

Case Study Research

Design and Methods

Robert K. Yin

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edition



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Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Yin, Robert K.
Case study research : design and methods / Robert K. Yin.
— Fifth edition.

pages cm.
Includes bibliographical references and index.

ISBN 978-1-4522-4256-9 (pbk.: alk. paper) —
ISBN 978-1-4833-0200-3 (web pdf) 1. Case method.
2. Social sciences—Research—Methodology. I. Title.

H62.Y56 2014
300.72'2—dc23 2013008876

This book is printed on acid-free paper.



14 15 16 17 10 9 8 7 6 5 4 3 2

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GETTING STARTED

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

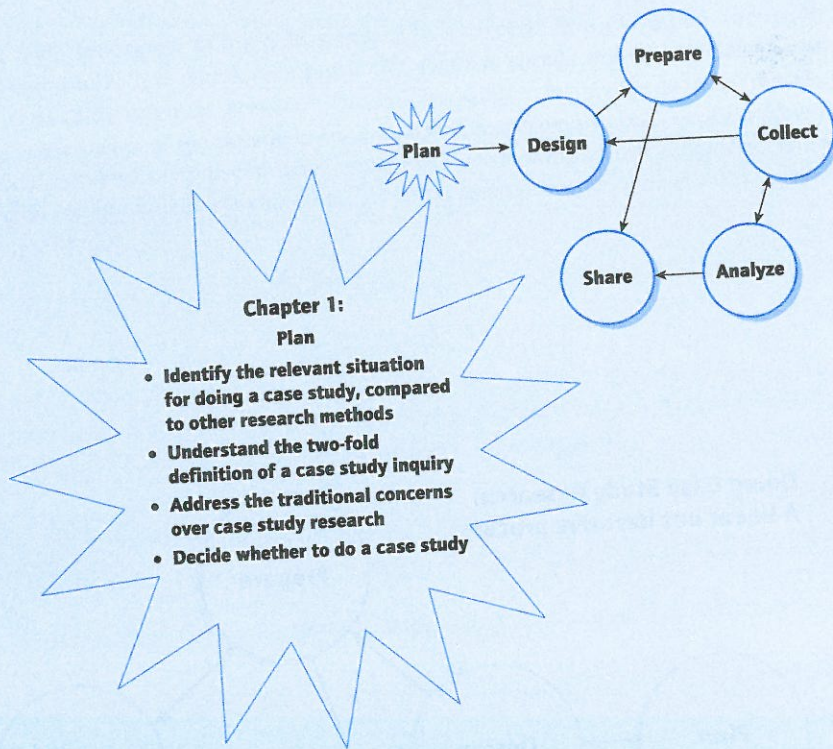
THE CASE STUDY AS A RESEARCH METHOD

Doing Case Study Research

Doing case study research remains one of the most challenging of all social science endeavors. This book will 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 your case study to closure by composing a compelling article, report, book, or oral presentation.

Do not underestimate the extent of the 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 case study research. 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



ABSTRACT

Case study research is one of several forms of social science research. Others include experiments, surveys, histories, and archival analyses such as economic or statistical modeling. Doing case study research would be the preferred method, compared to the others, in situations when (1) the main research questions are "how" or "why" questions; (2) a researcher has little or no control over behavioral events; and (3) the focus of study is a contemporary (as opposed to entirely historical) phenomenon.

As the first part of a twofold definition, a case study investigates a contemporary phenomenon (the "case") in its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident. The second part of the definition points to case study design and data collection features, such as how data triangulation helps to address the distinctive technical condition whereby a case study will have more variables of interest than data points. Among the variations in case studies, a case study can include single or multiple cases, can be limited to quantitative evidence, and can be a useful method in doing an evaluation.

Properly doing case study research means addressing five traditional concerns about case studies—by conducting the research rigorously, avoiding confusion with teaching cases, knowing how to arrive at generalized conclusions if desired, carefully managing the level of effort, and understanding the comparative advantage of case study research. The overall challenge makes case study research "hard," although it has classically been considered a "soft" form of research.

against threats to validity, maintaining a chain of evidence, and investigating and testing rival explanations. The successful experiences of scholars and students from using this book, for more than 30 years, may attest to the potential payoffs.

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

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 case study research 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?

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 rely on the experimental method; nor do engineering and geology (Scriven, 2009). Similarly, many studies in neurophysiology and neuroanatomy do not rely on statistical methods. In social science, later portions of this chapter will present more about the potential niches of different research methods.

Salience of Case Study Research in Different Fields

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 surpris-

ingly, the case study has been a common research method in psychology, sociology, political science, anthropology, social work, business, education, nursing, and community planning. For instance, Appendix A describes the case study's lengthy but peculiar history in the field of psychology. Case studies are even found in economics, in investigations about the structure of a given industry or the economy of a city or a region.

Whatever the field of interest, the distinctive need for case study research arises out of the desire to understand complex social phenomena. In brief, a case study allows investigators to focus on a "case" and retain a holistic and real-world perspective—such as in studying 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 phases of design, data collection, analysis, and composing.

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 student discussion and debate. 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 recordkeeping. Medical records, social work files, and other case records are used to facilitate some practice, such as medicine, law, or social work—or some case-based procedure such as conducting a child custody evaluation (e.g., Vertue, 2011). Although the creation of a case record or case evaluation may follow a similar procedure as if doing a case study for research purposes, in fact the criteria for developing good cases for practice differ from those for doing case study research (Bromley, 1986).

In contrast, the rationale for this book is that case study research is commonly found in both the social science disciplines and the practicing professions. For instance, Figure 1.1 lists 12 such fields, along with illustrative works that focus on the use of case study research in each specific field. (Not cited are either of two other kinds of works: general methodological texts that discuss various types of research, even if including case study research, and general texts on case study research that are not directed at any specific field.)

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

COMPARING THE CASE STUDY WITH OTHER Δ RESEARCH METHODS IN THE SOCIAL SCIENCES

When and why would you want to do case study research to examine some social science topic? Should you consider doing an experiment instead? A survey? A history? An

Figure 1.1 Sampler of Works Devoted to Case Study Methods in Specific Fields

FIELD	Illustrative Work(S)
DISCIPLINES:	
Anthropology and Ethnography	Burawoy, 1991
Political Science	George & Bennett, 2004; Gerring, 2004
Psychology	Bromley, 1986; Campbell, 1975
Sociology	Feagin, Orum, & Sjoberg, 1991; Hamel, 1992; Mitchell, 1983; Platt, 1992
PROFESSIONS:	
Accounting	Bruns, 1989
Business and International Business	Dul & Hak, 2008; Gibbert, Ruigrok, & Wicki, 2008; Johnston, Leach, & Liu, 2000; Meyer, 2001; Piekkari, Welch, & Paavilainen, 2009; Vissak, 2010
Education	Yin, 2006a
Evaluation	U.S. Government Accountability Office, 1990
Marketing	Beverland & Lindgreen, 2010
Nursing and Public Health	Baxter & Jack, 2008
Public Administration	Agranoff & Radin, 1991
Social Work	Gilgun, 1994; Lee, Mishna, & Brennenstuhl, 2010

analysis of archival records, such as the statistical modeling of economic trends or of student performance in schools?

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

Relationships among the Methods: Not Hierarchical

A common misconception is that the various research methods should be arrayed hierarchically. Many social scientists still implicitly believe that case study research is 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 pursuing explanatory or causal inquiries. The hierarchical view reinforces the idea that case study research is only a preliminary 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 study research is 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 sociology and political science (e.g., see BOX 2 for two vignettes). Additional examples of explanatory case studies, covering a university innovation, a drug prevention community organization, and small businesses, are presented in their entirety in a companion book to this text (Yin, 2012, chaps. 7–9). Examples of descriptive case studies, covering education leadership, residential crime prevention, and the development of a community organization, are similarly found there (Yin, 2012, chaps. 4–6). Thus, distinguishing among the various research methods and their advantages and disadvantages may require going beyond the hierarchical stereotype.

BOX 1

A Best-Selling, Explanatory, Single-Case Study

For more than 40 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 United States 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 authors contrast the lessons from the case study with prevailing alternative explanations in post–Cold War studies of foreign policy and international politics. 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 generalizations.

BOX 2**Two Famous Descriptive Case Studies****2A. A Neighborhood Scene**

Street Corner Society (1943/1993), 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 taking place in a small urban neighborhood (under the pseudonym of “Cornerville”) and during 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. 114).

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*, and later published independently as *The Epidemic That Never Was* (1983). The case study describes the immunization of 40 million Americans that took place under President Gerald Ford’s administration, when the United States was faced with a threat of epidemic proportions from a new and potentially lethal influenza strain. Because the case study has become known as an exceptionally well-researched case study, contemporary policy makers have continued to consult it for any generalizable lessons for understanding the quandaries of health crises and public actions in light of new threats by flu epidemics, such as the H1N1 strain of 2008–2010.

Exercise 1.1 Defining Different Types of Case Studies Used for Research Purposes

The more appropriate view may be an inclusive and pluralistic one: Every research method can be used for all three purposes—exploratory, descriptive, and explanatory studies. 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 next. As an important caution, however, the clarification does not imply that the

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boundaries between the methods—or the occasions when each is to be used—are always sharp. Even though each method has its distinct 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.

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?

When to Use Each Method

The three conditions consist of (a) the type of research question posed, (b) the extent of control a researcher has over actual behavioral events, and (c) the degree of focus on contemporary as opposed to entirely historical events. Figure 1.2 displays these three conditions and shows how each is related to five major research methods: experiments, surveys, archival analyses (e.g., economic modeling, or a statistical analysis in an epidemiological study), histories, and case studies. The importance of each condition, in distinguishing among the five methods, is as follows.

Figure 1.2 Relevant Situations for Different Research Methods

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

SOURCE: COSMOS Corporation.

(a) *Types of research questions* (see Figure 1.2, 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 business 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 a case study, history, or experiment as the preferred research method. 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. 137)—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 associated with a new governmental program had been, you could answer this question by doing a survey or by examining economic data, depending on 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 using a case study, experiment, or history.

Exercise 1.2 Defining a Case Study Research 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) to address this question. What would be the distinctive advantage of doing a case study, compared to these other methods, in order to address the question?

Defining your research question(s) 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 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, that the methods can overlap. Thus, 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 1.3 Identifying the Research Questions Covered When Other Research Methods Are Used

Locate a research study based solely on the use of a survey, history, or experiment (but not a case study). 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?

(b) *Extent of control over behavioral events* (see Figure 1.2, column 2) and (c) *degree of focus on contemporary as opposed to entirely historical events* (see Figure 1.2, column 3).

Assuming that “how” and “why” questions are to be the focus of study, these two remaining conditions help to distinguish further among a history, case study, and experiment.

A history is the preferred method when there is virtually no such control or access. The distinctive contribution of the historical method is in dealing with the “dead” past—that is, when direct observations of the event(s) being studied are not possible and when no relevant persons are alive to report, even retrospectively, what occurred. The historian must then rely on primary documents, secondary documents, and cultural and physical artifacts as the main sources of evidence. A history can, of course, be done about fairly recent events, as in conducting an oral history (e.g., Janesick, 2010); in this situation, the method begins to overlap with that of the case study.

The case study is preferred when 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 available as part of 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).

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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., Campbell & Stanley, 1966; Cook & Campbell, 1979) or *observational studies* (e.g., 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.

A special situation in evaluation research. In the field of evaluation, Boruch and Foley (2000) have made a compelling argument for the desirability of one type of field experiment—*randomized field trials*—to be used in virtually all evaluations. For instance, 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 units 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 actual outcomes of interest and therefore the appropriate unit of analysis may be 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 as well as the number of residents (the technical tool would be a two-level hierarchical linear model). 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 units 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 cluster 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 also should be able to identify some situations in which a specific method has a distinct advantage. For case study research, this niche is when

- A “how” or “why” question is being asked about
 - a contemporary set of events,
 - over which a researcher has little or no control.

To determine the questions that are the most pressing on 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.

VARIATIONS IN CASE STUDIES, BUT A COMMON DEFINITION Δ

Our discussion has progressed without formally defining *case study*. Moreover, commonly asked questions about case study research still have been unanswered. For example, (1) Is it still a case study when more than one case is included in the same study? (2) Does a case study preclude the use of quantitative evidence? (3) Can a case study be used to do evaluations? Let us now attempt to define the case study as a research method and then answer these three questions.

Definition of the Case Study as a Research Method

Some 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, dwelling on the definition of a case study “by interest in an individual case, not by the methods of inquiry used” (e.g., Stake, 2005, p. 443) would seem insufficient to establish the complete basis for case studies as a research *method*.

Alternatively, many of the earlier social science textbooks failed to consider case study research as a formal method at all. As discussed previously, one common shortcoming was to consider case study research as the exploratory stage of some other type of research method.

Another definitional shortcoming was to confuse case study research with doing “fieldwork,” as in ethnography or participant-observation. Thus, early textbooks limited their discussion of case studies to descriptions of participant-observation or of fieldwork as a data collection process, without elaborating further on a definition of case study research (e.g., Kidder & Judd, 1986; Nachmias & Nachmias, 1992).

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, effectively eliminating any further recognition of case study research. Thus, she found ample references to case study research in methodological textbooks up to 1950 but hardly any references to case studies or to case study research in textbooks from 1950 to 1980 (Platt, 1992, p. 18). Finally, Platt explains how the first edition of this book (1984) definitively dissociated case study research from the limited perspective of only doing some kind of field-work. She then also found a renewed discussion of case study research in textbooks, largely occurring from 1980 to 1989 and continuing thereafter (also see this book's preface for a Google Ngram analysis of the trends from 1980 to 2008). Case study research, in her words, had now come to be appreciated as having its own "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).

Twofold definition of case study. And just what is this research method? The critical features first appeared in earlier publications (Yin, 1981a, 1981b), predating the first edition of this book. The resulting definition as it has evolved over the four previous editions of this book reflects a twofold 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 (the "case") in depth and within its real-world context, especially when
 - the boundaries between phenomenon and context may not be clearly evident.

In other words, you would want to do case study research because you want to understand a real-world case and assume that such an understanding is likely to involve important contextual conditions pertinent to your case (e.g., Yin & Davis, 2007).

This first part of the definition therefore helps you to continue distinguishing case study research from the other methods that have been discussed. An experiment, for instance, deliberately separates a phenomenon from its context, attending only to the phenomenon of interest and only as represented by a few variables (typically, the context is entirely ignored because it is "controlled" by the laboratory environment). A history, by comparison, does deal with the entangled situation between phenomenon and context but usually in studying *noncontemporary* events. Finally, surveys can try to deal with phenomenon and context, but a survey's ability to investigate the context is extremely limited. The survey designer, for instance, constantly struggles to limit the number of items in a questionnaire (and hence the number of questions that can be analyzed) to fall safely within the allotted degrees of freedom (usually constrained by the number of respondents who are to be surveyed).

The second part of the definition of case studies arises because phenomenon and context are not always sharply distinguishable in real-world situations. Therefore, other methodological characteristics become relevant as the *features of a case study*:

2. A case study inquiry

- copes with the technically distinctive situation in which there will be many more variables of interest than data points,¹ 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—covering the scope and features of a case study—shows how case study research comprises an all-encompassing method—covering the logic of design, data collection techniques, and specific approaches to data analysis. (For a further elaboration on this definition, see Tutorial 1-1 at the end of this chapter.) In this sense, case study research 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.

Applicability of different epistemological orientations. This all-encompassing method also can embrace different epistemological orientations—for example, a *relativist* or *interpretivist* compared to a *realist* orientation.² Much of case study research as it is described in this book appears to be oriented toward a *realist* perspective, which assumes the existence of a single reality that is independent of any observer. However, case study research also can excel in accommodating a *relativist* perspective—acknowledging multiple realities having multiple meanings, with findings that are observer dependent. For instance, Chapter 2 will later discuss the importance of “theory” in designing case studies. If you want to assume a relativist perspective, your theory in designing a case study may very well concern the way that you will capture the perspectives of different participants, and how and why you believe their different meanings will illuminate your topic of study.

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

Retrieve an example of case study research from the research literature. The case study can be on any topic, but it must have some empirical method and present 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 type of social science method focusing on the same topic?

Variations in Case Studies as a Research Method

Certain other characteristics of case study research are not critical for defining the method. They may be considered variations in case studies, which now also provide the opportunity to answer the three questions posed at the outset of this subsection.

Yes, case study research includes both single- and multiple-case studies. Although 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). BOX 3 contains two examples of multiple-case studies.

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 has nine social programs as separate cases. Each case has a different author and is 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. 183).

And yes, case study research can include, and even be limited to, quantitative evidence. In fact, any contrast between quantitative and qualitative evidence does not set apart 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, case study research is not just a form of qualitative research, even though some have recognized the case study as being among the array of qualitative research choices (e.g., Creswell, 2012). The use of a mix of quantitative and qualitative evidence, along with the necessity for defining a “case,” are but two of the ways that case study research goes beyond being a type of qualitative research. As a further example, case study research need not always engage in the *thick description* (Geertz, 1973) or detailed observational evidence that marks most forms of qualitative research.

And yes (and as discussed in greater detail in Appendix B of this book), case study research has its own place in doing evaluations (see Cronbach & Associates, 1980; Patton, 2002; U.S. Government Accountability Office, 1990; Stufflebeam & Shinkfield, 2007, pp. 309–324). There are at least four different applications (U.S. Government Accountability Office, 1990). The most important is to *explain* the presumed causal links in real-world interventions that are too complex for survey or experimental methods. A second application is to *describe* an intervention and the real-world context in which it occurred. Third, a case study can *illustrate* certain topics within an evaluation, again in a descriptive mode. Fourth, case study research 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 researchers alone—may have a prominent role in defining the evaluation questions and relevant data categories.

ADDRESSING TRADITIONAL CONCERNS ABOUT CASE STUDY RESEARCH △

Although the case study is a distinctive form of empirical inquiry, many researchers nevertheless disdain the method. In other words, as a research endeavor, the case study has been viewed as a less desirable form of inquiry than either an experiment or a survey. Why is this?

Rigorous enough? Perhaps the greatest concern has arisen over a presumed need for greater rigor in doing case study research. Too many times, a case study researcher has been sloppy, has not followed systematic procedures, or has allowed equivocal evidence

to influence the direction of the findings and conclusions. In doing case study research, you need to avoid such practices. Interestingly, a lack of rigor is presumed to be less likely when using the other methods—possibly because of the existence of numerous methodological texts providing researchers with specific procedures to be followed. In contrast, only a small (though increasing) number of texts besides the present one cover case study research in similar fashion.

Confusion with teaching cases? The possibility also exists that people have confused case study research with the case studies used in teaching. In teaching, case study materials may be deliberately altered to demonstrate a particular point more effectively (e.g., Ellet, 2007; Garvin, 2003). In research, any such step would be strictly forbidden. Thus, if a person's main prior exposure to case studies has been to one or more teaching cases, the exposure may taint the person's view of the case study as a research method.

In doing case study research, you must work hard to report all evidence fairly, and this book will help you 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 in conducting historical research (Gottschalk, 1968). The problems are not different, but in case study research, they may occur more frequently and demand greater attention.

Exercise 1.5 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 discuss how this evidence was fairly collected? What appears to be the main objective of the teaching case?

Generalizing from case studies? A third common concern about case study research is an apparent inability to generalize from case study findings. "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, generalizations in science 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 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 case study research, your goal will be to expand and generalize theories (analytic generalizations) and not to extrapolate probabilities (statistical generalizations). 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).³

Unmanageable level of effort? A fourth frequent concern about case study research is that case studies can potentially take too long and that they can result in massive, unreadable documents. This concern 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 must be done in the future. Chapter 6 discusses alternative ways of composing a case study (whether presenting the case study in writing or orally)—including an option in which the traditional, flowing (and potentially lengthy) narrative can be avoided.

Nor need case studies take a long time. This incorrectly confuses case study research with a specific method of data collection, such as ethnography (e.g., O'Reilly, 2005) or participant-observation (e.g., DeWalt & DeWalt, 2011). Ethnographies usually require long periods in the field and emphasize detailed observational and interview evidence. Participant-observation may similarly assume a hefty investment of field effort. In contrast, a case study is 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 on the topic being studied.

Comparative advantage? A fifth possible concern with case study research has to do with its unclear comparative advantage, in contrast to other research methods. This issue especially emerged during the first decade of the 21st century, which favored randomized controlled trials (RCTs) or “true experiments,” especially in education and related topics. These kinds of experiments were esteemed because they aimed to establish the effectiveness of various treatments or interventions (e.g., Jadad, 1998). In the eyes of many, the emphasis 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 insights not provided by RCTs. Noted quantitative scholars suggest, for instance, that RCTs, though addressing the effectiveness question, are limited in their ability to explain “how” or “why” a given treatment or intervention necessarily worked (or not), and that case studies are needed to investigate such issues (e.g., Shavelson & Towne, 2002, pp. 99–106)—or, as succinctly captured by the subtitle of an excellent article on evaluating public programs, “not whether programs work, but how they work” (Rogers, 2000).⁴ In

this sense, case study research does indeed offer its own advantage. At a minimum, case studies may 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, may augment the evidence of efficaciousness from a field trial (e.g., Veerman & van Yperen, 2007). Finally, in a similar manner, case study research can readily complement the use of other quantitative and statistical methods (see BOX 4).

BOX 4 **Complementarity of Case Study and Statistical Research**

In the field of international politics, a major proposition has been that “democracies seldom if ever make war upon one another” (George & Bennett, 2004, p. 37). The proposition has been the subject of an extensive body of research, involving statistical studies as well as case studies. An excellent chapter by George and Bennett (2004, pp. 37–58) shows how the statistical studies may have tested the correlation between regime types and war, but how case studies have been needed to examine the underlying processes that might explain such a correlation. For instance, one of the more prominent explanations has been that democracies are able to make formal commitments with each other that make the use of military force unnecessary for resolving disputes (p. 57). The review shows how the relevant research has taken place over many decades, involving many different scholars. The entire body of research, based on both the statistical and case studies, illustrates the complementarity of these methods.

Summary. Despite the fact that these five common concerns can be allayed, as above, one major lesson is that a good case study is still difficult to do. The inability to screen for a researcher’s ability to do a good case study further compounds the problem. 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 study research 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. Because neither view is well founded, the case study receives a good deal of approbation it does not deserve” (Hoaglin, Light, McPeck, 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 a good case study.

SUMMARY

This chapter has introduced the importance of case study research. Like other methods, it is a way of investigating an empirical topic by following a set of desired 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 case study research from alternative 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—before settling on your method of choice in conducting a new social science study.

Finally, the chapter has addressed some of the major concerns about case study research, suggesting possible responses to these concerns. 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 researchers have not followed systematic procedures. By offering an array of such procedures, this book tries to make case study research easier to follow and your own case study better.

NOTES TO CHAPTER 1

1. Appendix A has a full discussion of the reasons for the large number of variables in a case study.
2. These terms were deliberately chosen even though they oversimplify two contrasting perspectives. Ignored are the many more subtle orientations that investigators may bring to their research. For brief definitions, see Schwandt's (2007) dictionary of qualitative inquiry, which characterizes *realism* as “the doctrine that there are real objects that exist independently of our knowledge of their existence” (p. 256), *relativism* as “the doctrine that denies that there are universal truths” (p. 261), and *interpretivism* as a term that has “occasionally been used as a synonym for all qualitative inquiry” (p. 160).
3. 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.”
4. Scholars also point out that the classic experiments only can 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 any single experiment (George & Bennett, 2004, p. 12).

Tutorial 1.1: More on Defining "Case Study"

In this book, a "case study" means a particular kind of research inquiry. The term parallels those used to refer to other kinds of inquiries, such as an "experiment," a "survey," and a "history." "Case study research" is then a more formal label (again parallel to "experimental research," "survey research," and "historical research"), and the method of doing case study research is the topic of this entire book.

The definition of case study in Chapter 1 of this fifth edition retains the essence stated in this book's first edition (1984). The definition has two parts: (a) the scope of a case study inquiry and (b) its features. Concepts implicit in the original definition now appear explicit, including notions such as an "in-depth" inquiry, the phenomenon being studied as the "case," the "triangulation of evidence," and having "more variables of interest than data points."

Communicating a clear definition is difficult. Some reference works (e.g., Abercrombie, Hill, & Turner, 2006; Schwandt, 2007) give short but incomplete definitions. Other works may use several pages and still not attain clarity (e.g., David, 2006b; Mills et al., 2010b). This book's definition also can be enhanced, to avoid misinterpretations that have arisen with the book's earlier editions. The enhancements are as follows:

1. The lack of sharpness between *phenomenon* and *context* does not minimize the need to identify a "case" and its singularity as the essential feature of a case study; on the contrary, Chapter 2 (see pp. 35–40) discusses the challenge of defining the "case" in great detail.
2. The term *in-depth*, especially when studying a *contemporary phenomenon*, implies the likely need for some kind of fieldwork, to get you up close to the case being studied.
3. The term *contemporary phenomenon* embraces a broad notion of studying the present but that does not exclude the recent past—just not those events extending back to the "dead" past, where no direct observations can be made and no people are alive to be interviewed (doing a history would be the relevant method under those conditions).
4. Having *more variables of interest than data points* arises from the complexity of the case and its context (hence, many variables), with the case being the only "data point." The use of this language does not mean that case studies are variable-based; on the contrary, the multiplicity of variables raises doubts about the usefulness of conventional variable-based methods in analyzing case study data, hence favoring holistic approaches.

As a final note, the book's discussion of when to use case study research (pp. 4–6) focuses on its "niche," compared to other methods, and the discussion was not intended to be used as the definition of "case study."