

Research Foundations for

PSYCHOLOGY
and the
BEHAVIORAL
SCIENCES



F R A N K L O O S

Research Foundations for Psychology and the Behavioral Sciences

FRANK M. LOOS

Northeastern Illinois University



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CIP

*To Mary, who was there in the beginning of the Sunflower heat,
through the Brixton winters, and has stuck it out till now.*

*And special bones for two pals, little Coquette and little Bentley,
who slept through many dull and walkless hours of typing.*

Preface

Leaving for a vacation, the first date with a new friend, starting a new job, the initial class meeting in a tough course, or reading the preface in a new text—all produce mixed feelings. The beginning session of a required research methods course is not an event everyone looks forward to with happy anticipation. This book was written with those students in mind who feel a little uneasy about what they might be getting into. I hope this text will help every reader to discover what a great many people have known for a long time. The study of research methods is actually quite interesting, and the material is not nearly so difficult as tradition suggests.

Psychology and other behavioral sciences emphasize research, so statistics and experimental techniques are often required in their disciplines. No one, I think, expects to turn a nonscientist into a scientist in one term, but there are more limited objectives which I believe can be achieved.

We can learn the vocabulary and procedures of scientific investigation, how to do research, and why it is done in certain prescribed ways. By the end of this text readers will understand how to design and carry out good research that will lead to solid conclusions we can depend on. This understanding will be of value to those who go on for advanced degrees.

Even those who have no plans for research will find the material useful. As they learn to interpret research findings they will become more critical judges of the quality of research done by others. We are so overwhelmed with research findings these days, every educated person should be able to figure out “what is rot and what is not.”

I have tried to present material in a way that will help to make it meaningful to students who approach it with any of three different levels of skills. Students who have already had a course in elementary statistics will have an opportunity to put that information to good use. I have integrated many statistical ideas in the material where it is appropriate, so students who are studying statistics concurrently with the research methods course will appreciate the synthesis. Readers who have not studied any statistics will nevertheless be able to understand the logic of research methods and the rationale for a statistical evaluation of data. Computing information for several useful statistics is given in detail. A working knowledge of algebra is all that is required.

If I were a professor of English literature who had to choose whether to study 15 of Shakespeare's plays superficially or to study 5 of his plays thoroughly, I would choose the 5-play approach. I believe a beginning course should teach *how to study a subject*. Method is more important than content. People who have learned to enjoy Shakespeare's plays and how to read them will go on to read many of his other plays on their own. I think the function of education is to train people to become lifetime learners.

Instead of an inadequate overview of a large number of topics, I have chosen to provide a fuller coverage of subjects I consider to be foundation material of the discipline. As an example of this, I will devote a great deal more attention to measurement than is common in beginning texts. I think that what we measure and how we measure it are very important in behavioral science research. Although the research material does not lend itself to structure, I have done what I can to organize it into a logical sequence that makes it easier to follow.

I want to call particular attention to several features that make this research methods text different from the many available alternatives.

Meaningful examples and illustrations are important for highlighting concepts and ideas. Although that might be done in a sentence or two, I have expanded a number of stories well beyond that limit, simply because I think they are interesting and I believe many readers will agree with me. I must be true to the complexity of the content, but I have worked very hard to emphasize the *reasons* rather than just presenting facts.

Although I enjoy science and take it seriously, I see no contradiction between humor and science. I have tried to write a science book that is not too stuffy. Any humorous-sounding bits that readers run across were probably intentional. I have even gone so far as to express a personal opinion occasionally, as a person talking with another might.

Several forms of teaching aids are important to my presentation. Many study questions are given at the end of most chapters. Some of the questions help to review the material and are specific to it. Anyone who can fully answer all relevant study questions will almost certainly get high test grades. Other questions are included to stimulate discussion. Some questions might not even be answerable, but that is what makes them interesting. Where the material is appropriate, certain chapters have special projects or assignments that implement the material just studied.

Endnotes introduce additional material that I think illustrates the subject matter in the chapters, but which could not be included directly in the text without markedly interfering with the flow of the discussion. My objective has been to broaden and expand the study of psychology by hinting at the diversity of its topics.

I have brought one other feature to this text that will not long go unnoticed. In the Small Talk diversions, I have created a new type of joke/cartoon combination. These range rather widely in content from comments on legitimate topics relevant to psychology to conversations that might have occurred among college people. College students and faculty will quickly identify familiar themes in some of them. As with all humorous materials, if they have to be explained they will not be funny. Readers who recognize themselves in a particular situation should

get a smile. Several technical ideas about I.Q. or cross-modality scaling, for example, are meant for readers with a broader background in psychology. And the several with the Latin phrases—well, why not stretch a little! Every class has someone who remembers these stock phrases from high school Latin class.

Many versions of various chapters have been examined by more than two dozen very critical reviewers. Their numerous comments, suggestions, and corrections—with occasional praise and encouragement—have made the text much better than it could possibly have been without their help. As they read this text they will see their contributions and note how often I have used their ideas. I am especially grateful to the half-dozen reviewers who sent lengthy and detailed evaluations. The reviewers include:

Mary Anne Baker, Indiana University Southeast
 W. Robert Batsell, Jr., Southern Methodist University
 Gail Bruder, State University of New York, Buffalo
 Mark K. Covey, Concordia College
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 John Pfister, Dartmouth College
 Patricia Phillips, Illinois State University
 Sylvia von Kluge, Eastern Michigan University
 Benjamin Wallace, Cleveland State University
 Allen Wallach, Illinois Institute of Technology
 Patrick S. Williams, University of Houston.

In addition, I would like to express my appreciation for the fine Smalltalk cartoon artwork done by the illustration team at Dartmouth Publishing, Inc. The Smalltalk creations are one of the unusual features of this text. I gave them the script and some general ideas, which they turned into cartoons that carry the tone of whimsy that I wanted, while maintaining the character of the message. I am delighted that they several times worked in original and creative ideas of their own that I am sure will add to the reader's enjoyment. The pun in the title of a book carried by a spectral manifestation (*Ghost Writing*) in one of the Smalltalk cartoons is strictly theirs—but I wish I had thought of it.

I also want to recognize the significant contributions by Suzanne Ivester, my copyeditor. Her practiced pen picked up the participles that I had unknowingly left dangling. She put in commas that I had left out, took out commas that I had put in—and showed me that dashes can be useful. She questioned ambiguities and then rewrote passages to clarify and simplify them. In a myriad of ways, many of which I do not even understand, she respelled and regrammared until the manuscript finally obtained her imprimatur. Everyone who

studies this text should be grateful to her, as I am, for her work in making it better and more readable.

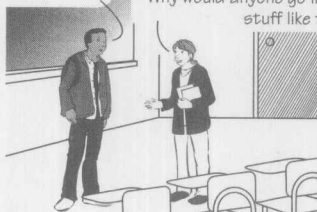
The work of Tracey Topper at York Production Services will be evident throughout the book. As Production Coordinator on this project, she used her personal psychological skills to make suggestions or to achieve a consensus among sometimes disparate points of view. Her experience and technical knowledge brought the work of many people together to transform my typescript into a printed book, that, like the clothing of a well-dressed person, will be appreciated without being obvious.

For inspiration, Benton J. Underwood has more than earned my thanks and the appreciation of several generations of psychologists with his *Experimental Psychology*. His text stands out as the definitive scholarly work on this topic. Readers of my text will see how often I have turned to Underwood for important ideas.

I want particularly to thank Hans J. Eysenck for his instructive guidance during my Ph.D. work at the University of London. He set the example and gave me the opportunity to learn about research in psychology—by doing it.

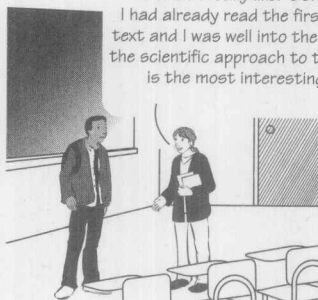
SMALL TALK

I've put it off as long as I can, now this is it. First meeting of the experimental class. Too late to turn back now.



Isn't this great! I am so excited I can hardly wait. I have been looking forward to taking the experimental psych course ever since I started college. I wanted to take it right away, but they wouldn't let me. The department felt that I needed a background in general topics. I found those applied courses really dull—you know, the ones designed to help me better understand myself and other people. What nonsense! Why would anyone go into psychology for stuff like that.

I did enjoy the statistics course though. I'll probably take more statistics courses just because the subject is so interesting, but experimental psych is what I really like. Before the class began I had already read the first two chapters of the text and I was well into the third. Don't you think the scientific approach to the study of psychology is the most interesting subject there is?



Some people really know how to ruin what could have been a nice conversation.



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