



培文书系·心理学系列



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心理学系列

# 心理学研究方法

第 9 版



〔美〕 拉里·克里斯腾森 著



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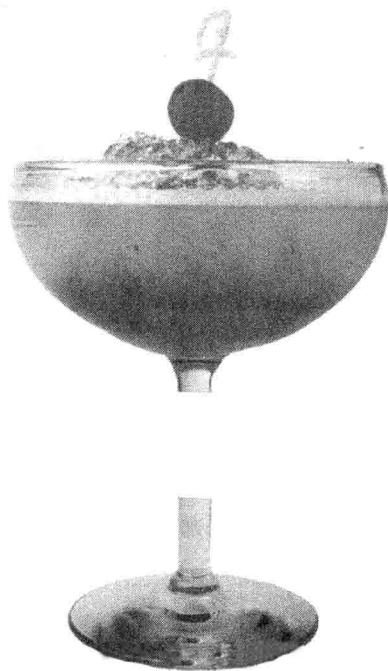
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# 出版说明

培文书系心理学英文影印系列旨在面向心理学领域的师生和广大心理科学的从业者和爱好者,推介国外心理学领域的英文原版专著和教材,使我国读者能够接触到原汁原味的第一手资料。

需要重申的是,作者本人的有些观点和结论尚需商榷,有些甚至是不可取的,为此提请读者加以甄别。书中的观点均不代表出版社观点。

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# 前言

很高兴向大家介绍《心理学研究方法》一书的第9版。在撰写本书第1版的时候,我的写作目标是,向读者提供一本关于心理学研究基本原则的介绍性读本,通过举例来说明我的每一个观点,从而尽可能清楚、直白地介绍研究方法中的基本原则。本书所有后来的版本都始终贯彻这一写作目标,当然包括现在这一版。虽然心理学研究的基本原则不易随时间而变化,但经过了几年的时间还是发生了一些改变,所以这一版的修订很有必要。在第8版修订的时候,定性研究方法、计算机技术、因特网影响的增强逐渐成为关注的焦点。现在这一版本延续了这一趋势,因为在心理学研究领域这些变化的影响持续不断,而且越来越重要。Shadish, Cook 和 Campbell (2002) 合著的《实验和准实验设计》一书对现在这一版的修订影响很大,他们都是研究方法创新的领袖,他们的著作也不断地证明了这一点,本书吸收了他们书中的一些先进的东西。

## ■ 本书的结构

为了便于介绍心理学研究的基本原则,我按研究的步骤来组织本书的内容。第一章介绍基本的科学方法,讨论科学方法的特性和目的。这一章的目的是引导学生理解科学——让他们认识到科学的调查与非科学的调查所获信息之间的不同。然后,讨论科学的性质,以便学生正确评价定量和定性两个不同的研究过程,认识实验和非实验的定量研究过程之间区别。接下来介绍怎样确认研究问题,帮助学生找出一个好的研究思路,重点强调文献检索和使用数据库寻找相关文献的必要性。

因为在设计和进行研究时一定要时刻注意研究的道德规范,所以接下来的章节便讨论心理学研究中涉及到人和动物时的道德规范。因为一定要有研究设计,才能利用收集的数据形成正确的结论,所以还要讨论实验研究的有效性问题的,重点讨论从规定自变量的有

效性问题到概括的有效性等问题等实验研究的全部阶段。因为只有消除对内在有效性的威胁后,才能从实验提供的数据得出有效的因果关系,所以我们又要讨论控制技术。再下来的几章向学生介绍实验的、准实验的和单一情形的设计,使学生了解测试假定的各种方法的知识。最后几章重点介绍如何收集数据、统计分析以及在研究报告中如何组织这些分析结果。

## ■ 教学特点

在每一章中我都采用了一些有特色的教学方法来加强学生对教材内容的理解。在书中每一章的开始都用一个流程图扼要介绍该章内容。书中的 EXHIBIT 栏目是选自杂志、报纸报道的一些事件,这不仅激发了读者的兴趣,而且表明日常生活与有益的心理学研究之间存在着诸多联系。每一章流程图之后是该章的摘要,它阐明了该章的目的。每章中重要的术语和概念都用黑体字显示,并都在旁注中进行释义,从而使学生最大可能地理解这些术语和概念的正确涵义。在每章中有时还会提出一些问题,以促进读者的学习和记忆。每章的结尾部分是,该章的小结、主要概念和术语的列表、讨论该章议题的有关网站的网址。每章结束时都设计了一个小测试,通过它学生可以测试自己对该章概念的掌握程度;在这之后还有一些挑战性练习,让学生亲身经历一些真正做实验时所需要的活动。

## ■ 第 9 版的新内容

第 9 版保留了早先版本的格式和目标。不管怎样,即使进步较小,每本书的内容和作用还是有所加强和完善。在第 9 版中,我重写了部分内容,使其表述更加清楚。更新了部分内容,吸收了反映心理学研究方法演化特征的一些变化。具体的变化如下:

1. 改变了一些章节中的事例,以确保列举的事例能够反映时事。
2. 每章结尾的练习测试,使学生对于自己的理解能够有一些反馈。
3. 每章结尾的挑战性练习,能够提供给学生体验该章介绍的研究程序中的有关各方面经验。
4. 每章开始的流程图,说明了该章的概念和主题。
5. 每章的摘要使学生能够概览该章内容。
6. 在第 2 章中,增加了使用因特网进行电子调查的简短讨论。
7. 在第 3 章延长了因果关系的讨论,描绘原因和效果之间的不同,使原因的描述和原因的解释区分开来。
8. 第 4 章增加了使用互联网进行学术研究的讨论,增加的部分着重介绍万维网

(World Wide Web), 以及训练从互联网获得信息时所必要的谨慎性。

9. 在第 5 章吸收五条基于 APA 的基本道德规范, 这些原则是在用人类作受试者的研究中所遵循的基本道德规范。我也提供了 APA 最新修订版(2002)有关道德规范的编码, 探讨了诸如被动而积极同意等一些告知同意的问题。
10. 讨论不受约束和受约束的变量的可靠性和有效性, 增加了测量误差的概念和评估可靠性和有效性的一些方法等内容。
11. 第 7 章扩大了对统计类型, 结论的有效性、内在的有效性、结构的有效性和外部的有效性这四种不同有效性的讨论。
12. 第 8 章的名字改为控制技术。
13. 为了和 Shadish 等人的著作(2002)相一致, 改变了第 9 章一些实验设计的名字。
14. 在第 10 章中将非等价控制群体设计的说法变成了非等价比较群体设计, 还讨论了利用非等价比较群体设计得出推论的范围和恢复非连续设计。
15. 第 14 章作了一些改变以反映 APA 出版手册最新版本的变化。

## ■ 致谢

《心理学研究方法》的第 9 版和早先的版本, 是我从许多同事和学生那里吸收了很多优秀成果而形成的产品。虽然我不能采纳所有的建议, 但我将由衷地感谢, 并保证认真思考和衡量每个建议。如果没有这样持续不断地采纳高质量的建议, 这本教科书恐怕也不可能得到大家如此的认可。我希望所有老师和学生继续给我提供坦诚的建议——无论是肯定的还是否定的——以及我可能忽略的对于任何材料的变更和增加的建议, 我将会真诚接受每个建议并将会在我的下一版本中尽量采纳。可以将建议发到南亚拉巴马州大学心理学系, 移动电话, AL36688, 或发电子邮件到 [lcriste@usouthal.edu](mailto:lcriste@usouthal.edu)。

我要感谢为本书写书评并提出宝贵意见的教授, 感谢 Allyn & Bacon 的全体员工, 感谢他们的长期支持和对本版教材的精心处理。特别感谢我的编辑 Kelly May 以及她的助理 Marlana Voerster。

# Preface

It is with great pleasure that I present you with the ninth edition of *Experimental Methodology*. My goal in writing the first edition of this textbook was to provide an introduction to the basic principles of psychological research. I wanted to write a textbook that explained the key principles of the research process in as clear and straightforward a manner as possible, using examples to illustrate each of my points. This goal has guided all the subsequent editions, including the current one. Although these principles of psychological research tend to remain invariant over time, there are always some changes that take place over the years that necessitate a revision such as this one. The last edition was revised to reflect the increased focus of attention on qualitative research methods, computer technology, and the increased impact of the Internet. The current edition continues this trend because the impact of these changes on the field has not only continued but become more significant. The revisions in the current edition were greatly influenced by the publication of Shadish, Cook, and Campbell's (2002) *Experimental and Quasi-Experimental Designs*. These individuals have been innovative leaders in research methods and their book continues to reflect this leadership. A number of the advances that are presented in their book have been incorporated into the current edition of *Experimental Methodology*.

## Organization of the Textbook

In presenting the basic principles of research, I have chosen to organize this textbook to follow the steps involved in the research process. The first chapter presents a discussion of the basic scientific method, including a discussion of its characteristics and objectives. The intent of the chapter is to orient students to science—to give them a sense of the difference between information that is acquired through scientific inquiry and nonscientific inquiry. Following a discussion of the nature of science, the different research processes, quantitative and qualitative research, are introduced to provide students with an appreciation of both processes. A distinction is made between experimental and nonexperimental quantitative research to ensure that students recognize the difference between these two research processes. The identification



of a research question is then covered to assist students in developing a good research idea. Emphasis is given to the necessity of conducting a literature review and to using databases in searching for relevant literature.

The ethics of research, both human and animal, are discussed next because the consideration of ethical issues must be kept in mind in the design and conduct of a study. Validity issues in experimental research are then discussed because studies must be designed so that the inferences that are made from the data collected are correct. The validity issues that are discussed focus on all phases of experimental research from the validity of the specification of the independent variable to the validity of the generalizations that can be made. Control techniques are discussed next because the threats to internal validity must be eliminated to have an experiment that provides data from which valid causal inferences can be made. The next several chapters expose students to experimental, quasi-experimental, and single-case designs to give them knowledge of the various approaches that can be used to test hypotheses. Following these chapters on design are chapters that focus attention on data collection and statistical analysis, as well as on communication of the results in a research report.

## **Pedagogical Features**

In each chapter, I have incorporated a number of pedagogical features that are designed to improve the student's comprehension of the material presented. Each chapter begins with a flow chart revealing the contents of the chapter. A vignette, taken from events reported in magazines and newspapers, is presented to not only enhance interest in the material, but to also demonstrate the connection and value that exists between everyday life and good psychological research. This is followed by a chapter preview that identifies the goals of the chapter. Each chapter highlights the important terms and concepts and includes marginal definitions to maximize the probability that students will acquire the appropriate definition of these terms and concepts. Study questions are spaced throughout the chapter to enhance learning and the retention of the material read. Each chapter ends with a summary of the chapter material as well as a list of key concepts and terms and a list of relevant Internet sites that discuss the issues covered in the chapter. A short practice test appears at the end of the chapter that should allow the student to test his or her knowledge of the concepts covered; these are followed by challenge exercises that should give the students concrete exposure to and experience with performing some of the activities required in the conduct of an actual experiment.

## **New to the Ninth Edition**

The ninth edition retains the same format and goals of the previous edition. However, every book can be strengthened and improved even if these

improvements are minor. In the ninth edition I have done some rewriting to improve the clarity of the text, updated selected portions of the textbook, and also incorporated changes that reflect the evolving nature of psychological research methods. The changes that were made are as follows:

1. Several of the vignettes introducing the chapters have been changed to ensure that the examples reflect current events.
2. A practice test has been included at the end of each chapter to allow the student to receive some feedback regarding his or her understanding of the concepts covered.
3. Challenge exercises have been included at the end of each chapter to give the student some experience with various aspects of the research process covered in the chapter.
4. A flow chart is presented at the beginning of each chapter to illustrate the concepts and topics that are covered in the chapter.
5. Each chapter begins with a chapter preview that gives the student an overview of the material to be covered in the chapter.
6. In Chapter 2, I have included a brief discussion of using the Internet to conduct an electronic survey.
7. In Chapter 3, I have extended the discussion of causation to delineate the difference between cause and effect and to make a distinction between causal description and causal explanation.
8. In Chapter 4, I have extended the discussion of the use of the Internet to conduct a literature search. Much of this additional discussion focuses on the World Wide Web and the cautions that must be exercised when obtaining information from the public Internet.
9. In Chapter 5, I have incorporated the five basic moral principles that according to the APA should be adhered to when conducting research with human participants. I have also presented the most recent (2002) revision of the APA code of ethics and discussed several issues surrounding informed consent, such as passive versus active consent.
10. The discussion of reliability and validity of independent and dependent variables has been expanded to include the concepts of measurement error and some of the ways of assessing reliability and validity.
11. In Chapter 7, I have expanded the discussion to include the four different types of validity—statistical conclusion, internal, construct, and external validity. (Thus Chapter 14 in the eighth edition is now part of Chapter 7 in the ninth edition.)
12. The name of Chapter 8 has been changed to Control Techniques.
13. Some of the names of the designs in Chapter 9 have been changed to be consistent with those identified in Shadish et al. (2002).
14. In Chapter 10, the name nonequivalent *control* group design has been changed to nonequivalent *comparison* group design. I have also included a discussion of the extent to which causal inference can be made from the

nonequivalent comparison group design and a discussion of the regression discontinuity design.

15. Chapter 14 has been altered to reflect the changes in the most recent edition of the *APA Publication Manual*.

## Acknowledgments

The ninth edition of *Experimental Methodology* is, as were the previous editions, a product of the excellent input I have received from many colleagues and students. Although I have not been able to incorporate all the suggestions given to me, I can assure everyone that each suggestion was carefully considered and weighted and I thank you for them. Without this continuous high-quality input, the textbook would not be as well received as it is. I encourage both faculty and students to continue to provide me with their candid comments—both positive and negative—as well as with suggestions for alterations and additions of any material I may have omitted. I will take each suggestion seriously and will do my best to include your suggestions in the next edition. You can send your comments to me at the Department of Psychology, University of South Alabama, Mobile, AL 36688, or e-mail me at [lcriste@usouthal.edu](mailto:lcriste@usouthal.edu).

I also thank the professors who have reviewed this book and provided valuable input.

Finally, I thank the staff at Allyn & Bacon for their continued support and careful handling of the current edition. Special thanks go to my editor, Kelly May, and to her assistant, Marlana Voerster.

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