

# RESEARCH DESIGN

**Qualitative, Quantitative, and  
Mixed Methods Approaches**

SIXTH EDITION

**John W. Creswell**  
*University of Michigan*

**J. David Creswell**  
*Carnegie Mellon University*



Los Angeles | London | New Delhi  
Singapore | Washington DC | Melbourne

# Brief Contents

---

Preface	xvii
Companion Website	xxiii
Acknowledgments	xxv
About the Authors	xxvii
<b>PART I PRELIMINARY CONSIDERATIONS</b>	<b>1</b>
Chapter 1 The Selection of a Research Approach	3
Chapter 2 Review of the Literature	25
Chapter 3 The Use of Theory	51
Chapter 4 Writing Strategies and Ethical Considerations	79
<b>PART II DESIGNING RESEARCH</b>	<b>105</b>
Chapter 5 The Introduction	107
Chapter 6 The Purpose Statement	123
Chapter 7 Research Questions and Hypotheses	143
Chapter 8 Quantitative Methods	157
Chapter 9 Qualitative Methods	191
Chapter 10 Mixed Methods Procedures	227
Glossary	263
References	271
Author Index	279
Subject Index	283

# Detailed Contents

.....

Preface	xvii
Companion Website	xxiii
Acknowledgments	xxv
About the Authors	xxvii

## **PART I PRELIMINARY CONSIDERATIONS 1**

<b>Chapter 1 The Selection of a Research Approach 3</b>	<b>3</b>
Learning Objectives	3
Introducing Key Terms in this Chapter	3
Three Approaches or Methodologies in Research	4
Three Major Components of a Research Approach	6
Philosophical Worldviews	6
<i>The Postpositivist Worldview</i>	7
<i>The Constructivist Worldview</i>	9
<i>The Transformative Worldview</i>	10
<i>The Pragmatic Worldview</i>	11
Research Designs	13
<i>Quantitative Designs</i>	13
<i>Qualitative Designs</i>	14
<i>Mixed Methods Designs</i>	15
Research Methods	17
Interconnecting Worldviews, Designs, and Methods	18
Criteria for Selecting a Research Approach	20
The Research Problem and Questions	20
Personal Experiences	21
Audience	22
Summary	22
Key Terms	22
Writing Exercises	23
Additional Readings	23
<b>Chapter 2 Review of the Literature 25</b>	<b>25</b>
Learning Objectives	25
Introduction	25
The Research Topic	26
A Draft Title	26
A Significant Topic	27

<b>The Purpose and Organization of a Literature Review</b>	<b>28</b>
Purpose of a Literature Review	28
The Organization of the Literature Review	29
<i>General Forms</i>	29
<i>A Qualitative Structure</i>	29
<i>A Quantitative Structure</i>	31
<i>A Mixed Methods Structure</i>	32
<b>Steps in Conducting a Literature Review</b>	<b>32</b>
<b>Searching the Literature</b>	<b>34</b>
Computer Databases	34
Types of Literature	36
<i>Priority of the Literature</i>	36
<i>Overall Evaluation Quality</i>	37
Abstracting the Literature	37
<i>Components of an Abstract</i>	38
<i>Theoretical, Conceptual, and Methodological Abstracts</i>	38
A Literature Map	39
▶ <b>Example 2.1</b> Components of a Methodological Journal Article Abstract	39
<b>Style Manual Use</b>	<b>43</b>
<b>The Definition of Terms</b>	<b>44</b>
General Guidelines	45
Special Terms	46
▶ <b>Example 2.2</b> Defining Terms in a Dissertation	47
Summary	47
Key Terms	48
Writing Exercises	48
Additional Readings	49
<b>Chapter 3 The Use of Theory</b>	<b>51</b>
Learning Objectives	51
Introduction	51
The Varied Use of Theory	52
<b>Quantitative Theory Use</b>	<b>53</b>
Definition of a Theory in Quantitative Research	53
Variables in Quantitative Research	54
Testing Causal Claims in Quantitative Research	56
Stating Theories in Quantitative Research	57
Placement of Quantitative Theories	60
Writing a Quantitative Theoretical Perspective	60
▶ <b>Example 3.1</b> A Quantitative Theory Section	63
<b>Qualitative Theory Use</b>	<b>64</b>
Variation in Theory Use in Qualitative Research	65
Locating the Theory in Qualitative Research	68

▶ <b>Example 3.2</b> A Theory Early in a Qualitative Study	68
▶ <b>Example 3.3</b> Theory at the End of a Qualitative Study	69
<b>Mixed Methods Theory Use</b>	69
Types of Mixed Methods Theory Use	69
Importance of a Theory	71
Distinctions Between a Theory and a Worldview	72
A Theoretically Driven Mixed Methods Study	72
What Theory Informs	73
▶ <b>Example 3.4</b> A Discipline-Based Theory in a Mixed Methods Study	74
<b>Summary</b>	74
<b>Key Terms</b>	75
<b>Writing Exercises</b>	76
<b>Additional Readings</b>	76
<b>Chapter 4 Writing Strategies and Ethical Considerations</b>	<b>79</b>
<b>Learning Objectives</b>	79
<b>Introduction</b>	79
<b>Writing the Proposal</b>	79
Topics Presented in a Proposal	80
A Qualitative Proposal	80
▶ <b>Example 4.1</b> A Qualitative Constructivist or Interpretivist Format	81
A Quantitative Proposal	81
▶ <b>Example 4.2</b> A Qualitative Participatory or Social Justice Format	82
▶ <b>Example 4.3</b> A Quantitative Format	82
A Mixed Methods Proposal	83
▶ <b>Example 4.4</b> A Mixed Methods Format	83
Designing the Sections of a Proposal	84
<b>Writing Strategies</b>	84
The Process	84
The <i>Habit of Writing</i>	85
Clear and Concise Writing	87
Coherence	88
Voice, Tense, and “Fat”	91
<b>Ethical Issues</b>	93
Prior to Beginning the Study	95
Beginning the Study	97
Collecting the Data	98
Analyzing the Data	99
Reporting, Sharing, and Storing Data	100
<b>Summary</b>	102
<b>Key Terms</b>	102
<b>Writing Exercises</b>	102
<b>Additional Readings</b>	103

<b>PART II DESIGNING RESEARCH</b>	<b>105</b>
<b>Chapter 5 The Introduction</b>	<b>107</b>
Learning Objectives	107
Introduction to a Study	107
The Importance of Introductions	108
An Abstract for a Study	109
Qualitative, Quantitative, and Mixed Methods Introductions	110
A Model for an Introduction	111
An Illustration of an Introduction	112
The Research Problem	112
Evidence From the Literature	
Justifying the Problem	115
Deficiencies in the Evidence	117
▶ <b>Example 5.1</b> Deficiencies in the Literature—Needed Studies	117
▶ <b>Example 5.2</b> Deficiencies in the Literature—Few Studies	118
Importance of the Problem for Audiences	118
▶ <b>Example 5.3</b> Significance of the Study Stated in an Introduction to a Quantitative Study	119
Summary	119
Key Terms	119
Writing Exercises	120
Additional Readings	120
<b>Chapter 6 The Purpose Statement</b>	<b>123</b>
Learning Objectives	123
Introduction	123
Significance of a Purpose (or Study Aim) Statement	124
A Qualitative Purpose Statement	125
▶ <b>Example 6.1</b> A Purpose Statement in a Qualitative Phenomenology Study	127
▶ <b>Example 6.2</b> A Purpose Statement in a Qualitative Case Study	128
▶ <b>Example 6.3</b> A Purpose Statement in a Narrative Study	129
▶ <b>Example 6.4</b> A Purpose Statement in a Grounded Theory Study	129
A Quantitative Purpose Statement	130
▶ <b>Example 6.5</b> A Purpose Statement in a Survey Study	132
▶ <b>Example 6.6</b> A Purpose Statement in a Dissertation Survey Study	132
▶ <b>Example 6.7</b> A Purpose Statement in an Experimental Study	133
A Mixed Methods Purpose Statement	134
▶ <b>Example 6.8</b> A Convergent Mixed Methods Purpose Statement	137
▶ <b>Example 6.9</b> An Explanatory Sequential Mixed Methods Purpose Statement	138
▶ <b>Example 6.10</b> An Exploratory Sequential Mixed Methods Purpose Statement	139

Summary	140
Key Terms	140
Writing Exercises	141
Additional Readings	141
<b>Chapter 7 Research Questions and Hypotheses</b>	<b>143</b>
Learning Objectives	143
Introduction	143
Quantitative Research Questions and Hypotheses	144
▶ <b>Example 7.1</b> Script for a Descriptive Quantitative Research Question	145
▶ <b>Example 7.2</b> Script for a Relationship-Oriented Quantitative Research Question and Directional Hypothesis	145
▶ <b>Example 7.3</b> Example of Quantitative Directional Hypotheses	146
Qualitative Research Questions	146
▶ <b>Example 7.4</b> A Qualitative Central Question in an Ethnography	149
▶ <b>Example 7.5</b> Qualitative Central Questions in a Case Study	149
▶ <b>Example 7.6</b> Qualitative Sub-Questions	150
Mixed Methods Research Questions and Hypotheses	150
▶ <b>Example 7.7</b> Statement of Objectives in a Mixed Methods Study	152
▶ <b>Example 7.8</b> Research Questions in a Mixed Methods Study	153
Summary	154
Key Terms	154
Writing Exercises	154
Additional Readings	155
<b>Chapter 8 Quantitative Methods</b>	<b>157</b>
Learning Objectives	157
Introduction	157
Putting Quantitative Research in Context	158
Quantitative Designs	158
Components of a Survey Study Method Plan	159
The Survey Design	161
The Purpose	161
Rationale for Using the Survey Method	161
Type of Survey Method	161
Specify the Form of Data Collection	161
The Population and Sample	162
<i>The Population</i>	162
<i>Sampling Design</i>	162
<i>Type of Sampling</i>	162
<i>Population Stratification</i>	163
<i>Sample Size Determination</i>	163
<i>Power Analysis</i>	163
Instrumentation	163
<i>The Survey Instruments Used to Collect Data</i>	164

<i>Instruments and Measures</i>	164
<i>Validity of Scores Using the Instrument</i>	164
<i>Reliability of Scores on the Instrument</i>	165
<i>Inter-Rater Reliability</i>	165
<i>Sample Items</i>	165
<i>Content of an Instrument</i>	165
<i>Pilot Testing</i>	166
<i>Administering the Survey</i>	166
Variables in the Study	166
Data Analysis	167
Preregistering the Study Plan	169
Interpreting Results and Writing a Discussion Section	170
<i>Reporting Results</i>	170
<i>Statistical Tests in Survey Research</i>	170
<i>Practical Evidence</i>	172
<i>Context of Previous Studies</i>	172
Components of an Experimental Study Method Plan	172
Participants	173
<i>Recruiting Participants</i>	173
<i>Random Assignment</i>	174
<i>Power Analysis for Sample Size</i>	174
<i>Formal Design Statement</i>	174
Variables	175
<i>Independent Variables</i>	175
<i>Manipulation Check</i>	175
<i>Dependent Variables</i>	175
<i>Other Variables</i>	175
Instrumentation and Materials	176
<i>Materials</i>	176
<i>Cover Story</i>	176
Experimental Procedures	176
<i>Type of Experiment</i>	177
▶ <b>Example 8.1</b> Pre-Experimental Designs	178
▶ <b>Example 8.2</b> Quasi-Experimental Designs	179
▶ <b>Example 8.3</b> True Experimental Designs	179
▶ <b>Example 8.4</b> Single-Subject Designs	180
Threats to Validity	180
<i>Internal Validity</i>	180
<i>External Validity</i>	182
The Procedure	182
Data Analysis	184
<i>Reporting the Descriptive Statistics</i>	184
<i>Preliminary Analysis</i>	184
<i>Inferential Statistical Tests</i>	184
<i>Factorial Designs</i>	184
<i>Single-Subject Designs</i>	185
Preregistering the Study Plan	185
Interpreting Results and Writing a Discussion Section	185
▶ <b>Example 8.5</b> An Experimental Method Plan	186
Summary	187



Key Terms	187
Writing Exercises	187
Additional Readings	188
<b>Chapter 9 Qualitative Methods</b>	<b>191</b>
Learning Objectives	191
Introduction	191
Putting Qualitative Research Into Context	192
Participants' Meanings	193
Natural Setting	193
Researcher as Key Instrument	193
Multiple Sources of Data	193
Inductive and Deductive Data Analysis	194
Emergent Design	194
Reflexivity	194
Researcher's Role	195
A Complex Account	195
The Approach or Design	195
Descriptive Methods	196
Analytic Frameworks	196
Data Collection Procedures	198
Sampling and Recruitment	198
Permissions	199
Data Collection Types	199
Ethical Issues	201
Data Recording Procedures	202
<i>Observation Protocol or Guide</i>	203
<i>Interview Protocol</i>	203
Data Analysis Procedures	205
Simultaneous Procedures	205
Winnowing the Data	206
Using Qualitative Computer	
Software Programs	206
Steps in the Analytic Process	207
<i>Step 1. Organizing and Preparing the Data for Analysis</i>	207
<i>Step 2. Reading Through All the Data</i>	207
<i>Step 3. Coding the Data</i>	207
<i>Step 4. Identifying Themes</i>	207
<i>Step 5. Developing a Story Line Interpretation</i>	209
<i>Step 6. Further Analyzing the Data Using an Analytic Framework</i>	209
<i>Step 7. Representing and Interpreting the Data</i>	209
Coding the Data	209
<i>Expected Codes</i>	210
<i>Surprising Codes</i>	210
<i>Codes of Unusual or Conceptual Interest</i>	211
<i>Predetermined Codes</i>	211
<i>Visual Images as Codes</i>	211

Interpretation	212
Validity and Reliability	212
Defining Qualitative Validity	213
Validity Strategies	213
Reliability Strategies	215
Intercoder Agreement	215
Qualitative Generalization	215
Writing the Qualitative Report	216
Writing Strategies	216
A Sample Qualitative Method Section	217
The Qualitative Research Paradigm	217
The Ethnographic Research Design	218
The Researcher's Role	219
Bounding the Study	219
<i>Setting</i>	219
<i>Actors</i>	220
<i>Events</i>	220
<i>Processes</i>	220
Ethical Considerations	220
Data Collection Strategies	221
Data Analysis Procedures	221
Verification	222
Reporting the Findings	223
Summary	223
Key Terms	224
Writing Exercises	224
Additional Readings	225
<b>Chapter 10 Mixed Methods Procedures</b>	<b>227</b>
Learning Objectives	227
Introduction	227
Putting Mixed Methods Research in Perspective	228
Characteristics of Mixed Methods Research	229
Justification for Using	
Mixed Methods Research	231
Definitions of Mixed Methods Terms	232
Open- and Closed-Ended Data	232
Research Design	233
Integration	233
Joint Display	233
Metainferences	234
The Process of Conducting a Mixed Methods Study	234
Quantitative and Qualitative Data Collection	234
Core Mixed Methods Designs	235
<i>The Convergent Mixed Methods Design</i>	235
<i>Explanatory Sequential Mixed Methods Design</i>	240
<i>Exploratory Sequential Mixed Methods Design</i>	242

Complex Mixed Methods Designs	244
<i>Types of Complex Designs</i>	244
<i>Development of Complex Designs</i>	245
<i>Examples of Complex Designs</i>	245
<i>Incorporating Core Designs Into Complex Designs</i>	249
Factors Important in Choosing a Mixed Methods Design	250
<i>Choice Based on Intent and Procedures</i>	250
Other Reasons for Choosing a Design	252
<i>Popular Designs in a Field or Discipline</i>	252
<i>The Single Researcher Versus a Team</i>	253
<i>Choice of Design by Advisers or Mentors</i>	254
<i>Secondary Reasons for a Choice</i>	254
Examples of Mixed Methods Procedures	255
▶ <b>Example 10.1</b> A Convergent Mixed Methods Design	255
▶ <b>Example 10.2</b> An Explanatory Sequential Mixed Methods Design	256
▶ <b>Example 10.3</b> An Exploratory Sequential Mixed Methods Design	257
▶ <b>Example 10.4</b> Social Justice Design	258
Summary	259
Key Terms	260
Writing Exercises	260
Additional Readings	260
Glossary	263
References	271
Author Index	279
Subject Index	283