

RESEARCH METHODS **in PSYCHOLOGY**

EIGHTH EDITION

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To Paula
(J.J.S.)

*To the Memory of Ruth O'Keane,
James O'Keane,
Kathleen O'Keane Zechmeister,
and My Mother*
(E.B.Z.)

*To the Memory of
My Father, Harold W. Sumi*
(J.S.Z.)

Preface

It is a humbling experience to introduce the 8th edition of our textbook. We have benefited across the previous seven editions from numerous helpful comments made by both instructors and students so that sometimes it is hard to know what remain of our “original” ideas. Changes in this edition, too, reflect suggestions made by users of our textbook and we are, as always, greatly appreciative. We continue to strive to provide an introduction to research methods in psychology that both excites students about the research process and helps them to become competent practitioners of research methods.

Users of the previous edition of the textbook saw a major change both in the introductory chapter (Chapter 1) as well as the addition of more pedagogical aids (for example, margin icons to identify key concepts and boxed “Stat Tips” to better show the link between method and analysis). These changes were well-received and we continue them in the present edition. For those who are new to this textbook, let us first review our basic organization and approach. Those who have used the previous edition may want to go directly to “Changes in This Edition” to see what is new.

ORGANIZATION AND APPROACH

Our approach is based on our years of teaching experience. As instructors of research methods, we recognize that most students in our classes will be consumers of research and not producers of research. Students who choose to take on either role will benefit from developing critical thinking skills. We believe that we can best help our students think critically by taking a problem-solving approach to the study of research methods. Researchers begin with a good question and then select a research method that can best help them answer their question. The sometimes painstaking task of gathering evidence is only the beginning of the research process. Analyzing and interpreting the evidence are equally important in making claims about psychological processes. Researchers (and students) must analyze the strengths and weaknesses of the method they have chosen in order to be able to evaluate critically the nature of the evidence they have obtained.

Another feature that we continue from our last edition is the website designed for our book. There are interactive exercises and quizzes for students to test their knowledge of text material, as well as links to other important psychology websites. Instructors will find the instructor’s manual and lecture/discussion aids helpful. Both students and instructors may easily contact the authors via this site. Please come see us at www.mhhe.com/shaughnessy8.

As has been our approach for each edition, students learn that a *multimethod approach* to answering questions will best advance the science of psychology and that one goal of this book is to “fill their toolbox” with strategies for

conducting research. Thus, our organization following the introductory chapters is in terms of “methods,” moving from the simplest of observational techniques to complex experimental designs. We continue to include a separate chapter on “unobtrusive measures of behavior” to show students creative applications of the multimethod approach.

We remain sensitive to ethical issues in psychological research and to the dilemmas researchers face when they study animal or human behavior. To emphasize our concern we give “ethics” its own chapter (Chapter 3) but also discuss specific ethical issues in other chapters as they relate to particular methodologies. The increase in Internet-based research, for example, raises new ethical questions and we identify some of them for our readers.

Finally, we believe that research methods are best taught in the context of published psychological research. Thus, we continue to use the rich psychology literature to provide examples of ways in which researchers actually use the methods we discuss. It is always fun for us to update the research examples, while continuing to include important “classic” findings and studies that have proved effective in helping students learn research methods. We believe that one way to motivate students to join us on this exciting path of pursuing knowledge is to show the “payoff” that psychological research provides.

CHANGES IN THIS EDITION

We continue to use bullet points within the chapters and Review Questions at the end of chapters to help students see clearly the points we think are most important for them to learn. And we continue to rely on the Challenge Questions at the end of chapters to help students learn to apply the principles they have learned. Building on the model of the Challenge Questions, we have embedded Stretching Exercises in most chapters to allow students to apply research principles while they are learning about the principles. An extensive review of statistics remains at the end of the book (Chapters 12 and 13), and we continue to introduce these issues briefly in the appropriate places in the text. One way this is done is through a pedagogical aid we call “Stat Tips,” which draws students’ attention to questions of statistical analysis. In some cases we answer those questions for students; in other instances we refer them to material in Chapters 12 and 13. We believe our approach provides important flexibility that allows instructors to decide when and how they will cover statistics in a research methods course. In this edition we have tried to make the connection even clearer for students.

Changes in this edition have been aimed at economizing, simplifying, and updating. For example, partly at the urging of the editorial office of the American Psychological Association (APA), we have reduced greatly in Chapter 3 the amount of material taken directly from the published APA ethics code (American Psychological Association, 2002) and material from the fifth edition of the *APA Publication Manual* (2001) in Chapter 14. Less reliance on direct quotations from these sources makes for a simpler introduction to these issues while safeguarding the integrity of the original sources, which students are

urged to consult for more information. In addition, previous users will also notice the following:

- Minor changes have been made in sentence wording and paragraph structure in an effort to make it easier for students to understand concepts.
- Several major new research examples have been added (and older ones replaced). We have attempted to show students the “latest” in psychological research findings and, most importantly, to introduce studies that are relevant to today’s students and also help teach clearly the methodology illustrated in the examples. For example, we introduce in this edition an interesting study by Dittmar, Halliwell, and Ive (2006) that explores whether exposure to very thin body images causes young girls to experience negative feelings about their body. This clever “Barbie Doll” experiment illustrates well not only experimental methodology but also the relevance of psychological research to contemporary social problems. New research examples also are found in other chapters.
- We have kept some older examples because they not only remain relevant but have become “classics” as well. For example, we continue to include the well-known “lost-letter technique” (Merritt & Fowler, 1948; see Chapter 6) because it so nicely illustrates an ingenious use of an unobtrusive measure. (And besides, it allows us to keep a picture of Jeanne Zechmeister in Figure 6.2.) We also have kept the Langer and Rodin (1976) study of care in nursing homes (Chapter 11), which Zimbardo (2004) recently labeled a “classic” in the field of social psychology. This study, too, is a wonderful example of a particular research methodology, in this case, the nonequivalent control group design.
- Changes, too, have been made in some of the “stretching Exercises” and Boxes that appear across chapters in order to bring attention to timely psychological research. A new favorite of ours is a study employing urine-sniffing dogs to detect cancer in individuals (see Chapter 2). As readers will see, the Clever Hans effect is alive and still with us!
- Finally, if there is anything that brings out the gray hair in authors of a methods textbook, it is the perennial questions regarding the melding of statistical analysis with methodology: How much “stat”? Where does it go? These questions have taken on a new flavor given the recent debate over null hypothesis significance testing (NHST) (see Chapter 12 for a brief review of the issues) and the recommended use of effect size measures and confidence intervals by, among others, the APA Task Force on Statistical Inference (see Wilkinson & The Task Force on Statistical Inference, 1999). Use of these statistical tools to supplement or even replace NHST is growing, but slowly (Cumming et al., 2007; Fidler, Thomason, Cumming, Finch, & Leeman, 2004; Gigerenzer, Krauss, & Vitouch, 2004). Moreover, new statistical measures are being presented, as is illustrated by the recent flurry of interest in “probability of replication,” or p_{rep} (see Killeen, 2005). We mention this latest statistical innovation in Chapter 13 but will await further discussion in the psychological literature before enlarging our presentation. We continue to try to meet three goals in our presentation of

statistical analysis: (1) to provide an independent introduction to statistical analysis in Chapters 12 and 13 that will give students the means (no pun intended) to analyze a research study (and serve as a review for those who might already have had this introduction); (2) to show how method and analysis are related (see also our discussion of various methods and associated “Stat Tips”); and (3) to help students appreciate that there are many statistical tools available to them and they should not rely on only one as they seek to confirm what their data tell them (see our discussion of statistical issues throughout the text).

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The cumulative contributions of many people to the 8th edition of our textbook are impossible to acknowledge adequately. Most recently we wish to thank the following reviewers, as well as offer our regrets if we were not able to incorporate all of their suggested changes: Alice Ganzel at Cornell College, Rodger Narloch at St. John’s University, Jon Pettibone at Southern Illinois University–Edwardsville.

John J. Shaughnessy
Eugene B. Zechmeister
Jeanne S. Zechmeister

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PART ONE

General Issues



CHAPTER ONE

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