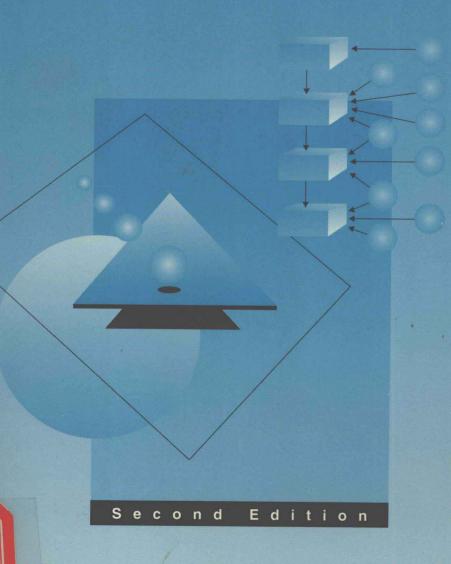
# Research in Social Work An Introduction



# Research in Social Work

# An Introduction

Second Edition

Margaret Williams Leslie M. Tutty Richard M. Grinnell, Jr.

> Faculty of Social Work The University of Calgary



Copyright © 1995 F. E. Peacock Publishers, Inc. All rights reserved. Library of Congress Catalog Card Number: 94-66868 ISBN: 0-87581-388-7 Printed in the U.S.A. 2 3 4 5 6 7 8 9 10

# Preface

HIS BOOK is the second edition of *Research in Social Work: A Primer*. With the help and encouragement of a new coauthor, the revisions became so extensive that we decided to retitle the book in order to more accurately reflect its contents. Nevertheless, the intended audience remains the same as in the first edition—the generalist BSW student taking a one-semester (or quarter) beginning social work research methods course.

# **GOAL AND OBJECTIVES**

Our goal has been to write a "user-friendly," straightforward introduction to social work research methods couched within the positivistic research tradition—the approach most commonly used to generate relevant social work knowledge.

To accomplish our goal, we strived to meet three simple objectives. Our first objective was to include only the core material that is realistically needed in order for the BSW student to appreciate and understand the role of research in social work. Our guiding philosophy was to only include research material that a BSW student needs to know to function adequately at an entry-level social work position; information overload was avoided at all costs. Our second objective was to prepare BSW

students to become beginning critical consumers of the professional research literature. Finally, our third objective was to provide the BSW student with a solid foundation for more advanced social work research courses and texts.

## What This Book Does Not Do

With the above goal and objectives in mind, we have eliminated research material that an undergraduate student in social work does not need to know. First, we do not prepare the BSW student with the necessary knowledge and skills to actually conceptualize, operationalize, and carry out a research study—no introductory research methods text can accomplish this. We believe this task is best left to graduate-level social workers who have obtained those skills from intermediate or advanced research methods books that were geared toward the graduate level.

In introductory social work research methods texts that are on the market today, authors state that their books can be used at both the undergraduate and graduate levels. However, we are of the opinion that a single book that can be utilized at both levels is doing our students and our profession a disservice. We firmly believe that there should be two levels of research methods books: those such as this one, that provide an introduction to research methods written for BSW students, and those that provide more substance and intermediate (or advanced) theoretical discussions of research methodology that were written for MSW and PhD students.

Second, we neither attempt to present an "original" integration of the various ways of knowing nor attempt to "blend" quantitative and qualitative research approaches to form a "unique research continuum" of some kind or another. There are other books on the market that to do this. More importantly, we are of the belief that the breath and depth of these tasks extend far beyond what a BSW student needs to know, to appreciate, to understand, as well as to become a beginning critical consumer of the research literature—the objectives of our book.

In addition, some of the other "postpositivistic" approaches to social work research, such as the heuristic approach, have not yet generated practice-relevant findings that are of any practical use to social work practitioners. We feel that a BSW student needs to thoroughly understand and appreciate one tried and proven research approach (the positivistic approach) before he or she can begin to understand how other nonpositivistic research approaches can be useful in the generation of practice-relevant social work knowledge. We are of the opinion that increasing the students' capacity for critical thought via the positivistic research approach will improve their readiness to take additional research courses and to read more advanced research methods books.

# THEME AND ORGANIZATION

Like the original, this edition is organized to reflect the four phases of the problem-solving method. The major theme is that knowledge of the problem-solving process enhances the effectiveness of professional social work practice. The material presented in this book is explained in terms of social work examples that BSW students will appreciate. Many of the examples center around women and minorities, in recognition of the need for social workers to be knowledgeable of their special needs and problems. We have given special consideration to the application of research methods to the study of questions concerning these groups.

In this spirit, we begin where every researcher begins-that is, with finding a meaningful problem area to study within a social work context (Chapters 1-3) and developing middle-range theories and initial hypotheses (Chapters 4 & 5). We proceed from measuring variables (Chapters 6 & 7), constructing research designs (Chapters 8-12), and collecting (Chapters 13 & 14) and analyzing data (Chapter 15) through proposal and report writing (Chapter 16).

# LEARNING FEATURES

We have incorporated a number of learning features in our book:

- Each chapter contains ten study questions that can be used to assess the readers' mastery of the material.
- Each chapter contains extensive up-to-date advanced readings that can be helpful in obtaining more information about a chapter's content.
- Boxes are inserted in each chapter to complement and expand the text; these present interesting research examples, provide additional aids to learning, and offer historical, social, and political contexts of social work research.
- A glossary of all key terms contained in the chapters is provided at the end of the book.

#### ACKNOWLEDGMENTS

We have been teaching social work research methods for quite some time. We thank the countless number of BSW students whom we have had the privilege of teaching (and learning from) as they have directly contributed to the conceptual development of this book.

We would like to thank our dean, Ray J. Thomlison, Faculty of Social Work at The University of Calgary. Without Ray's support and encouragement, this book would have never seen the light of day. We are proud

to be among the few authors who have the privilege of working with, and for, a competent dean. Our thanks to Ray for providing us with an academic atmosphere in which to work and for establishing one of the finest social work faculties that we have seen.

Our thanks go to Terry Teskey for copy editing the initial drafts of the manuscript and to John Beasley for copy editing the final draft. We would be remiss not to mention that the people at F.E. Peacock Publishers have been more than supportive in our second adventure, and it is once again a privilege to publish under the Peacock banner.

# **Copyright Acknowledgments**

We thank the following publishing houses for providing permission to reprint their material:

- Figure 1.1: Adapted and modified from Wayne D. Duehn, "Practice and Research," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (2nd ed.). Copyright © 1985 by F.E. Peacock Publishers. Used with permission.
- Boxes 1.1, 3.1, 3.2, 4.2, 5.1, & 5.2: From Approaches to Social Research, Second Edition, by Royce A. Singleton, Jr., Bruce C. Straits, and Margaret Miller Straits. Copyright © 1988, 1993 by Oxford University Press, Inc. Reprinted by permission.
- Figure 1.2: Adapted and modified from Richard M. Grinnell, Jr. and Deborah H. Siegel, "The Place of Research in Social Work," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (3rd ed.). Copyright © 1988 by F.E. Peacock Publishers. Used with permission.
- Boxes 2.1, 2.2, 2.3, 3.3, 4.1 (by Patricia Fisher), & 12.2: From Research Methods for Social Work, 2nd Edition, by Allen Rubin and Earl Babbie. Copyright © 1993 by Brooks/Cole Publishing Co. Reprinted by permission.
- Figure 2.2: Source: Code of Ethics of the National Association of Social Workers, part 1, sect. E (Silver Spring, MD: National Association of Social Workers, Inc.), p. 4. Used with permission.
- Figure 5.1: Adapted and modified from Norman J. Smith, "Formulating Research Goals and Problems," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (3rd ed.). Copyright © 1988 by F.E. Peacock Publishers. Used with permission.
- Figure 5.2: Source: Eva Ferguson, *Calgary Herald*, Calgary, Alberta, Canada, September 6, 1991, Sect. A, p. 1. Used with permission.
- Figure 5.3: Source: Calgary Herald, Calgary, Alberta, Canada, September 6, 1991, Sect. B, p. 6. Used with permission.
- Figure 5.4: Adapted and modified from Michael Rothery, "Problems, Questions, and Hypotheses," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Figure 6.1: General Contentment Scale. Copyright 1992, Walter W. Hudson. Used with permission.

- Figure 6.2: From Gerald J. Bostwick, Jr. and Nancy S. Kyte, "Measurement," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation. Copyright © 1981 by F.E. Peacock Publishers. Used with permission.
- Figure 7.1: Adapted and modified from Deborah H. Siegel, "Integrating Data-Gathering Techniques and Practice Activities," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (3rd ed.). Copyright © 1988 by F.E. Peacock Publishers. Used with permission.
- Figure 7.2: Adapted and modified from Michael J. Austin and Jill Crowell, "Survey Research," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (2nd ed.). Copyright © 1985 by F.E. Peacock Publishers. Used with permission.
- Figure 7.3: Adapted and modified from Charles H. Mindel, "Instrument Design," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Pages 116, 118-119, 120, 121-125: Adapted and modified from Cathleen Jordan, Cynthia Franklin and Kevin Corcoran, "Standardized Measuring Instruments," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Chapters 8, 9, & 11: Adapted and modified from Richard M. Grinnell, Jr., "Group Research Designs," in Richard M. Grinnell, Jr. (Ed.). *Social Work Research and Evaluation* (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Figure 11.7: Adult/Adolescent Parenting Inventory (AAPI) by Stephen J. Bavoleck. Copyright © 1984. Family Development Resources, Inc. Used with permission
- **Tables 12.1, 12.2, & 12.3**: Adapted and modified from, Peter A. Gabor, "Sampling," in Richard M. Grinnell, Jr. (Ed.). *Social Work Research and Evaluation* (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Figures 12.1 & 12.2: Adapted and modified from, Peter A. Gabor, "Sampling," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Box 12.1: From *Interviewer's Manual* (Revised Edition). Copyright © 1976 by the Survey Research Center, Institute of Social Research, University of Michigan. Used with permission.
- Figure 13.1: Adapted and modified from Charles H. Mindel and Lynn McDonald, "Survey Research," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (3rd ed.). Copyright © 1988 by F.E. Peacock Publishers. Used with permission.
- Figure 13.2: Adapted and modified from Michael J. Austin and Jill Crowell, "Survey Research," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (2nd ed.). Copyright © 1985 by F.E. Peacock Publishers. Used with permission.
- Figures 13.3, 13.4, & 13.5: Adapted and modified from Don A. Dillman, Mail and Telephone Surveys: The Total Design Method. Copyright © 1978 by John Wiley & Sons, Inc. Reprinted by permission of John Wiley & Sons, Inc.

- Figures 13.6 & 13.7: Source: W.V. Clemens, "Test Administration," in R.L. Thorndike (Ed.), *Educational Measurement* (2nd ed.). Copyright © 1971 by the American Council on Education. Used with permission.
- Figure 13.8: Source: Shirley Jenkins and Elaine Norman, *Filial Deprivation* and Foster Care. Copyright © 1972. Reprinted by permission of the publisher, Columbia University Press.
- Figure 13.9: Adapted and modified from Steven L. McMurtry, "Survey Research," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Figure 14.1: From Richard M. Grinnell, Jr., and Margaret Williams, *Research in Social Work: A Primer*. Copyright © 1990 by F.E. Peacock Publishers. Used with permission.
- Pages 270-272: Adapted and modified from Craig Winston LeCroy and Gary Solomon, "Content Analysis," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Figure 15.5: Source: Donald W. Beless, "Univariate Analyses," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation. Copyright © 1981 by F.E. Peacock Publishers. Used with permission.
- Pages 311-312, 319-320, 323, 324, 325-326: Adapted and modified from Joel Fischer, "Evaluating Positivistic Research Reports," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.
- Glossary: Adapted and modified from Irene Hoffart and Judy Krysik, "Glossary," in Richard M. Grinnell, Jr. (Ed.). Social Work Research and Evaluation (4th ed.). Copyright © 1993 by F.E. Peacock Publishers. Used with permission.

# A LOOK TOWARD THE FUTURE

Research courses in undergraduate social work education are continuing to grow and develop, and we believe this edition will contribute to that growth. A third edition is anticipated, and suggestions for it are more than welcome. Please send your suggestions directly to Richard M. Grinnell, Jr., Faculty of Social Work, University of Calgary, Calgary, Alberta, Canada T2N 1N4, or call (403) 220-6154 or FAX (403) 282-7269.

MARGARET WILLIAMS LESLIE M. TUTTY RICHARD M. GRINNELL, JR.

# Contents in Brief

PART I / FOUNDATIONS

1. Introduction 3

2. Research Contexts 24

PART II / PROBLEM FORMULATION	
3. Research Problems 49	
4. Research Questions 64	
5. Research Hypotheses 81	
6. Measurement 99	
7. Measuring Instruments 115	
PART III / RESEARCH DESIGNS  8. The "Ideal" Experiment 135  9. Internal and External Validity 1  10. Single-System Designs 161  11. Group Designs 195  12. Sampling 223	47
PART IV / COLLECTING DATA	
13. Surveys <b>241</b>	
14. Nonsurveys 261	
15 Data Analysis 277	
<ol><li>Writing Proposals and Reports</li></ol>	304
Glossary 329 / Index 344	

# Contents in Detail

```
FOUNDATIONS 1
   1. INTRODUCTION
      Ways of Obtaining Knowledge
         Tradition / Authority / Practice Wisdom / The Problem-
         Solving Method
      The Problem-Solving Method
      Characteristics of the Problem-Solving Method
         Striving Toward Empiricism / Striving Toward
         Objectivity / Striving Toward Reducing Uncertainty /
         Striving Toward Duplication / Striving Toward the Use of
         Standardized Procedures
      Definitions of Research
      The Social Worker's Roles in Research
         The Research Consumer / Knowledge Creator and
         Disseminator / Contributing Partner / Integrating the
         Three Research Roles
      Summary
                  20
```

iv

Preface x

PART I

**Study Questions** 20 References and Further Readings 21

# 2. RESEARCH CONTEXTS

**Factors Affecting Research Studies** 

The Social Work Profession / The Social Work Agency / The Researcher / The Social Work Practitioner / Ethical Considerations / Political and Social Considerations

Summary 44

**Study Questions** 

References and Further Readings 45

# PART II

PROBLEM FORMULATION

# 3. RESEARCH PROBLEMS

Factors Influencing Problem Selection

The Researcher / Professional and Agency

Considerations / Personal, Social, and Cultural Values /

Opportunity or Luck

Criteria for Research Problems

Relevancy / Researchability / Feasibility / Ethical Acceptability

Summary

Study Questions

References and Further Readings 62

# 4. RESEARCH QUESTIONS

Types of Research Questions 64

Exploratory Research Questions / Descriptive Research Questions / Explanatory Research Questions

Concepts 68

Abstract Definitions Within Concepts

Conceptualization 70

Operationalization

Operational Definitions

Variables 73

> Independent and Dependent Variables / Extraneous Variables

> > 82

Constants 76

Summary 78

Study Questions 79

References and Further Readings 80

# 5. RESEARCH HYPOTHESES

Criteria for Good Hypotheses

Relevance / Completeness / Specificity / Potential for Testing Types of Hypotheses 84 Research Hypotheses / Rival Hypotheses Steps in Formulating Hypotheses Step 1: Identifying the Problem Area / Step 2: Gathering Information and Categorizing Ideas / Step 3: Formulating the Research Question / Step 4: Conceptualizing and Operationalizing Variables / Step 5: Formulating the Final Hypothesis From Problems to Questions to Hypotheses Summary Study Questions References and Further Readings 97

## 6. MEASUREMENT 99

Measurement Validity 100

Content Validity / Face Validity / Concurrent Validity / Predictive Validity

Measurement Reliability 105

Test-Retest Method / Alternate-Forms Method / Split-Half Method / Coefficient Alpha Method

The Validity-Reliability Relationship 109

Measurement Error 109

Constant Errors / Random Errors

Summary 112

Study Questions 112

References and Further Readings 113

#### 7. Measuring Instruments 115

Standardized Measuring Instruments 115
Advantages

Formats of Standardized Instruments 121

Rating Scales / Questionnaire-Type Scales / Modified Scales

Nonstandardized Measuring Instruments 125

Advantages / Disadvantages

Summary 130

Study Questions 131

References and Further Readings 131

#### PART III

RESEARCH DESIGNS 133

8. The "IDEAL" EXPERIMENT 135
Characteristics of "Ideal" Experiments 135

Time Order of Variables / Manipulation of the Independent Variable / Relationships Between Variables / Control of Rival Hypotheses / Use of a Control Group / Random Sampling and Random Assignment

Summary 144

Study Questions 144

References and Further Readings 145

# 9. Internal and External Validity 147

Threats to Internal Validity 148

History / Maturation / Testing / Instrumentation Error / Statistical Regression / Differential Selection of Study Participants / Mortality / Reactive Effects of Study Participants / Interaction Effects / Relations Between Experimental and Control Groups

Threats to External Validity 155

Pretest-Treatment Interaction / Selection-Treatment Interaction / Specificity of Variables / Reactive Effects / Multiple-Treatment Interference / Researcher Bias

Summary 157

Study Questions 158

References and Further Readings 159

# 10. SINGLE-SYSTEM DESIGNS 161

Purpose of Single-System Designs 161

Requirements of Single-System Designs 162

Setting Measurable Objectives / Selecting Outcome

Measures / Graphically Displaying Data

Exploratory Single-System Designs 166

The B Design / The BC and BCD Designs

Descriptive Single-System Designs 172

The AB Design / The ABC Design

Explanatory Single-Systems Designs 179

The ABAB Design / The BAB Design / The BCBC Design

Advantages and Disadvantages 189

Advantages / Disadvantages

Summary 191

Study Questions 192

References and Further Readings 193

# 11. GROUP DESIGNS 195

Exploratory Designs 197

One-Group Posttest-Only Design / Multigroup Posttest-Only Design / Longitudinal Case Study Design / Longitudinal Survey Design

Descriptive Designs 204

Randomized One-Group Posttest-Only Design / Randomized Cross-Sectional and Longitudinal Survey Design / One-Group Pretest-Posttest Design / Comparison Group Posttest-Only Design / Comparison Group Pretest-Posttest Design / Interrupted Time-Series Design

Explanatory Designs 215

Classical Experimental Design / Solomon Four-Group Design / Randomized Posttest-Only Control Group Design

Summary 220

Study Questions 221

References and Further Readings

#### 12. SAMPLING 223

Probability Sampling Procedures 223

Simple Random Sampling / Systematic Random Sampling / Stratified Random Sampling / Cluster Random Sampling

Nonprobability Sampling Procedures 228

Convenience Sampling / Purposive Sampling / Quota Sampling / Snowball Sampling

Sample Size 232

Errors 233

Sampling Errors / Nonsampling Errors

236 Summary

Study Questions 237

References and Further Readings 238

#### PART IV COLLECTING DATA 239

# 13. SURVEYS **241**

Purpose of Survey Research 241

Designs 243

> Exploratory Surveys / Descriptive Surveys / Explanatory Surveys

Data Collection Methods 245

Questionnaires / Interviews

Advantages and Disadvantages 256

Summary 258

Study Ouestions 259

References and Further Readings 260

# NONSURVEYS

Structured Observation 262

Role of the Observer

Participant Observation 266 Roles of the Observers
Secondary Analysis 268
Content Analysis 270
Characteristics of Content Analyses
Choosing a Data Collection Method 272
Summary 273
Study Questions 274
References and Further Readings 275

# 15 Data Analysis 277

Levels of Measurement 278

Nominal Measurement / Ordinal Measurement / Interval Measurement / Ratio Measurement

Computer Applications 282

Descriptive Statistics 283

Frequency Distributions / Measures of Central Tendency / Measures of Variability

Inferential Statistics 293

Statistics That Determine Associations / Statistics That Determine Differences

Summary 301

Study Questions 301

References and Further Readings 302

# 16. WRITING PROPOSALS AND REPORTS 304

Writing Proposals 305

Part 1: Research Topic / Part 2: Literature Review / Part 3:

Conceptual Framework / Part 4: Questions and

Hypotheses / Part 5: Operational Definitions / Part 6:

Research Design / Part 7: Population and Sample / Part 8:

Data Collection / Part 9: Data Analysis / Part 10:

Limitations / Part 11: Administration

Writing Reports 316

Part 1: Problem / Part 2: Method / Part 3: Findings / Part

4: Discussion

Summary 326

Study Questions 326

References and Further Readings 327

Glossary 329

Index 344

# Part I

# **Foundations**

Chapter 1
Introduction 3

Chapter 2
Research Contexts 24

THE TWO CHAPTERS OF PART I introduce readers to the place of research in social work. More specifically, Chapter 1 presents the basic ways of obtaining knowledge and describes the characteristics of how social work research studies are done using the problem-solving model. It also discusses the various research roles that social workers can undertake in contemporary practice. Chapter 2 elaborates on Chapter 1 by presenting an in-depth discussion of the various factors that affect social work research studies. In overview, Chapter 1 presents how research is relevant to social work while Chapter 2 discusses the personal, ethical, political, and social considerations that shape how it is performed.