

2ND EDITION

**Introduction
to**

BEHAVIORAL

RESEARCH

METHODS

**Mark R.
Leary**

Introduction to Behavioral Research Methods 2nd Edition

Mark R. Leary
Wake Forest University



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Regardless of how good a particular class is, the students' enthusiasm for the course material is rarely, if ever, as great as the professor's. No matter how interesting the material, how motivated the students, or how skillful the professor, those who take a course are seldom as enthralled with the content as are those who teach it. In some courses, the discrepancy between student and professor attitudes is slight, whereas in others, the schism is large. But the difference virtually always exists. We've all taken many courses in which an animated, nearly zealous professor faced a classroom of only mildly interested students.

In departments founded on the principles of behavioral science—psychology, communication, human development, education, marketing, social work, and the like—this student–professor discrepancy is perhaps most pronounced in courses that deal with research design and analysis. On one hand, the individuals who teach courses in research methods are usually quite enthused about research. They typically enjoy the research process, some have contributed to the research literature in their own areas of expertise, and many are highly regarded researchers within their fields. On the other hand, despite these instructors' best efforts to bring the course alive, students often dread taking methods courses, find such courses dry and difficult, and wonder why such courses are required as part of their curriculum. Thus, the enthused, involved instructor is often confronted by a class of disinterested, even hostile students who begrudge the fact that they must study research methods at all.

These attitudes are, in many ways, understandable. After all, students who choose to study psychology, education, human development, and other areas that rely on behavioral research usually do so either because they plan to enter a profession in which knowledge of behavior is relevant (such as professional psychology, social work, teaching, or public relations) or because they are intrinsically

interested in the subject matter. In either case, few students initially decide to study these areas because they are enamored with research. Although some students eventually come to appreciate the value of research to behavioral science, to the helping professions, and to society, others continue to view it as an unnecessary curricular diversion imposed by misguided academicians. For many students, being required to take courses in methodology and statistics supplants other courses in which they are more interested.

In addition, the concepts, principles, analyses, and ways of thinking central to methodology are new to most students and, thus, require extra effort to comprehend, learn, and retain. Add to that the fact that the topics covered in research methods courses are, on the whole, inherently less interesting than most other courses in psychology and related fields. If the instructor and textbook do not make a special effort to make the material interesting and relevant, students are unlikely to derive much enjoyment from studying research methods.

I wrote *Introduction to Behavioral Research Methods* because, as a teacher and as a researcher, I wanted a book that would help counteract students' natural tendencies to dislike and shy away from research—a book that would make research methodology as understandable, palatable, useful, and interesting for my students as it was for me.

My primary goal was to write a text that was *readable*. Students should be able to understand most of the material in a book such as this without the course instructor having to serve as an interpreter. Enhancing comprehensibility can be achieved in two ways. The less preferred way is simply to dilute the material by omitting complex topics. The alternative, which I chose in this text, is to present the material with sufficient elaboration, explanation, and examples to render it understandable.

A second goal was to integrate the various topics covered in the book to a greater extent than is done in most methods texts, using the concept of variability as a unifying theme. From the development of a research idea, through measurement issues, to design and analysis, the entire research process is an attempt to understand variability in behavior. Because the concept of variability is woven throughout the research process, I've used it as a framework to provide coherence to the various topics in the book.

Third, I tried to write a book that is interesting—that presents ideas in an engaging fashion and uses provocative examples of real and hypothetical research. (Unfortunately, a few topics defied my best attempts.) Like most researchers, I am enthusiastic about the research process, and I hope that some of my fervor will be contagious.

Courses in research methods differ widely in the degree to which statistics are incorporated into the course. My personal view is that statistics are research methods and that students' understanding of research methodology is enhanced by an elementary understanding of statistical principles. Students design better studies

when they understand what will become of the data they collect. Furthermore, students find it difficult to understand the research articles they read without an elementary grasp of statistical concepts. Thus, although this book is decidedly about research methodology and design, I've sprinkled essential statistical topics here and there throughout the book.

Because I think it is more important for students in a methods course to develop a conceptual understanding of statistics than to learn to perform a wide array of analyses, I emphasize the conceptual foundations of statistics and provide calculation procedures for only a few basic analyses. Furthermore, knowing that instructors differ widely in the degree to which they incorporate statistics into their methods courses, I have made it easy for individual instructors to choose whether or not students will deal with the calculational aspects of the analyses that appear. For the most part, presentation of statistical calculations are confined to a few within-chapter boxes, Chapters 11 and 12, and Appendix B.

This edition of *Introduction to Behavioral Research Methods* differs from the first edition in four primary ways. First, the new edition has added a second chapter that focuses on measurement. Following Chapter 3, which deals with basic measurement issues, Chapter 4 focuses in detail on observational and self-report approaches to measurement. A second change in this edition involves inclusion of a chapter on advanced correlational research strategies. Given the pervasiveness of approaches such as partial correlation, regression, path analysis, and factor analysis in the research literature, today's students need at least a conceptual introduction to these kinds of procedures. Although these topics were included in the first edition, combining them into a single chapter provides an additional degree of coherence to the material.

A third change in this edition involves a reorganizing of the material on the design and analysis of experiments. In this edition, two full chapters are devoted to experimental methodology and design (Chapters 9 and 10), followed by two chapters on the logic of hypothesis testing and inferential statistics (Chapters 11 and 12). Instructors who wish to de-emphasize the statistical aspects of the material will find it easier to do so now than with the first edition. Finally, the chapter on single-case research (Chapter 14) has been expanded to include a section on case study methodology.

Many people contributed their time and effort to this book. Thanks especially to the following reviewers: Michael Berzonsky, SUNY-Cortland; Clarke Burnham, University of Texas at Austin; Valerie Greaud Folk, Educational Testing Service; Elizabeth Glisky, University of Arizona; David Hogan, Northern Kentucky University; Robin Kowalski, Western Carolina University; Frederick Meeker, California State Polytechnic University at Pomona; Peter Mikulka, Old Dominion University; Jessie Namikas, Madonna University; Padraig O'Seaghdha, Lehigh University; Theron Stimmel, Southwest Texas State University; Margaret Thomas, University of Central Florida; Paul Toro, Wayne State University; Toni

Wegner, University of Virginia; and Shuqiang, Zhang, University of Hawaii at Manoa.

As a teacher and author, I know that there will always be some discrepancy between professors' and students' interest in research methods. I hope this book will help narrow the gap.

Mark R. Leary
Winston-Salem, NC

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