

## Research Methods for the Behavioral Sciences

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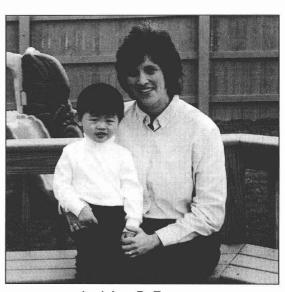
## **Author Biographies**

Frederick J Gravetter is a Professor of Psychology at the State University of New York College at Brockport. Dr. Gravetter has taught at Brockport since the early 1970s, specializing in statistics, experimental design, and cognitive psychology. He received his bachelor's degree in mathematics from M.I.T and his Ph.D. in psychology from Duke University. In addition to publishing several research articles, Dr. Gravetter has co-authored Statistics for the Behavioral Sciences and Essentials of Statistics for the Behavioral Sciences.

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Frederick J Gravetter



Lori-Ann B. Forzano

### Preface

For years we have watched students come into psychology Research Methods courses with a fundamental fear of science. Somewhere along the way, these students seem to have developed the idea that psychology is interesting and fun but science is tedious and difficult. Many students even resent having to take a Research Methods course: "After all, I want to be a psychologist, not a scientist."

As the semester progresses, however, most of these students begin to lose their fears, and many actually begin to enjoy the course. Much of this change in attitude is based on a realization that science is simply the technique that psychologists use to gather information and to answer questions. As long as the questions are interesting, then the task of answering them should also be interesting.

When people watch a magician do an amazing trick, they often ask, "How was that done?" In the same way, when you learn something interesting about human behavior, you ought to ask, "How do they know that?" The answer is that most of the existing knowledge in the behavioral sciences was gathered using scientific research methods. If you are really curious about human behavior, then you should also be curious about the process of studying it.

This textbook has been developed from years of teaching Research Methods. During that time, we have tried different examples and explanations in the classroom and watched the students' responses. Over the years, the course has evolved into a less intimidating, more interesting approach that seems to be very effective in getting students involved in research. Our students have been most helpful in this evolutionary process. Their feedback has directed our progress in the development of the research methods course and the writing of this book. In many respects they have been our teachers.

#### **OVERVIEW OF THE TEXT**

Research Methods for the Behavioral Sciences is intended for an undergraduate Research Methods course in psychology or any of the behavioral sciences. We have organized the text according to the research process, making it appropriate for use in a lecture-only class or a class with a lab component. The text discusses in detail both experimental and nonexperimental research strategies. We use an informal writing style that emphasizes discussion and explanation of topics. Pedagogical aids include preview outlines, learning checks throughout each chapter, a running glossary, chapter summaries, a list of key words for quick review at the end of each chapter, end-of-chapter exercises, and end-of-chapter InfoTrac® College Edition exercises.

#### ORGANIZATION OF THE TEXT

The book's organizational framework is the research process—from start to finish. This step-by-step approach emphasizes the decisions researchers must make at each stage of the process. The chapters are grouped into five sections. Chapters 1 through 3 focus on the earliest considerations in the research process and include tips for finding new ideas for research and developing hypotheses, pointing out the ethics that must govern all further decisions in research. Chapters 4 through 6 focus on the preliminary decisions in the research process and include information on measuring variables, selecting participants, and choosing a valid research strategy. Chapters 7 through 9 provide details of the different research strategies. Chapters 10 through 13 provide details of specific experimental designs. Chapters 14 and 15 focus on decisions in the final stages of the research process and include information on evaluating, interpreting, and communicating research results.

#### WRITING STYLE

We have used an informal, conversational style of writing that emphasizes discussion and explanation of topics, instead of a "cookbook" presentation of facts. This style has been successful in our own classes and in Gravetter's coauthored textbook, *Statistics for the Behavioral Sciences*. Students find this style readable and unintimidating; it is particularly useful for material that students perceive as difficult.

#### PEDAGOGICAL AIDS

We have paid particular attention to pedagogical aids. In each chapter, there are many opportunities for students to engage the material rather than passively being exposed to it. Learning checks, end-of-chapter exercises, and end-of-chapter InfoTrac College Edition exercises can be used by the instructor as prepackaged assignments.

Each chapter contains:

- 1. Chapter Outline: Each chapter begins with an outline of the material presented in the chapter, to help students see the organization of the material.
- 2. Chapter Overview: A brief summary of the chapter's contents at the beginning of the chapter prepares students for the material to come.
- 3. *Multiple sections*: Multiple, clearly defined sections and subsections break the material down into manageable chunks.
- 4. *Definitions:* Each key word is boldfaced upon its first use in the text. A clearly identified, concise definition is provided at the end of the paragraph that contains the new key word.
- 5. Examples: Numerous examples illustrate concepts presented in the text. Some examples are hypothetical, and some are selected from current or classic studies in psychology.
- 6. *Boxes:* Boxed material, separate from the regular text, offers additional interesting information to help demonstrate certain key points.

- 7. Figures: Where appropriate, diagrams and graphs are included to illustrate important points.
- 8. Tables: Tables are used to present information best conveyed in a list format.
- 9. Margin notes: Brief notes in the margins of the text offer reminders or cautions to students.
- 10. Learning Checks: At the end of major sections within each chapter, a set of questions helps students test how well they have learned the material.
- 11. Chapter Summaries: A general summary at the end of each chapter helps students review the main points of the chapter.
- 12. Key Words: A list of the key words used in the chapter is presented at the end of each chapter. The list is in order of the key words' appearance in the chapter so that related terms are grouped together and so that students can spot parts of the chapter they need to review.
- 13. Exercises: A list of questions and activities appears at the end of each chapter. The exercises help students test how well they have learned the material by applying what they have learned. The instructor can also use the exercises as assignments.
- 14. InfoTrac College Edition Exercises: InfoTrac College Edition Exercises appear at the end of each chapter. These exercises provide students with an additional, unique learning opportunity to apply information presented in the text.

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#### TO CONTACT US

Over the years our students have given us many helpful suggestions, and we have benefitted from their feedback. If you have any suggestions or comments about this book, you can write to us at the Department of Psychology, SUNY College at Brockport, 350 New Campus Drive, Brockport, NY 14420. We can also be reached by e-mail at:

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Lori-Ann B. Forzano Frederick 7 Gravetter

## **Brief Contents**

PREFACE ix  CHAPTER 1  Introduction, Inquiry, and	CHAPTER 10 Experimental Designs: Between-Subjects Design 240
the Scientific Method 1	CHAPTER 11
	Experimental Designs:
CHAPTER 2	Within-Subjects Design 266
Research Ideas 31	,
	CHAPTER 12
CHAPTER 3	Factorial Designs 291
Ethics in Research 58	
CHAPTER 4	CHAPTER 13
Defining and Measuring Variables 82	Single-Subject Research Designs 323
Defining and Measuring variables 82	CHAPTER 14
CHAPTER 5	Statistical Evaluation of Data 356
Selecting Research Participants 114	Statistical Evaluation of Data 336
C seems to the seems of the see	CHAPTER 15
CHAPTER 6	Writing a Research Report 398
Research Strategies and Validity 130	8
	APPENDICES
CHAPTER 7	A. Random Number Table
Descriptive and Correlational	and Instructions 425
Research Strategies 161	B. Statistics Demonstrations
CHAPTER 8	and Statistical Tables 429
Experimental Research Strategy 188	GLOSSARY 453
======================================	11000
CHAPTER 9	REFERENCES 469
Quasi-Experimental Strategy: Nonequivalent Group, Time-Series, and Developmental Designs 214	INDEX 473

## Contents

<b>AUTHOR BIOGRAPHIES</b>	vii	
PREFACE ix		

CHAPTER 1

#### INTRODUCTION, INQUIRY, AND THE SCIENTIFIC METHOD 1

CHAPTER OVERVIEW 1

1.1 INTRODUCTION TO RESEARCH METHODOLOGY 2

Why Take a Research Methods Course? 2 How Is Understanding Research Methodology Useful? 2

1.2 METHODS OF INQUIRY 6

The Method of Authority 6
The Method of Intuition 9
The Method of Tenacity 9
The Rational Method 10
The Method of Empiricism 12

1.3 THE SCIENTIFIC METHOD 14The Steps of the Scientific Method 15

1.4 THE RESEARCH PROCESS 21

Step 1: Find a Research Idea 21
Step 2: Convert Your Research Idea
Into a Specific Research Hypothesis 23
Step 3: Determine How You Will Define
and Measure Your Variables 25

Other Elements of the Scientific Method 18

Step 4: Identify the Participants or Subjects for the Study 26 Step 5: Select a Research Strategy 26

Step 6: Select a Research Design 27

Step 7: Conduct the Study 27

Step 8: Evaluate the Data 27
Step 9: Report the Results 27
Step 10: Refine or Reformulate
Your Research Idea 28

CHAPTER SUMMARY 29

KEY WORDS 29

EXERCISES 29

CHAPTER 2

#### RESEARCH IDEAS 31

CHAPTER OVERVIEW 31

2.1 GETTING STARTED 32

Pick a Topic in Which You Are Interested 32
Do Your Homework 32
Keep an Open Mind 33
Focus, Focus, Focus 33
Take One Step at a Time 33

2.2 SOURCES OF IDEAS 34

Finding a General Topic Area 34 Common Sources of Ideas 34 Common Mistakes in Choosing a Research Topic 36

2.3 FINDING AND USING BACKGROUND LITERATURE 38

Primary and Secondary Sources 38 The Purpose of a Literature Search 40

2.4 CONDUCTING A LITERATURE SEARCH 43

Starting Points 43 Using Online Databases 43 Using PsycINFO 46
The Process of Conducting a
Literature Search 49

2.5 FINDING AN IDEA FOR A NEW RESEARCH STUDY 52

Converting an Idea into a Research Hypothesis 54

CHAPTER SUMMARY 55

KEY WORDS 56

EXERCISES 56

InfoTrac COLLEGE EDITION EXERCISES 57

#### CHAPTER 3

#### ETHICS IN RESEARCH 58

CHAPTER OVERVIEW 58

3.1 INTRODUCTION 59
Ethical Concerns Throughout
the Research Process 59
The Basic Categories of
Ethical Responsibility 60

3.2 ETHICAL ISSUES AND HUMAN PARTICIPANTS IN RESEARCH 60

Historical Highlights of Treatment of Human Participants 60 American Psychological Association (APA) Guidelines 62 The Institutional Review Board (IRB) 73

3.3 ETHICAL ISSUES AND NONHUMAN SUBJECTS IN RESEARCH 75

Historical Highlights of Treatment of Nonhuman Subjects 75 American Psychological Association (APA) Guidelines 76 The Institutional Animal Care and Use Committee (IACUC) 76 3.4 ETHICAL ISSUES
AND SCIENTIFIC INTEGRITY 77
Fraud in Science 78
Plagiarism 79

CHAPTER SUMMARY 80

KEY WORDS 81

**EXERCISES** 81

InfoTrac COLLEGE EDITION EXERCISES 81

#### CHAPTER 4

## DEFINING AND MEASURING VARIABLES 82

CHAPTER OVERVIEW 82

- 4.1 AN OVERVIEW OF MEASUREMENT 83
- 4.2 CONSTRUCTS AND OPERATIONAL DEFINITIONS 84
   Theories and Constructs 84
   Operational Definitions 85
   Using Operational Definitions 86
- 4.3 VALIDITY AND RELIABILITY OF MEASUREMENT 86

  Validity of Measurement 87

  Reliability of Measurement 91

The Relationship Between Reliability and Validity 94

4.4 SCALES OF MEASUREMENT 95

The Nominal Scale 95
The Ordinal Scale 95
The Interval Scale 96
The Ratio Scale 96
Selecting a Scale of Measurement 96

4.5 MODALITIES OF MEASUREMENT 97 Self-Report Measures 97

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Physiological Measures		102
Behavioral Measures	100	03

4.6 OTHER ASPECTS OF MEASUREMENT 107

Multiple Measures 107
Sensitivity and Range Effects 107
Participant Reactivity and Experimenter Bias 108
Selecting a Measurement Procedure 110

CHAPTER SUMMARY 111

KEY WORDS 111

**EXERCISES** 111

InfoTrac COLLEGE EDITION EXERCISES 112

#### CHAPTER 5

#### SELECTING RESEARCH PARTICIPANTS 114

CHAPTER OVERVIEW 114

5.1 INTRODUCTION 115
 Populations and Samples 115
 Representative Samples 117
 Sampling Basics 118

5.2 PROBABILITY SAMPLING METHODS 119

Simple Random Sampling 119
Systematic Sampling 121
Stratified Random Sampling 121
Proportionate Stratified Random Sampling 123
Cluster Sampling 124
Combined-Strategy Sampling 125
Probability Sampling Methods Summary 125

5.3 NONPROBABILITY
SAMPLING METHODS 125
Convenience Sampling 125

Quota Sampling 127

CHAPTER SUMMARY 127

KEY WORDS 128

EXERCISES 128

InfoTrac COLLEGE EDITION EXERCISES 129

#### CHAPTER 6

#### RESEARCH STRATEGIES AND VALIDITY 130

CHAPTER OVERVIEW 130

6.1 INTRODUCTION TO RESEARCH STRATEGIES 131

Descriptive Strategy 131
Correlational Strategy 131
Experimental Strategy 132
Quasi-Experimental Strategy 133
Summary 135

6.2 VALIDITY 136

Internal Validity 137

External Validity 138

6.3 THREATS TO VALIDITY 139

Threats to Internal Validity 140

Threats to External Validity 144

6.4 MORE ABOUT INTERNAL AND EXTERNAL VALIDITY 152 Balancing Internal and External Validity 153 Ethical Constraints 154 Exaggerated Variables 154

6.5 VALIDITY AND INDIVIDUAL RESEARCH STRATEGIES 155

Validity and the Descriptive Strategy 155
Validity and the Correlational Strategy 155
Validity and the Experimental Strategy 155
Validity and the QuasiExperimental Strategy 156

6.6 RESEARCH STRATEGIES,
RESEARCH DESIGNS, AND
RESEARCH PROCEDURES 156
Research Strategies 156
Research Designs 157
Research Procedures 157

CHAPTER SUMMARY 158

KEY WORDS 159

EXERCISES 159

InfoTrac COLLEGE EDITION EXERCISES 160

#### CHAPTER 7

#### DESCRIPTIVE AND CORRELATIONAL RESEARCH STRATEGIES 161

CHAPTER OVERVIEW 161

- 7.1 INTRODUCTION 162
- DESIGN 163

  Types of Observation and Examples 163

  Strengths and Weaknesses

  of Observational Research Designs 166

7.2 OBSERVATIONAL RESEARCH

7.3 SURVEY RESEARCH DESIGN 168

Constructing a Survey 169
Selecting Relevant
and Representative Individuals 169
Administering a Survey 170
Strengths and Weaknesses
of Survey Research 174

7.4 CASE STUDY DESIGN 175
 Applications of the Case Study Design 176
 Strengths and Weaknesses
 of the Case Study Design 177

#### 7.5 CORRELATIONAL RESEARCH STRATEGY 179

Applications of the Correlational Strategy 180 Strengths and Weaknesses of the Correlational Research Strategy 183

**CHAPTER SUMMARY** 185

KEY WORDS 186

EXERCISES 186

InfoTrac COLLEGE EDITION EXERCISES 187

#### CHAPTER 8

#### EXPERIMENTAL RESEARCH STRATEGY 188

CHAPTER OVERVIEW 188

8.1 CAUSE-AND-EFFECT RELATIONSHIPS 189

> Causation and the Third-Variable Problem 189 Causation and the Directionality Problem 190 Controlling Nature 190

- 8.2 ELEMENTS OF AN EXPERIMENT 191

  Manipulation and Measurement 192

  Control and Extraneous Variables 194
- 8.3 DEALING WITH EXTRANEOUS
  VARIABLES 196
  Control by Holding Constant or Matching 198

Control by Holding Constant of Matching 198
Control by Randomization 199
Comparing Methods of Control 201
Advantages and Disadvantages of Control
Methods 202

8.4 CONTROL GROUPS 203

No-Treatment Control Groups 203 Placebo Control Groups 204

8.5 MANIPULATION CHECKS 205

8.6 INCREASING EXTERNAL VALIDITY: SIMULATION AND FIELD STUDIES 206

Simulation 207
Field Studies 209
Advantages and Disadvantages
of Simulation and Field Studies 210

CHAPTER SUMMARY 210

KEY WORDS 211

**EXERCISES 211** 

InfoTrac COLLEGE EDITION EXERCISES 213

CHAPTER 9

QUASI-EXPERIMENTAL STRATEGY: NONEQUIVALENT GROUP, TIME-SERIES, AND DEVELOPMENTAL DESIGNS 214

CHAPTER OVERVIEW 214

- 9.1 INTRODUCTION 215
- 9.2 QUASI-EXPERIMENTAL STRATEGY 215
- 9.3 NONEQUIVALENT GROUP DESIGNS 217

Threats to Internal Validity for
Nonequivalent Group Designs 218
Differential Research Design 219
Posttest-Only Nonequivalent
Control Group Design 220
Pretest-Posttest Nonequivalent
Control Group Design 223

9.4 TIME-SERIES DESIGNS 225

Threats to Internal Validity for
Time-Series Designs 226
One-Group Pretest-Posttest Design 226

Time-Series and Interrupted Time-Series
Designs 227
Equivalent Time-Samples Design 228

9.5 DEVELOPMENTAL RESEARCH STRATEGY 230

> Cross-Sectional Research Design 231 Longitudinal Research Design 233

9.6 TERMINOLOGY IN

QUASI-EXPERIMENTAL AND

DEVELOPMENTAL DESIGNS 236

CHAPTER SUMMARY 237

KEY WORDS 237

EXERCISES 238

InfoTrac COLLEGE EDITION EXERCISES 238

CHAPTER 10

EXPERIMENTAL DESIGNS: BETWEEN-SUBJECTS DESIGN 240

CHAPTER OVERVIEW 240

10.1 INTRODUCTION 241

Review of Experimental Research Strategy 241
Characteristics of Between-Subjects Designs 241
Advantages and Disadvantages of
Between-Subjects Designs 243

- 10.2 INDIVIDUAL DIFFERENCES
  AS CONFOUNDING VARIABLES 245
  Equivalent Groups 247
- 10.3 LIMITING CONFOUNDING BY INDIVIDUAL DIFFERENCES 247

Random Assignment (Randomization) 248
Matching Groups (Matched Assignment) 249
Holding Variables Constant or Restricting Range
of Variability 250

Summary and Recommendations 250

10.4 INDIVIDUAL DIFFERENCES AND VARIABILITY 251

Differences Between Treatments and Variability
Within Treatments 252
Minimizing Variability Within Treatments 253
Summary and Recommendations 255

10.5 OTHER THREATS TO INTERNAL VALIDITY OF BETWEEN-SUBJECTS DESIGNS 256

Assignment Bias 256
Differential Attrition 256
Diffusion or Imitation of Treatment 257
Compensatory Equalization 257
Compensatory Rivalry 258
Resentful Demoralization 258

10.6 APPLICATIONS AND STATISTICAL ANALYSES OF BETWEEN-SUBJECTS DESIGNS 259

Two-Group Mean Difference 259
Comparing Means
for More Than Two Groups 260
Comparing Proportions
for Two or More Groups 262

CHAPTER SUMMARY 263

KEY WORDS 263

EXERCISES 264

InfoTrac COLLEGE EDITION EXERCISES 264

CHAPTER 11

EXPERIMENTAL DESIGNS: WITHIN-SUBJECTS DESIGN 266

CHAPTER OVERVIEW 266

11.1 INTRODUCTION 267
Characteristics of Within-Subjects Design 267

Advantages of Within-Subjects Designs 268
Disadvantages of Within-Subjects Designs 272

11.2 TIME-RELATED THREATS
TO THE INTERNAL VALIDITY
OF WITHIN-SUBJECTS DESIGNS 273

History 273 Maturation 274 Instrumentation 275 Statistical Regression 275

11.3 ORDER EFFECTS: CARRYOVER EFFECTSAND PROGRESSIVE ERROR 276Order Effects as a Confounding Variable 278

11.4 DEALING WITH TIME-RELATED
THREATS AND ORDER EFFECTS 279

Controlling Time 279
When a Within-Subjects Design
Is Not a Good Idea 280
Counterbalancing 280
Limitations of Counterbalancing 282

11.5 APPLICATIONS AND STATISTICAL ANALYSES OF WITHIN-SUBJECTS DESIGNS 285

Two-Treatment Designs 286
Multiple-Treatment Designs 286

11.6 MATCHED-SUBJECTS DESIGNS 287

CHAPTER SUMMARY 288

KEY WORDS 289

EXERCISES 289

InfoTrac COLLEGE EDITION EXERCISES 290

CHAPTER 12

FACTORIAL DESIGNS 291

CHAPTER OVERVIEW 291

12.1	.1 INTRODUCTION	
	TO FACTORIAL DESIGNS	292

## 12.2 MAIN EFFECTS AND INTERACTIONS 294

#### 12.3 MORE ABOUT INTERACTIONS 297

Alternative Definitions of Interaction 299
Interpreting Main Effects and Interactions 301
Independence of Main Effects
and Interactions 303

#### 12.4 TYPES OF FACTORIAL DESIGNS 303

Between-Subjects
and Within-Subjects Designs 305

Experimental
and Nonexperimental Designs 307

Pretest-Posttest Control Group Designs 309

Higher-Order Factorial Designs 310

## 12.5 APPLICATIONS OF FACTORIAL DESIGNS 311

Adding a Second Factor
to a Previous Study 311
Reducing Variability
in Between-Subjects Designs 313
Evaluating Order Effects
in Within-Subjects Designs 315

CHAPTER SUMMARY 319

KEY WORDS 321

EXERCISES 321

InfoTrac COLLEGE EDITION EXERCISES 322

#### CHAPTER 13

#### SINGLE-SUBJECT RESEARCH DESIGNS 323

CHAPTER OVERVIEW 323

13.1 INTRODUCTION 324

Evaluating the Results from a Single-Subject Study 324

# 13.2 PHASES AND PHASE CHANGES 326 Level, Trend, and Stability 327 Changing Phases 330 Visual Inspection Techniques 332

## 13.3 THE ABAB REVERSAL DESIGN 333Limitations of the ABAB Design 337

## 13.4 MORE COMPLEX PHASE-CHANGE DESIGNS 339 Dismantling or Component-Analysis Design 341

# 13.5 MULTIPLE-BASELINE DESIGNS 342 Rationale for the Multiple-Baseline Design 344 Strengths and Weaknesses of the Multiple-Baseline Design 346

## 13.6 THE CHANGING-CRITERION DESIGN 346

# 13.7 THE ALTERNATING-TREATMENTS DESIGN 348 Application of the Alternating-Treatments Design 349

## 13.8 GENERAL STRENGTHS AND WEAKNESSES OF SINGLE-SUBJECT DESIGNS 351

Advantages of
Single-Subject Designs 351
Disadvantages of
Single-Subject Designs 352

CHAPTER SUMMARY 353

KEY WORDS 354

EXERCISES 354

InfoTrac COLLEGE EDITION EXERCISES 355

#### CHAPTER 14

## STATISTICAL EVALUATION OF DATA 356

CHAPTER OVERVIEW 356

14.1 THE ROLE OF STATISTICS IN THE RESEARCH PROCESS 357

Planning Ahead 357 Statistics Terminology 358

14.2 DESCRIPTIVE STATISTICS 359

Frequency Distributions 359
Measures of Central Tendency 362
Measures of Variability 364
Describing Interval and Ratio Data
(Numerical Scores) 366
Describing Nominal and Ordinal Data 368
Using Graphs to Summarize Data 369
Correlations 370

14.3 INFERENTIAL STATISTICS 375

Hypothesis Tests 376
Reporting Results From a Hypothesis Test 380
Errors in Hypothesis Testing 381
Measures of Effect Size 382

14.4 EXAMPLES OF HYPOTHESIS TESTS 384

Tests for Mean Differences 384
Tests for Correlations 387
Tests for Proportions 388

14.5 SPECIAL STATISTICS FOR RESEARCH 389

The Spearman-Brown Formula 389
The Kuder-Richardson Formula 20 390
Cronbach's Alpha 391
Cohen's Kappa 391

CHAPTER SUMMARY 394

KEY WORDS 395

EXERCISES 395

InfoTrac COLLEGE EDITION EXERCISES 396

CHAPTER 15

WRITING A
RESEARCH REPORT 398

CHAPTER OVERVIEW 398

15.1 THE GOAL
OF A RESEARCH REPORT 399

15.2 GENERAL APA GUIDELINES FOR WRITING STYLE AND FORMAT 400

Some Elements of Writing Style 400
Guidelines for Typing
or Word-Processing 402
Manuscript Pages 403
Page Numbers and Page Headers 403

15.3 THE ELEMENTS OF AN APA-STYLE RESEARCH REPORT 403

Title Page 404
Abstract 405
Introduction 406
Method 409
Results 410
Discussion 412
References 413
Appendix 416
Author Note 417
Tables, Figure Captions, and Figures 417

15.4 SUBMITTING A MANUSCRIPT FOR PUBLICATION 417

15.5 WRITING A RESEARCH PROPOSAL 419Why Write a Research Proposal? 420How to Write a Research Proposal 421

CHAPTER SUMMARY 421

KFY WORDS 422

EXERCISES 422

InfoTrac COLLEGE EDITION EXERCISES 422

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