Educational Research

Planning, Conducting, and Evaluating Quantitative and Qualitative Research

FIFTH EDITION

John W. Creswell
University of Nebraska–Lincoln

PEARSON

Boston Columbus Indianapolis New York San Francisco Upper Saddle River Amsterdam Cape Town Dubai London Madrid Milan Munich Paris Montréal Toronto Delhi Mexico City São Paulo Sydney Hong Kong Seoul Singapore Taipei Tokyo

Brief Contents

PART 1 An Introduction to Educational Research 1 CHAPTER 1 The Process of Conducting Research Using Quantitative and Qualitative Approaches 2 PART 2 The Steps in the Process of Research 57 CHAPTER 2 Identifying a Research Problem 58 CHAPTER 3 Reviewing the Literature 79 CHAPTER 4 Specifying a Purpose and Research Questions or Hypotheses 109 CHAPTER 5 Collecting Quantitative Data 139 CHAPTER 6 Analyzing and Interpreting Quantitative Data 172 CHAPTER 7 Collecting Qualitative Data 203 CHAPTER 8 Analyzing and Interpreting Qualitative Data 235 CHAPTER 9 Reporting and Evaluating Research 265 PART 3 **Research Designs** 293 CHAPTER 10 Experimental Designs 294 CHAPTER 11 Correlational Designs 338 CHAPTER 12 Survey Designs 378 CHAPTER 13 Grounded Theory Designs 425 CHAPTER 14 Ethnographic Designs 465 CHAPTER 15 Narrative Research Designs 503

CHAPTER 16 Mixed Methods Designs 536
CHAPTER 17 Action Research Designs 578

Contents

PART	1	An	Introduction		to	Educational
		Res	earch	1		

Chapter 1 The Process of Conducting Research Using Quantitative and Qualitative Approaches 2

A Definition of Research and Its Importance 3

Research Adds to Our Knowledge 4 • Research
Improves Practice 4 • Research Informs Policy
Debates 6 • Several Problems with Research
Today 6

The Six Steps in the Process of Research 7

Identifying a Research Problem 7 • Reviewing the Literature 8 • Specifying a Purpose for Research 9 • Collecting Data 9 • Analyzing and Interpreting the Data 10 • Reporting and Evaluating Research 10

The Characteristics of Quantitative and Qualitative Research in Each of the Six Steps 11

Quantitative Research Characteristics 13

• Qualitative Research Characteristics 16

 Similarities and Differences between Quantitative and Qualitative Research 19 • Research Designs Associated with Quantitative and Qualitative Research 20

Important Ethical Issues in Conducting Research 22
Institutional Review Boards 22 • Professional
Associations 22 • Ethical Practices throughout
the Research Process 23 • Some Ethical Issues in
Data Collection 23 • Some Ethical Issues in Data
Reporting 24

Skills Needed to Design and Conduct Research 24

Solving Puzzles 24 • Lengthening Your

Attention Span 25 • Learning to Use Library

Resources 25 • Writing, Editing, and More Writing 25

Key Ideas in the Chapter 25

The Definition and Importance of Educational Research 25 • The Six Steps in the Process of Research 25 • The Characteristics of Quantitative and Qualitative Research 26 • The Types of Research Designs Associated with Quantitative and Qualitative Research 26 • The Important Ethical Issues 26 • The Skills Needed to Design and Conduct Research 26

Useful Information for Producers of Research 27

Useful Information for Consumers of Research 27

Understanding Concepts and Evaluating Research Studies 27

Reading Research: A Quantitative Study 28 Reading Research: A Qualitative Study 41

PART 2 The Steps in the Process of Research

Chapter 2 Identifying a Research Problem 58

What Is a Research Problem, and Why Is It Important? 59

How Does the Research Problem Differ from Other Parts of Research? 59

Can and Should Problems Be Researched? 61

Can You Gain Access to People and Sites? 61 •

Can You Find Time, Locate Resources, and Use Your

Skills? 61 • Should the Problem Be Researched? 62

How Does the Research Problem Differ in Quantitative and Qualitative Research? 63

How Do You Write a "Statement of the Problem" Section? 64

The Topic 64 • The Research Problem 66
• Justification of the Importance of the

Problem 66 • Deficiencies in What We

Know 69 • The Audience 70

What Are Some Strategies for Writing the "Statement of the Problem" Section? 70

A Template 70 • Other Writing Strategies 71 • Think-Aloud about Writing a "Statement of the Problem" 72

Examples of "Statement of the Problem" Sections 72 Reexamining the Parent Involvement and the Mothers' Trust in School Principals Studies 75 Key Ideas in the Chapter 76

Define a Research Problem and Explain Its
Importance 76 • Distinguish between a Research
Problem and Other Parts of Research 76 • Criteria
for Deciding Whether a Problem Can and
Should Be Researched 76 • The Difference
between Quantitative and Qualitative Research
Problems 76 • The Five Elements of a "Statement
of the Problem" Section 76 • Strategies Useful in
Writing the "Statement of the Problem" Section 76

Useful Information for Producers of Research 76
Useful Information for Consumers of Research 77
Understanding Concepts and Evaluating Research Studies 77
Conducting Your Research 78
Practice Using What You Have Learned 78

Chapter 3 Reviewing the Literature 79

What Is a Literature Review, and Why Is It Important? 80

How Does the Literature Review Differ for Quantitative
and Qualitative Studies? 80

What Are the Five Steps in Conducting a Literature Review? 81

Identify Key Terms 81 • Locate Literature 82 • Critically Evaluate and Select the Literature 91

• Organize the Literature 92 • Write a Literature Review 98

Reexamining the Parent Involvement and the Mothers' Trust in Principals Studies 104

Literature Review Analysis in a Quantitative Study 104 • Literature Review Analysis in a Qualitative Study 105

Key Ideas in the Chapter 106

What Is a Review of the Literature, and Why Is It Important? 106 • The Five Steps in Conducting a Literature Review 106

Useful Information for Producers of Research 107
Useful Information for Consumers of Research 107
Understanding Concepts and Evaluating Research Studies 108
Conducting Your Research 108
Practice Using What You Have Learned 108

Chapter 4 Specifying a Purpose and Research Questions or Hypotheses 109

What Are Purpose Statements, Research Questions,
Hypotheses, and Objectives? 110

The Purpose Statement 110 • Research Questions 111
• Hypotheses 111 • Research Objectives 111

Why Are These Statements and Questions Important? 112

How Do You Design Quantitative Purpose Statements, Research Questions, and Hypotheses? 112

Specify Variables 112 • The Family of

Variables 114 • Think-Aloud about Identifying

Variables? 119 • Theories and Testing of

Variables 120 • Writing Quantitative Purpose

Statements 122 • Writing Quantitative Research

Questions 123 • Writing Quantitative Hypotheses 125

How Do You Design Qualitative Purpose Statements and Research Questions? 127

Differentiating between Quantitative and Qualitative Purpose Statements and Research Questions 127

The Central Phenomenon in Qualitative Research 128

Emerging Processes in Qualitative Research 129

• Writing Qualitative Purpose Statements 130

• Writing Qualitative Research Questions 131

Reexamining the Parent Involvement and Mothers' Trust in Principals Studies 135

Key Ideas in the Chapter 136

Distinguish among Purpose Statements, Research
Questions, Hypotheses, and Objectives 136 • Know
Why These Statements and Questions Are
Important 136 • Write Quantitative
Purpose Statements, Research Questions, and
Hypotheses 136 • Write Qualitative Purpose
Statements and Research Questions 136

Useful Information for Producers of Research 136
Useful Information for Consumers of Research 137
Understanding Concepts and Evaluating Research Studies 137
Conducting Your Research 138
Practice Using What You Have Learned 138

Chapter 5 Collecting Quantitative Data 139

Five Steps in the Process of Data Collection 139
What Participants Will You Study? 140
Identify Your Unit of Analysis 140 • Specify the
Population and Sample 140

What Permissions Will You Need? 146

Obtain Different Types of Permissions 146 • Obtain

Informed Consent 146

What Information Will You Collect? 148

Specify Variables from Research Questions and
Hypotheses 149 • Operationally Define Each
Variable 149 • Choose Types of Data and
Measures 150

What Instrument Will You Use to Collect Data? 156

Locate or Develop an Instrument 156 • Search
for an Instrument 157 • Criteria for Choosing
a Good Instrument 157 • Interval/Ratio
Scales 165 • Think-Aloud about Finding and
Selecting an Instrument 166

xvii

How Will You Administer the Data Collection? 167

Standardization 167 • Ethical Issues 168

Reexamining the Quantitative Parent Involvement Study 168

Key Ideas in the Chapter 169

State the Five Steps in the Process of Quantitative
Data Collection 169 • Identify How to Select
Participants for a Study 169 • Identify the
Permissions Needed for a Study 169 • List Different
Options for Collecting Information 169 • Locate,
Select, and Assess an Instrument(s) for Use in
Data Collection 169 • Describe Procedures for
Administering Quantitative Data Collection 169

Useful Information for Producers of Research 170
Useful Information for Consumers of Research 170
Understanding Concepts and Evaluating
Research Studies 171

Conducting Your Research 171
Practice Using What You Have Learned 171

Chapter 6 Analyzing and Interpreting Quantitative Data 172

What Are the Steps in the Process of Quantitative Data Analysis? 173

How Do You Prepare the Data for Analysis? 173

Score the Data 173 • Determine the Types
of Scores to Analyze 175 • Select a Statistical

Program 176 • Input Data 177 • Clean and
Account for Missing Data 179

How Do You Analyze the Data? 180

Conduct Descriptive Analysis 181 • Conduct
Inferential Analysis 185

How Do You Report the Results? 194

Tables 194 • Figures 195 • Present Results 195

How Do You Interpret the Results? 196

Summarize the Major Results 196 • Explain

Why the Results Occurred 196 • Advance

Limitations 197 • Suggest Future Research 198

Reexamining Data Analysis and Interpretation in the Parent Involvement Study 198

Key Ideas in the Chapter 199

Identify the Steps in the Process of Analyzing and Interpreting Quantitative Data 199 • Preparing Your Data for Analysis 199 • Analyzing the Data 199 • Reporting the Results 200 • Interpreting the Results 200

Useful Information for Producers of Research 200
Useful Information for Consumers of Research 201
Understanding Concepts and Evaluating Research Studies 201
Conducting Your Research 202
Practice Using What You Have Learned 202

Chapter 7 Collecting Qualitative Data 203

What Are the Five Process Steps in Qualitative Data Collection? 204

What Are the Different Sampling Approaches for Selecting Participants and Sites? 204 Purposeful Sampling 205 • Sample Size or Number of Research Sites 208

What Types of Permissions Will Be Required To Gain Access to Participants and Sites? 209 Seek Institutional Review Board Approval 209 • Gatekeepers 210

What Types of Qualitative Data Will You Collect? 211

Observations 211 • Interviews 216 •

Documents 221 • Audiovisual Materials 223

What Procedures Will Be Used to Record Data? 224

Using Protocols 224 • Think-Aloud about

Observing 226

What Field and Ethical Issues Need to Be Anticipated? 227

Field Issues 227 • Ethical Issues 229

Revisiting the Mothers' Trust in Principals Qualitative Study 231

Key Ideas in the Chapter 232

Five Process Steps in Collecting Data 232 •
Sampling Approaches to Selecting Participants and
Sites 232 • Permissions Required to Gain Access 232

• Various Types of Qualitative Data to Collect 232

• Procedures for Recording Data 232 • Field Issues and Ethical Considerations in Data Collection 232

Useful Information for Producers of Research 233
Useful Information for Consumers of Research 233
Understanding Concepts and Evaluating Research Studies 233
Conducting Your Research 234
Practice Using What You Have Learned 234

Chapter 8 Analyzing and Interpreting Qualitative Data 235

What Are the Six Steps in Analyzing and Interpreting Qualitative Data? 236

How Do You Prepare and Organize the Data for Analysis? 237

Organize Data 237 • Transcribe Data 238

• Analyze by Hand or Computer 238 • Use of

Qualitative Computer Programs 240

How Do You Explore and Code the Data? 242

Explore the General Sense of the Data 242 • Code
the Data 242 • Think-Aloud about Coding a

Transcript 244

How Do You Use Codes to Build Description and
Themes? 246

Description 246 • Themes 247 • Layering and
Interrelating Themes 250

How Do You Represent and Report Findings? 252

Representing Findings 252 • Reporting Findings 253

How Do You Interpret Findings? 256

Summarize Findings 257 • Convey Personal

Reflections 257 • Make Comparisons to the

Literature 257 • Offer Limitations and Suggestions

for Future Research 258

How Do You Validate the Accuracy of Your Findings? 258 Reexamining Qualitative Data Analysis in the Mothers' Trust in Principals Case Study 260

Key Ideas in the Chapter 260

Six Steps in the Process of Analyzing and Interpreting
Qualitative Data 260 ° Prepare and Organize
the Data for Analysis 261 ° Explore and Code
the Data 261 ° Coding to Build Description and
Themes 261 ° Represent and Report Qualitative
Findings 261 ° Interpret the Findings 261 ° Validate
the Accuracy of the Findings 261

Useful Information for Producers of Research 262
Useful Information for Consumers of Research 262
Understanding Concepts and Evaluating Research Studies 263
Conducting Your Research 263
Practice Using What You Have Learned 263

Chapter 9 Reporting and Evaluating Research 265

What Is a Research Report, and What Are Its Types? 266
What Audience Will Receive the Report? 266 • What
Are the Types of Research Reports? 267

How Should You Structure Your Report? 272

Look at the Physical Structure of Research Reports 272

- Design an Appropriate Quantitative Structure 273
- Design an Appropriate Qualitative Structure 273
- Think-Aloud about the Structure of a Study 276

How Do You Write in a Sensitive, Ethical, and Scholarly Way? 277

Use Language That Reduces Bias 277 • Encode Scholarly Terms into Your Research 278 • Use Ethical Reporting and Writing of Research Results 278 • Use an Appropriate Point of View 280 • Balance Your Research and Content 281 • Interconnect Sections for Consistency 281 • Advance a Concise Title 282

How Do You Evaluate the Quality of Your Research? 282

Employ Appropriate Standards 283 • Quantitative

Standards 283 • Qualitative Standards 283

• Evaluate with a Process Approach 285

Reexamining the Parent Involvement and Mothers' Trust in Principals Studies 288

Key Ideas in the Chapter 288

The Purpose of a Research Report and Its Types 288 • How to Structure Your Research Report 289 • Sensitive, Ethical, and Scholarly Writing Practices 289 • Criteria for Evaluating a Research Report 289

Useful Information for Producers of Research 289
Useful Information for Consumers of Research 290
Understanding Concepts and Evaluating Research
Studies 290

Conducting Your Research 291
Practice Using What You Have Learned 291

PART 3 Research Designs 293

Chapter 10 Experimental Designs 294

What Is an Experiment, When Should You Use It, and How Did It Develop? 295

When Do You Use an Experiment? 295 • Causal Comparative Research versus Experiments 295 • When Did Experiments Develop? 295

What Are Key Characteristics of Experiments? 296

Random Assignment 297 • Control over Extraneous

Variables 297 • Manipulating Treatment

Conditions 301 • Outcome Measures 302 • Group

Comparisons 302 • Threats to Validity 304

What Are the Types of Experimental Designs? 307

Between-Group Designs 308 • Within-Group or Individual Designs 314

What Are Potential Ethical Issues in Experimental Research? 321

What Are the Steps in Conducting Experimental Research? 323

Step 1. Decide if an Experiment Addresses Your
Research Problem 323 • Step 2. Form Hypotheses to
Test Cause-and-Effect Relationships 324 • Step 3.
Select an Experimental Unit and Identify Study
Participants 324 • Step 4. Select an Experimental
Treatment and Introduce It 325 • Step 5. Choose a
Type of Experimental Design 326 • Step 6. Conduct
the Experiment 326 • Step 7. Organize and Analyze
the Data 326 • Step 8. Develop an Experimental
Research Report 326

How Do You Evaluate Experimental Research? 327 Key Ideas in the Chapter 327

A Definition of Experimental Research, When to Use It, and How It Developed 327 ° Key Characteristics of Experimental Research 328 ° Types of Experimental Designs 328 ° Ethical Issues in Experimental Research 328 ° Steps in Conducting an Experiment 328 ° Evaluating an Experiment 328

Useful Information for Producers of Research 329
Useful Information for Consumers of Research 329

xix

Additional Resources You Might Examine 330

Examples of Studies That Use an Experimental Design 331

Reading Research: An Experimental Study 331

Chapter 11 Correlational Designs 338

What Is Correlational Research, When Do You Use It, and How Did It Develop? 339

When Do You Use Correlational Research? 339
• How Did Correlational Research Develop? 339

What Are the Types of Correlational Designs? 340

The Explanatory Design 341 • The Prediction

Design 342

What Are the Key Characteristics of Correlational Designs? 343

Displays of Scores 343 • Associations between Scores 346 • Multiple Variable Analysis 349 • Using Advanced Correlational Statistical Procedures 355

Potential Ethical Issues in Conducting Correlational Research 356

What Are the Steps in Conducting a Correlational Study? 358

Step 1. Determine if a Correlational Study Best Addresses
the Research Problem 358 • Step 2. Identify Individuals
to Study 358 • Step 3. Identify Two or More Measures
for Each Individual in the Study 358 • Step 4. Collect
Data and Monitor Potential Threats 359 • Step 5.
Analyze the Data and Represent the Results 359
• Step 6. Interpret the Results 360

How Do You Evaluate a Correlational Study? 361 Key Ideas in the Chapter 362

The Definition, Use, and Development of Correlational Research 362 • Types of Correlational Designs 362 • Key Characteristics of Correlational Designs 362 • Ethical Issues in Conducting Correlational Research 362 • Steps in Conducting a Correlational Study 363 • Criteria for Evaluating a Correlational Study 363

Useful Information for Producers of Research 363
Useful Information for Consumers of Research 363
Additional Resources You Might Examine 363
Examples of Studies That Use a Correlational Design 365
Reading Research: A Correlational Study 365

Chapter 12 Survey Designs 378

What Is Survey Research, When Do You Use It, and How Did It Develop? 379

When Do You Use Survey Research? 379 • How Did Survey Research Develop? 379 What Are the Types of Survey Designs? 380

Cross-Sectional Survey Designs 380 • Longitudinal Survey Designs 382

What Are the Key Characteristics of Survey Research? 383

Sampling from a Population 384 • Questionnaires
and Interviews 385 • Instrument
Design 388 • Response Rate 393

How Do You Construct and Analyze a Mailed Questionnaire? 395

The Cover Letter 395 • Overall Questionnaire Construction 401 • Data Analysis of a Research Questionnaire 401

How Do You Design and Conduct an Interview Survey? 401

Stance of the Interviewer 402 • Training of Interviewers 402 • Steps in Interviewing 403 • A Telephone Interview Guide 403

What Are Potential Ethical Issues in Survey Research? 405 What Are the Steps in Conducting Survey Research? 406

Step 1. Decide if a Survey Is the Best Design to Use 406 ° Step 2. Identify the Research Questions or Hypotheses 406 ° Step 3. Identify the Population, the Sampling Frame, and the Sample 406 ° Step 4. Determine the Survey Design and Data Collection Procedures 406 ° Step 5. Develop or Locate an Instrument 407 ° Step 6. Administer the Instrument 407 ° Step 7. Analyze the Data to Address the Research Questions or Hypotheses 407 ° Step 8. Write the Report 407

How Do You Evaluate Survey Research? 407 Key Ideas in the Chapter 409

Defining Survey Research, When to Use It, and How It
Developed 409 • Types of Survey Designs 409 • Key
Characteristics of Survey Research 409 • Constructing
and Using a Mailed Questionnaire 409 • Designing
and Conducting an Interview Survey 409 • Potential
Ethical Issues in Survey Research 409 • Steps in
Conducting Survey Research 410 • Criteria for
Evaluating Survey Research 410

Useful Information for Producers of Research
Useful Information for Consumers of Research
Additional Resources You Might Examine
411
Examples of Studies That Use a Survey Design
Reading Research: A Survey Study
412

Chapter 13 Grounded Theory Designs 425

What Is Grounded Theory Research, When Should You
Use It, and How Did It Develop? 426

When Do You Use Grounded Theory? 426 • How Did
Grounded Theory Develop? 426

Types of Grounded Theory Designs 427

The Systematic Design 427 • The Emerging
Design 431 • The Constructivist Design 432
• Choosing Among the Designs 433

The Key Characteristics of Grounded Theory Research 434

A Process Approach 434 • Theoretical

Sampling 435 • Constant Comparative Data

Analysis 437 • A Core Category 438 • Theory

Generation 439 • Memos 441

Potential Ethical Issues in Grounded Theory Research 442 What Are the Steps in Conducting Grounded Theory Research? 443

Step 1. Decide if a Grounded Theory Design Best Addresses the Research Problem 443 ° Step 2. Identify a Process to Study 443 ° Step 3. Seek Approval and Access 444 ° Step 4. Conduct Theoretical Sampling 444 ° Step 5. Code the Data 444 ° Step 6. Use Selective Coding and Develop the Theory 445 ° Step 7. Validate Your Theory 445 ° Step 8. Write a Grounded Theory Research Report 445

How Do You Evaluate Grounded Theory Research? 445 Key Ideas in the Chapter 446

What Grounded Theory Is, When to Use It, and How It
Developed 446 • Three Types of Grounded Theory
Designs 447 • Key Characteristics of Grounded
Theory Research 447 • Potential Ethical Issues in
Grounded Theory Research 447 • Steps in Conducting
a Grounded Theory Study 447 • Evaluating the
Quality of a Grounded Theory Study 447

Useful Information for Producers of Research 448
Useful Information for Consumers of Research 448
Additional Resources You Might Examine 448
Examples of Studies That Use a Grounded Theory Design 450
Reading Research: A Grounded Theory Study 450

Chapter 14 Ethnographic Designs 465

What Is Ethnographic Research, When Should You Use It, and How Did It Develop? 466

When Do You Conduct an Ethnography? 466 • How Did Ethnographic Research Develop? 466

What Are the Types of Ethnographic Designs? 468

Realist Ethnographies 468 • Case Studies 469

• Critical Ethnographies 470

What Are the Key Characteristics of Ethnographic Research? 472

Cultural Themes 472 • A Culture-Sharing
Group 473 • Shared Patterns of Behavior, Belief,
and Language 474 • Fieldwork 474 • Description,
Themes, and Interpretation 476 • Context or
Setting 477 • Researcher Reflexivity 478

Ethical Issues in Conducting Ethnographic Research 478
What Are the Steps in Conducting an Ethnography? 479
Step 1. Identify Intent and the Type of
Design and Relate Intent to Your Research
Problem 480 • Step 2. Discuss Approval and Access
Considerations 482 • Step 3. Use Appropriate Data
Collection Procedures 482 • Step 4. Analyze and
Interpret Data within a Design 482 • Step 5. Write
the Report Consistent with Your Design 483

How Do You Evaluate an Ethnography? 483 Key Ideas in the Chapter 484

Defining Ethnographic Research, Its Use, and Its Development 484 • Three Types of Ethnographic Designs 485 • Potential Ethical Issues in Ethnographic Research 485 • Steps in Conducting an Ethnography 485 • Criteria for Evaluating an Ethnography Study 485

Useful Information for Producers of Research 486
Useful Information for Consumers of Research 486
Additional Resources You Might Examine 487
Examples of Studies That Use an Ethnographic Design 488
Reading Research: An Ethnographic Study 488

Chapter 15 Narrative Research Designs 503

What Is Narrative Research, When Do You Use It, and How Did It Develop? 504 When Do You Use Narrative Research? 504 • How Did Narrative Research Develop? 504

What Are the Types of Narrative Designs? 505

Who Writes or Records the Story? 506 • How Much
of a Life Is Recorded and Presented? 506 • Who
Provides the Story? 506 • Is a Theoretical Lens Being
Used? 507 • Can Narrative Forms Be Combined? 507

What Are the Key Characteristics of Narrative Designs? 507

Individual Experiences 509 • Chronology of
the Experiences 510 • Collecting Individual
Stories 510 • Restorying 511 • Coding for
Themes 513 • Context or Setting 514
• Collaborating with Participants 514

What Are Some Potential Ethical Issues in Gathering Stories? 514

What Are the Steps in Conducting Narrative Research? 515

Step 1. Identify a Phenomenon to Explore That

Addresses an Educational Problem 516 • Step 2.

Purposefully Select an Individual from Whom You Can

Learn about the Phenomenon 517 • Step 3. Collect

the Story from That Individual 517 • Step 4.

Restory or Retell the Individual's Story 517 • Step 5.

Collaborate with the Participant—Storyteller 517

• Step 6. Write a Story about the Participant's

Experiences 518 • Step 7. Validate the Accuracy

of the Report 518

How Do You Evaluate Narrative Research? 518 Key Ideas in the Chapter 519

What Is Narrative Research, When Is It Used, and How Did It Develop? 519 • The Types of Narrative Designs 519 • The Key Characteristics of Narrative Designs 520 • Potential Ethical Issues in Gathering Stories 520 • Steps in Conducting a Narrative Study 520 • Evaluating a Narrative Study 520 Useful Information for Producers of Research 520 Useful Information for Consumers of Research 521 Additional Resources You Might Examine 521 Examples of Studies That Use a Narrative Design 523 Reading Research: A Narrative Design Study 523

Chapter 16 Mixed Methods Designs 536

What Is Mixed Methods Research, When Is It Used, and How Did It Develop? 537

When Do You Conduct a Mixed Methods Study? 537
• How Did Mixed Methods Research Develop? 538

What Are the Types of Mixed Methods Designs? 541

The Convergent Design 543 • The Explanatory
Sequential Design 545 • The Exploratory Sequential
Design 546 • The Experimental Design 547 • The
Social Justice Design 549 • Multistage Evaluation
Design 550

What Are the Key Characteristics of Mixed Methods Designs? 551

Collect and Analyze Quantitative and Qualitative
Data 552 • Use Rigorous Methods 552
• Integration (Combining the Databases) 553 • Use
a Specific Mixed Methods Design 553 • Frame the
Study within Theory and Philosophy 554 • Give
Priority to Either Quantitative or Qualitative Research or
Both 554 • Sequence the Quantitative and Qualitative
Methods 554 • Diagram the Procedures 555

What Are Some Potential Ethical Issues in Mixed Methods Research? 555

What Are the Steps in Conducting a Mixed Methods Study? 556

Step 1. Determine if a Mixed Methods Study Is
Feasible 556 • Step 2. Identify a Rationale
for Mixing Methods 556 • Step 3. Identify a
Data Collection Strategy 557 • Step 4. Develop
Quantitative, Qualitative, and Mixed Methods
Questions 557 • Step 5. Collect Quantitative and
Qualitative Data 558 • Step 6. Analyze Data
Separately, Concurrently, or Both 558 • Step 7. Write
the Report as a One- or Two-Phase Study or a MultipleStage Study 558

How Do You Evaluate a Mixed Methods Study? 559

Key Ideas in the Chapter 560

Mixed Method Research, Its Use, and Its Development 560
• Types of Mixed Methods Designs 560 • Key

Characteristics of Mixed Methods Research 560

• Potential Ethical Issues in Mixed Methods Research 561

Steps Used in Conducting Mixed Methods Research 561
Evaluating a Mixed Methods Study 561

Useful Information for Producers of Research 561
Useful Information for Consumers of Research 562
Additional Resources You Might Examine 562
Examples of Studies That Use a Mixed Methods Design 563
Reading Research: A Mixed Methods Study 563

Chapter 17 Action Research Designs 578

What Is Action Research, When Do You Use It, and How Did It Develop? 579

When Do You Use Action Research? 579 • How Did Action Research Develop? 579

What Are the Types of Action Research Designs? 581

Practical Action Research 581 • Participatory Action
Research 584

What Are the Key Characteristics of Action Research? 588

A Practical Focus 588 • The Teacher-Researcher's

Own Practices 588 • Collaboration 588 •

A Dynamic Process 589 • A Plan of Action 589

• Sharing Research 589

What Are Some Potential Ethical Issues in Action Research? 590

What Are the Steps in Conducting an Action Research Study? 590

Step 1. Determine If Action Research Is the Best
Design to Use 591 • Step 2. Identify a Problem to
Study 591 • Step 3. Locate Resources to Help Address
the Problem 591 • Step 4. Identify Information
You Will Need 591 • Step 5. Implement the Data
Collection 591 • Step 6. Analyze the Data 592

• Step 7. Develop a Plan for Action 592

• Step 8. Implement the Plan and Reflect 592

How Do You Evaluate an Action Research Study? 593 Key Ideas in the Chapter 594

Definition of Action Research, Its Use, and Its
Development 594 • Types of Action Research
Designs 594 • Key Characteristics of Action
Research 594 • Potential Ethical Issues in Action
Research 594 • Steps in Conducting an Action Research
Study 595 • Evaluating an Action Research Study 595

Useful Information for Producers of Research 595
Useful Information for Consumers of Research 595
Additional Resources You Might Examine 596
Examples of Studies That Use an Action Research Design 597
Reading Research: An Action Research Study 597

CONTENTS

Appendix D Nonnormal Distribution 611

Appendix A	Answers to the Chapter Study Questions 603	Appendix E Strategies for Defending a Research Proposal 612
Appendix B	Determine Size Using Sample Size Tables 606	Glossary 614 References 625 Author Index 633
Appendix C	Commonly Used Statistics	Subject Index 637