

## Research Methods: A Tool for Life

### Fourth Edition

*Research Methods* is an introduction to the importance of scientific research in everyday life and uses familiar examples to keep students engaged. The text analyzes controversies in psychology to stimulate student interest while explaining crucial methodological concepts. It presents ethical issues related to research, as well as social and cultural factors that might affect it, and provides a comprehensive introduction to a wide variety of methodologies. Through this book, students will learn how to generate research questions and select appropriate methodology, as well as to write a successful research report.

**Bernard C. Beins** is Professor of Psychology at Ithaca College. He has been President of the New England Psychological Association and the Society for the Teaching of Psychology.

# RESEARCH METHODS

A Tool for Life

Fourth Edition

**Bernard C. Beins**

Ithaca College



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*Once again, I dedicate this book to the most important people in my life:  
Linda, Agatha, Simon, Jenny, Evie, and Julian.*

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## PREFACE

Wouldn't life be interesting if you could predict the future? Some people claim to be able to do that. For instance, so-called psychics claim they can foretell the future. Unfortunately, the only accurate prediction is that after you leave them, they will have some of your money in their pockets.

It turns out, though, that it is possible to make reasonable predictions about the future. The best predictions that we can make involve the results of research. For example, meteorologists predict the weather every day based on scientific research and mathematical models. It is based on science, which means that their predictions are the best available, even if they aren't perfect.

The same is true of psychological science. Psychologists have used research to help us understand and predict behavior. This is what psychological science is all about. A course in research methods or experimental psychology will give you the tools to conduct research yourself. Any study you conduct could add to our knowledge of what people are like, how they behave, and what you might predict about them in the future.

For example, psychological research has identified the most effective approaches to treating problems like posttraumatic stress disorder. Researchers have also discovered strategies that maximize student learning, lead to effective group work, and increase life satisfaction.

These outcomes may not be dramatic, but they demonstrate that psychological science can be useful in helping us understand and predict behavior.

Your course in psychological research will let you develop skills needed to conduct research projects yourself. But even if you don't engage in research, this course will help you learn to evaluate information to determine if it is credible. This is one of the most important aspects of becoming scientifically literate and becoming an effective contributor to society, which increasingly relies on scientific knowledge. Scientific awareness is important because, with newly developed artificial intelligence applications, a computer can gather information and summarize it more quickly than a person can. But the computer can't evaluate the validity of claims that are made. That is something that you need to do. Understanding about research can aid you in evaluating claims that people make.

Ultimately, knowledge about research helps us have better lives through understanding human behavior. The purpose of this book is to show you how research has helped us to discover why we think, act, and behave as we do. Beyond this, it is as important to be able to recognize good research and to reject invalid claims as it is to be able to conduct your own studies. With this knowledge, you will be able to make better decisions as you move through life.

## Advantages to this Book

There are several advantages to using this book. I hope the format of the chapters and the varied features both enhance the learning of research techniques and

foster an appreciation of why research is important. The features include the following:

- Clear and engaging writing style that will capture the reader's interest.
- Presentation of important concepts without reliance on excess technical jargon.
- A chapter focusing specifically on diversity and its importance in understanding behavior.
- Presentation of research that involves diversity in sampling, going beyond the typical American undergraduate groups.
- Demonstrations of the wide range of methods that psychological scientists use to address varied research questions.
- Interesting examples that relate to the lives that people lead.
- Discussions that show how laboratory studies are important to everyday life.
- Explanations of research that has an impact on important societal issues.
- Inclusion of end-of-chapter practice quizzes with multiple-choice and short-answer items for each chapter.

## Using this Book

This book is intended for students who are newly involved in learning about and conducting research. Students who have completed a statistics course will be most able to begin their work as researchers as they go through the book. Students who have not yet learned the basics of statistics will come to grasp the subtleties of the research process so that, with some supplementary work, they can analyze the data they collect in their projects. Instructors do not need to follow the order of chapters. Students can benefit from the material in the book when the presentation of chapters is changed.

The order of the chapters is such that the first five chapters provide the basic philosophy of research and elements of critical thinking and scientific literacy. After students learn this introductory material, they will have the essential tools to create a research project.

The next set of chapters focuses on the experimental method. This is the approach that psychological scientists rely on to understand causes of behavior and is frequently the first approach they implement. Following the experimental chapters, there are chapters involving correlational research that is valuable in spotting relations among variables even when we cannot draw conclusions about causation.

Finally, I have included a chapter that specifically addresses diversity in psychological research. With the changes in society associated with issues of race, ethnicity, nationality, sex and gender, and so forth, it is important to be aware of the impact of these factors on the people we study.

## Supplementary Material

Part of the pedagogical package for this book is an instructor's manual with activities, demonstrations, and data-collection exercises. Data sets for increasing the power of statistical analysis are available to supplement data collected in small classes.

## Preface

There is also a test bank that contains multiple-choice questions, short-answer questions, and other integrative questions. The items generally focus on understanding concepts rather than simply repeating vocabulary, and they require that students go beyond simple memorization.

The supplementary material also includes PowerPoint files that track the material in the chapters. Some of the material in these files goes beyond what appears in the book so that the instructor can generate useful discussion of actual research projects.