, 1998). In the eyes of many, the emphasis has led to a downgrading of case study research because case studies (and other types of nonexperimental methods) cannot directly address this issue.

Overlooked has been the possibility that case studies can offer important evidence to complement experiments. Some noted methodologists suggest, for instance, that experiments, though establishing the efficacy of a treatment (or intervention), are limited in their ability to explain "how" or "why" the treatment necessarily worked, whereas case studies could investigate such issues (e.g., Shavelson & Townes, 2002, pp. 99–106).[3] Case studies may therefore be valued "as adjuncts to experiments rather than as alternatives to them" (Cook & Payne, 2002). In clinical psychology, a "large series of single case studies," confirming predicted behavioral changes after the initiation of treatment, even may provide additional evidence of efficaciousness (e.g., Veerman & van Yperen, 2007).

Despite the fact that these four common concerns can be allayed, as above, one major lesson is that good case studies are still difficult to do. The problem is that we have little way of screening for an investigator's ability to do good case studies. People know when they cannot play music; they also know when they cannot do mathematics beyond a certain level, and they can be tested for other skills, such as the bar examination in law. Somehow, the skills for doing good case studies have not yet been formally defined. As a result, "most people feel that they can prepare a case study, and nearly all of us believe we can understand one. Since neither view is well founded, the case study receives a good deal of approbation it does not deserve" (Hoaglin, Light, McPeek, Mosteller, & Stoto, 1982, p. 134). This quotation is from a book by five prominent *statisticians.* Surprisingly, from another field, even they recognize the challenge of doing good case studies.

DIFFERENT KINDS OF CASE STUDIES, BUT A COMMON DEFINITION

Our discussion has progressed without a formal definition of case studies. Moreover, commonly asked questions about case studies still have been unanswered. For example, is it still a case study when more than one case is included in the same study? Do case studies preclude the use of quantitative evidence? Can case studies be used to do evaluations? Let us now attempt to define the case study strategy and answer these questions.

Definition of the Case Study as a Research Method

The most frequently encountered definitions of case studies have merely repeated the types of topics to which case studies have been applied. For example, in the words of one observer,

> The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a *decision* or set of decisions: why they were taken, how they were implemented, and with what result. (Schramm, 1971, emphasis added)

This definition thus cites cases of "decisions" as the major focus of case studies. Other common cases include "individuals," "organizations," "processes," "programs," "neighborhoods," "institutions," and even "events." However, citing a case topic[4] is surely insufficient to establish the needed definition of case studies as a research *method.*

Alternatively, many of the earlier social science textbooks failed to consider the case study a formal research method at all (the major exception is the book by five statisticians from Harvard University—Hoaglin et al., 1982). As discussed previously, one common flaw was to consider the case study as the exploratory stage of some other type of research method, and the case study itself was only mentioned in a line or two of text.

Another definitional flaw has been to confuse case studies with ethnographies or with participant-observation, so that a textbook's presumed discussion of case studies was in reality a description either of the ethnographic method or of participant-observation as a data collection technique. Many earlier methodological texts (e.g., see L. Kidder & Judd, 1986; Nachmias & Nachmias, 1992), in fact, only covered "fieldwork" as a data collection technique and omitted any further discussion of case studies.

In a historical overview of the case study in American methodological thought, Jennifer Platt (1992) explains the reasons for these treatments. She traces the practice of doing case studies back to the conduct of life histories, the work of the Chicago school of sociology, and casework in social work. She then shows how "participant-observation" emerged as a data collection technique, leaving the further definition of any distinctive case study method in suspension. Finally, she explains how the first edition of this book (1984) definitively dissociated the case study strategy from the limited perspective of only doing participant-observation (or any type of fieldwork). The case study strategy, in her words, begins with "a logic of design . . . a strategy to be preferred when circumstances and research problems are appropriate rather than an ideological commitment to be followed whatever the circumstances" (Platt, 1992, p. 46).

And just what is this logic of design? The critical features had been worked out prior to the first edition of this book (Yin, 1981a, 1981b) but now may be restated as part of a twofold, technical definition of case studies. The first part begins with the scope of a case study:

1. A case study is an empirical inquiry that
   - investigates a contemporary phenomenon in depth and within its real-life context, especially when
   - the boundaries between phenomenon and context are not clearly evident.

In other words, you would use the case study method because you wanted to understand a real-life phenomenon in depth, but such understanding encompassed important contextual conditions—because they were highly pertinent to your phenomenon of study (e.g., Yin & Davis, 2007). This first part of the logic of design therefore helps to continue to distinguish case studies from the other research methods that have been discussed.

An experiment, for instance, deliberately divorces a phenomenon from its context, attending to only a few variables (typically, the context is "controlled" by the laboratory environment). A history, by comparison, does deal with the entangled situation between phenomenon and context but usually with *non*-contemporary events. Finally, surveys can try to deal with phenomenon and context, but their ability to investigate the context is extremely limited. The survey designer, for instance, constantly struggles to limit the number of variables to be analyzed (and hence the number of questions that can be asked) to fall safely within the number of respondents who can be surveyed.

Second, because phenomenon and context are not always distinguishable in real-life situations, other technical characteristics, including data collection and data analysis strategies, now become the second part of our technical definition of case studies:

2. The case study inquiry
   - copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
   - relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
   - benefits from the prior development of theoretical propositions to guide data collection and analysis.

In essence, the twofold definition shows how case study research comprises an all-encompassing method—covering the logic of design, data collection techniques, and specific approaches to data analysis. In this sense, the case study is not limited to being a data collection tactic alone or even a design feature alone (Stoecker, 1991). How the method is practiced is the topic of this entire book.

EXERCISE 1.4 Finding and Analyzing an Existing Case Study from the Literature

Retrieve an example of case study research from the literature. The case study can be on any topic, but it must have used some empirical method and presented some empirical (qualitative or quantitative) data. Why is this a case study? What, if anything, is distinctive about the findings that could not be learned by using some other social science method focusing on the same topic?

Certain other features of the case study method are not critical for defining the method, but they may be considered variations within case study research and also provide answers to common questions.

Variations within Case Studies as a Research Method

Yes, case study research includes both single- and multiple-case studies. Though some fields, such as political science and public administration, have tried to distinguish between these two approaches (and have used such terms as the *comparative case method* as a distinctive form of multiple-case studies; see Agranoff & Radin, 1991; Dion, 1998; Lijphart, 1975), single- and multiple-case studies are in reality but two variants of case study designs (see Chapter 2 for more).

And yes, case studies can include, and even be limited to, quantitative evidence. In fact, any contrast between quantitative and qualitative evidence does not distinguish the various research methods. Note that, as analogous examples, some experiments (such as studies of perceptions) and some survey questions (such as those seeking categorical rather than numerical responses) rely on qualitative and not quantitative evidence. Likewise, historical research can include enormous amounts of quantitative evidence.

As a related but important note, the case study method is not just a form of "qualitative research," even though it may be recognized among the array of qualitative research choices (e.g., Creswell, 2007). Some case study research goes beyond being a type of qualitative research, by using a mix of quantitative and qualitative evidence. In addition, case studies need not always include the direct and detailed observational evidence marked by other forms of "qualitative research."

And yes, case studies have a distinctive place in evaluation research (see Cronbach & Associates, 1980; Patton, 2002; U.S. Government Accountability Office, 1990). There are at least four different applications. The most important is to *explain* the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies. A second application is

to *describe* an intervention and the real-life context in which it occurred. Third, case studies can *illustrate* certain topics within an evaluation, again in a descriptive mode. Fourth, the case study strategy may be used to *enlighten* those situations in which the intervention being evaluated has no clear, single set of outcomes. Whatever the application, one constant theme is that program sponsors—rather than research investigators alone—may have the prominent role in defining the evaluation questions and desired data categories (U.S. Government Accountability Office, 1990).

And finally, yes, case studies can be conducted and written with many different motives. These motives vary from the simple presentation of individual cases to the desire to arrive at broad generalizations based on case study evidence but without presenting any of the individual case studies separately (see BOX 3).

BOX 3
Multiple-Case Studies: Case Studies Containing Multiple "Cases"

Case studies can cover multiple cases and then draw a single set of "cross-case" conclusions. The two examples below both focused on a topic of continuing public interest: identifying successful programs to improve U.S. social conditions.

3A. A Cross-Case Analysis following the Presentation of Separate, Single Cases

Jonathan Crane (1998) edited a book that had nine social programs as separate cases. Each case had a different author and was presented in its own chapter. The programs had in common strong evidence of their effectiveness, but they varied widely in their focus—from education to nutrition to drug prevention to preschool programs to drug treatment for delinquent youths. The editor then presents a cross-program analysis in a final chapter, attempting to draw generalizable conclusions that could apply to many other programs.

3B. A Book Whose Entire Text Is Devoted to the Multiple-Case ("Cross-Case") Analysis

Lisbeth Schorr's (1997) book is about major strategies for improving social conditions, illustrated by four policy topics: welfare reform, strengthening the child protection system, education reform, and transforming neighborhoods. The book continually refers to specific cases of successful programs, but these programs do not appear as separate, individual chapters. Also citing data from the literature, the author develops numerous generalizations based on the case studies, including the need for successful programs to be "results oriented." Similarly, she identifies six other attributes of highly effective programs (also see BOX 41A and 41B, Chapter 6, p. 173).

EXERCISE 1.5 Defining Different Types of Case Studies Used for Research Purposes

Define the three types of case studies used for research (but not teaching) purposes: (a) explanatory or causal case studies, (b) descriptive case studies, and (c) exploratory case studies. Compare the situations in which these different types of case studies would be most applicable. Now name a case study that you would like to conduct. Would it be explanatory, descriptive, or exploratory? Why?

SUMMARY

This chapter has introduced the importance of the case study as a research method. Like other research methods, it is a way of investigating an empirical topic by following a set of prespecified procedures. Articulating these procedures will dominate the remainder of this book.

The chapter has provided an operational definition of the case study and has identified some of the variations in case studies. The chapter also has attempted to distinguish the case study from alternative research methods in social science, indicating the situations in which doing a case study may be preferred, for instance, to doing a survey. Some situations may have no clearly preferred method, as the strengths and weaknesses of the various methods may overlap. The basic goal, however, is to consider all the methods in an inclusive and pluralistic fashion—as part of your repertoire from which you may draw according to a given situation to do social science research.

Finally, the chapter has discussed some of the major criticisms of case study research, also suggesting possible responses to these criticisms. However, we must all work hard to overcome the problems of doing case study research, including the recognition that some of us were not meant, by skill or disposition, to do such research in the first place. Case study research is remarkably hard, even though case studies have traditionally been considered to be "soft" research, possibly because investigators have not followed systematic procedures. This book tries to make your research study easier by offering an array of such procedures.

NOTES

1. The discussion only pertains to the use of these methods in the social sciences, making no claims for commenting on the use of experiments, for instance, in physics, biology, or other fields.

2. There nevertheless may be exceptional circumstances when a single case is so unique or important that a case study investigator has no desire to generalize to any other cases. See Stake's (2005) "intrinsic" case studies and Lawrence-Lightfoot and Davis's (1997) "portraits."

3. Scholars also point to the possibility that the classic experiments tend to test simple causal relationships—that is, when a single treatment such as a new drug is hypothesized to produce an effect. However, for many social and behavioral topics, the relevant causes may be complex and involve multiple interactions, and investigating these may well be beyond the capability of a single experiment (George & Bennett, 2004, p. 12).

4. Robert Stake (2005, p. 443) similarly considers the "case," and not any method of inquiry, to be the defining criterion for case study. Furthermore, Stake (1995, pp. 1–2) says that the preferred case must be a well-bounded, specific, complex, and functioning "thing" (e.g., a person or a program) and not a generality (such as the relationship among schools or an education policy).

REFERENCE TO EXPANDED CASE STUDY MATERIALS FOR CHAPTER 1

For selected case studies cited in the text of this chapter, two anthologies contain either a more extensive excerpt or the full case study. The table below crosswalks the reference in this book to the location of the excerpt or full rendition.

CHAPTER 1 *Chapter Topic and Page Numbers*	*Topics of Illustrative Case Studies*	*Reference to Lengthier Material*
The Case Study as a Research Method	None	
Comparing Case Studies with Other Research Methods:		
BOX 1, p. 1-7	International relations	CSA-2
BOX 2A, p. 1-7	Neighborhoods	None
BOX 2B, p. 1-7	Health care	CSA-1
p. 1-7 text	University innovation	ACSR-4
p. 1-7 text	Drug abuse prevention	ACSR-5
p. 1-7 text	Business and industry	ACSR-6
p. 1-7 text	Crime prevention	ACSR-7

CHAPTER 1 *Chapter Topic and Page Numbers*	*Topics of Illustrative Case Studies*	*Reference to Lengthier Material*
p. 1-7 text	Neighborhoods	ACSR-2
p. 1-7 text	Computers in schools	ACSR-3
Different Kinds of Case Studies, but a Common Definition:		
BOX 3A, p. 1-27	Social services	None
BOX 3B, p. 1-27	Social services	None

NOTE: CSA = *Case Study Anthology* (Yin, 2004). ACSR = *Applications of Case Study Research* (Yin, 2003). The number denotes the chapter number in the book.