

Case Study Research

Design and Methods

Robert K. Yin

5

edition



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COSMO Corporation



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ABOUT THE AUTHOR

Robert K. Yin is President of COSMOS Corporation, an applied research and social science firm. Over the years, COSMOS has successfully completed hundreds of projects for federal agencies, state and local agencies, and private foundations, and most of this book's applications come from these projects.

Outside of COSMOS, Dr. Yin has assisted numerous other research groups, helping to train their field teams or to design research studies. Recent engagements have been with evaluation teams at The World Bank and the United Nations Development Programme. Another assignment has been to provide guidance to assist doctoral students at the University of Copenhagen. Currently, Dr. Yin holds the position of distinguished scholar-in-residence at American University's School of International Service (Washington, D.C.). Earlier, he served as Visiting Scholar at the U.S. Government Accountability Office's research methodology division.

Dr. Yin has authored over 100 journal articles, reports, and books. His first book on the case study method, *Case Study Research: Design and Methods* (2014), is in its fifth edition. A companion book, *Applications of Case Study Research* (2012), is in its third edition. He has edited two case study anthologies (Yin, 2004, 2005) and has most recently authored a new text on qualitative research methods (Yin, 2011). Dr. Yin received his B.A. in history from Harvard College (magna cum laude) and his Ph.D. in brain and cognitive sciences from MIT.

FOREWORD

It is a privilege to provide the foreword for this fine book. It epitomizes a research method for attempting valid inferences from events outside the laboratory while at the same time retaining the goals of knowledge shared with laboratory science.

More and more I have come to the conclusion that the core of the scientific method is not experimentation per se but rather the strategy connoted by the phrase "plausible rival hypotheses." This strategy may start its puzzle solving with evidence, or it may start with hypothesis. Rather than presenting this hypothesis or evidence in the context-independent manner of positivistic confirmation (or even of postpositivistic corroboration), it is presented instead in extended networks of implications that (although never complete) are nonetheless crucial to its scientific evaluation.

This strategy includes making explicit other implications of the hypotheses for other available data and reporting how these fit. It also includes seeking out rival explanations of the focal evidence and examining their plausibility. The plausibility of these rivals is usually reduced by ramification extinction, that is, by looking at their other implications on other data sets and seeing how well these fit. How far these two potentially endless tasks are carried depends on the scientific community of the time and what implications and plausible rival hypotheses have been made explicit. It is on such bases that successful scientific communities achieve effective consensus and cumulative achievements, without ever reaching foundational proof. Yet, these characteristics of the successful sciences were grossly neglected by the logical positivists and are underpracticed by the social sciences, quantitative or qualitative.

Such checking by other implications and the ramification-extinction of rival hypotheses also characterizes validity-seeking research in the humanities, including the hermeneutics of Schleiermacher, Dilthey, Hirst, Habermas, and current scholarship on the interpretation of ancient texts. Similarly, the strategy is as available for a historian's conjectures about a specific event as for a scientist's assertion of a causal law. It is tragic that major movements in the social sciences are using the term *hermeneutics* to connote giving up on the goal of validity and abandoning disputation as to who has got it right. Thus, in addition to the quantitative and quasi-experimental case study approach that Yin teaches, our social science methodological armamentarium also needs a humanistic validity-seeking case study methodology that, although making no use of quantification

or tests of significance, would still work on the same questions and share the same goals of knowledge.

As versions of this plausible rival hypotheses strategy, there are two paradigms' of the experimental method that social scientists may emulate. By training, we are apt to think first of the randomized-assignment-to-treatments model coming to us from agricultural experimentation stations, psychological laboratories, randomized trials of medical and pharmaceutical research, and the statistician's mathematical models. Randomization purports to control an infinite number of rival hypotheses *without specifying what any of them are*. Randomized assignment never completely controls these rivals but renders them implausible to a degree estimated by the statistical model.

The other and older paradigm comes from physical science laboratories and is epitomized by experimental isolation and laboratory control. Here are the insulated and lead-shielded walls; the controls for pressure, temperature, and moisture; the achievement of vacuums; and so on. This older tradition controls for a relatively few but explicitly specified rival hypotheses. These are never controlled perfectly, but well enough to render them implausible. Which rival hypotheses are controlled for is a function of the disputations current in the scientific community at the time. Later, in retrospect, it may be seen that other controls were needed.

The case study approach as presented here, and quasi-experimentation more generally, is more similar to the experimental isolation paradigm than to the randomized-assignment-to-treatments model in that each rival hypothesis must be specified and specifically controlled for. The degree of certainty or consensus that the scientific community is able to achieve will usually be less in out-of-doors social science, due to the lesser degree of plausibility-reduction of rival hypotheses that is likely to be achieved. The inability to replicate at will (and with variations designed to rule out specific rivals) is part of the problem. We should use those singular-event case studies (which can never be replicated) to their fullest, but we should also be alert for opportunities to do intentionally replicated case studies.

Given Robert Yin's background (Ph.D. in experimental psychology, with a dozen publications in that field), his insistence that the case study method be done in conformity with science's goals and methods is perhaps not surprising. But such training and career choice are usually accompanied by an intolerance of the ambiguities of nonlaboratory settings. I like to believe that this shift was facilitated by his laboratory research on that most hard-to-specify stimulus, the human face, and that this experience provided awareness of the crucial role of pattern and context in achieving knowledge.

This valuable background has not kept him from thoroughly immersing himself in the classic social science case studies and becoming in the process a leader of nonlaboratory social science methodology. I know of no comparable text. It meets a longstanding need. I am confident that it will become a standard text in social science research methods courses.

—Donald T. Campbell
Bethlehem, Pennsylvania

PREFACE

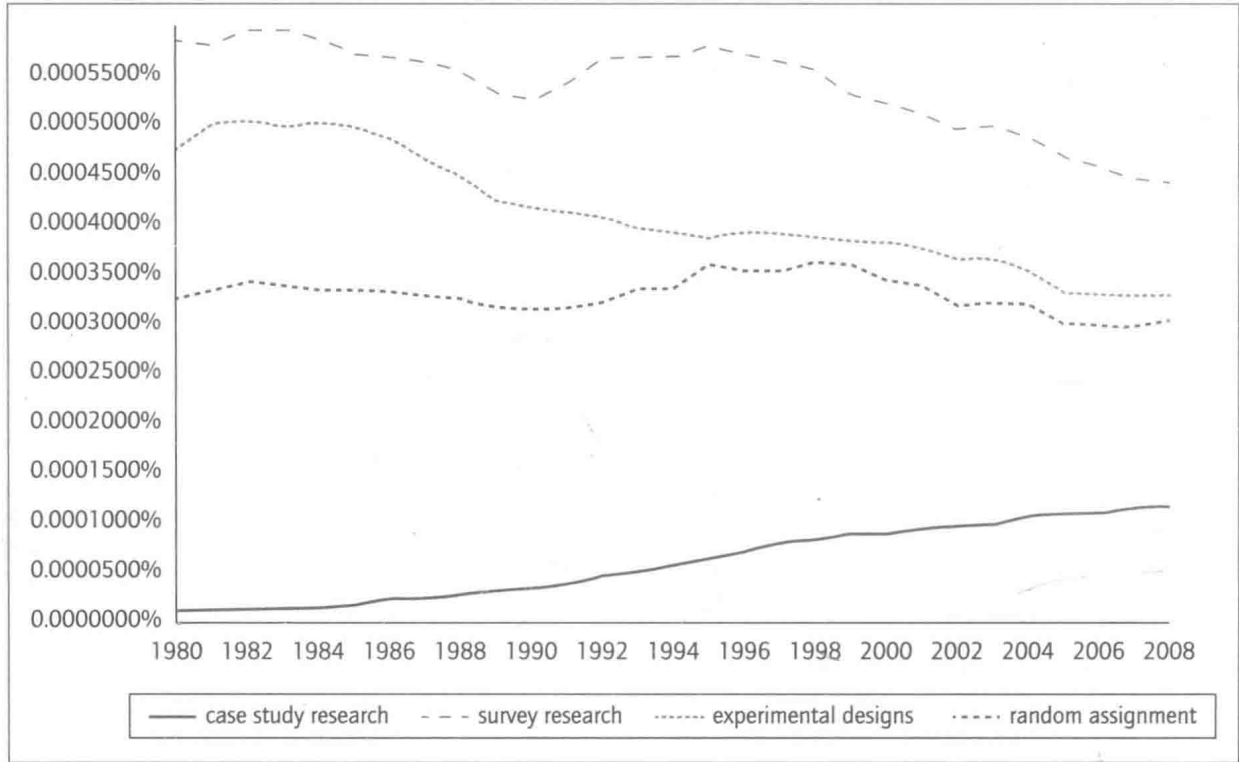
Ever since this book's first edition (1984), you and many others have increasingly recognized case study research as a valuable research method. More broadly, the rising recognition has taken at least three readily observed forms.

Rising Recognition for Case Study Research

One sign has been the sheer frequency with which the term *case study research* appears in publications. Although far from providing a definitive estimate, Google's *Ngram Viewer* counts such frequencies in published books (Michel et al., 2010).¹ The figure below shows the *Ngram Viewer*'s findings for the period 1980 to 2008, comparing the citations to "case study research" with those for three competing terms: "survey research," "experimental designs," and "random assignment." During these years—roughly coinciding with the 30 years between the first and fifth editions of this book—the frequency for "case study research" shows a distinct upward trend in contrast to the other three terms, even though the absolute level is still lower than those of the other terms. The trend may surprise you (as it did me), because of the decade-long hullabaloo over random assignment designs as the preferred "gold standard" in doing any social science research.² Clearly, as evidenced by the frequency trends, case study research may be having an increasingly prominent place in everyone's portfolio.

A second form of recognition occurs when comprehensive reference works, documenting a research method in some formal way, emerge. For case study research, two such hefty works have now appeared, just since 2006: a four-volume, 1,580-page compilation of the seminal articles on case study research, reprinted from academic journals (David, 2006a), and a two-volume encyclopedia of case study research (Mills, Durepos, & Wiebe, 2010a).

The compilation of seminal works covers "the most important articles on the subject of case study research" published during "the entire span of the 20th century" (David, 2006b, p. xxiii). The volumes contain 86 articles reprinted from their original journals and covering a "wide spectrum of disciplines and fields" (David, 2006b, p. xxiii). Given that a good bunch of these articles was first published in the 1920s and 1930s, the

Figure Frequency of Four Methodological Terms Appearing in Published Books, 1980–2008

SOURCE: *Google Ngram Viewer* (<http://books.google.com/ngrams>), March 2012.

four-volume work now makes the case study research legacy readily accessible to you and other contemporary readers.

The encyclopedia of case study research contains 357 entries and more than 1,100 pages across its two separate, 8½" × 11" volumes (Mills, Durepos, & Wiebe, 2010b, p. xxxiii). The entries reflect the features of case study research as well as its place "within and alongside other research strategies" (Mills et al., 2010b, p. xxxiii). In producing the encyclopedia, the editors' expressed goal has been for the encyclopedia to serve as a valuable resource to "encourage new and renewed interest in case study research" (Mills et al., 2010b, p. xxxiii). Thus, the encyclopedia provides another rich resource for learning about case study research.

A third and more general form of recognition comes as a result of publications that focus on case study research methods in a particular field. Figure 1.1 in this book (see Chapter 1) contains a sampler of illustrative publications in 12 different fields. The works

reflect the presence of case study research and its contributions to numerous research topics across a broad range of social science fields (disciplines and professions). The numerosity and diversity of these works appear to have increased and give scholars yet additional access to case study research.

The various editions of this book have possibly contributed to the growing recognition of case study research. More important, and as stated in earlier prefaces, the book's enduring objective is to guide you and other researchers and students to do case study research rigorously.

Distinctiveness of This Book

The book claims to be distinctive in several ways. First, it presents the breadth of case study research and its scholarly heritage, but also at a detailed and practical level. Other works do not offer as comprehensive a combination. Thus, the earlier versions of this book have been used as a complete portal to the world of case study research. Among its most distinctive features, the book provides

- a workable technical definition of the case study as a research method and its differentiation from other social science research methods (Chapter 1),
- an extensive discussion of case study designs (Chapter 2), and
- a continually expanding presentation of case study analysis techniques (Chapter 5).

These features are important because case study design and analysis tend to create the greatest challenges for people doing case study research. Sandwiched between the design and analysis chapters, the book has two extensive and important chapters pertaining to the preparation for (Chapter 3) and then collection of (Chapter 4) case study evidence. Chapter 6 then concludes the main text with a thorough discussion on composing case study reports, both written and oral.

Second, the book briefly depicts numerous case studies, deliberately drawing from different academic and professional fields. The depictions are found in the BOXES sprinkled throughout the text. Each BOX contains one or more concrete examples of published case studies, to illustrate points made in the text. The citations will increase your access to existing and (often) exemplary case studies. Most of the citations are contemporary, making the works easy to retrieve. However, to avoid losing connectivity with "roots," the citations also include older works that might be out of print but that still deserve to be recognized. The contents of these BOXES have changed over the various editions of this book, with some works having been replaced and other works having been added. The main text of this fifth edition now has 50 BOXES, covering more than 50 separately published case studies. Appendices A and B contain case studies presented in another 8 BOXES, and Appendix C has an index to the case studies in all these BOXES.