

# Contents

About the Authors	vii
Preface	xxvii
A Note to the Reader	xxxv
<b>1. Achieving Lasting Behavior Change By Applying Behavior Analysis: What Is It and How Does It Work?</b>	<b>1</b>
Introduction	2
<i>The Radical Behavioral Approach</i>	5
The Origin and Evolution of the Field of Applied Behavior Analysis	6
Applied Behavior Analysis Today	8
<i>Definition of ABA</i>	8
The Essential Features of Applied Behavior Analysis: A Scientific, Technological and Professional Approach	9
<i>ABA as a Scientific Approach</i>	9
<i>Applied Behavior Analysis as a Technology of Behavior Change</i>	11
<i>Applied Behavior Analysis as a Profession</i>	12
Professionalism of Applied Behavior Analysis	13
Contemporary Behavior Analytic Practice	13
What Path Does Applied Behavior Analysis Generally Follow?	14
<i>Identifying and Deciding to Address a Problem or Challenge</i>	17
<i>Designing and Implementing an ABA Program</i>	17
<i>Preparing an Environment Supportive of Constructive Change</i>	17
<i>Specifying and Refining Goals and Objectives</i>	18
<i>Identifying Current Reinforcers</i>	18
<i>Collecting Useful Data</i>	18
<i>Promoting Positive Change</i>	19
<i>Implementing, Monitoring, and Experimentally Analyzing the Function of the Intervention Plan</i>	19
<i>Getting There: Continue Monitoring Behavior and Fidelity of Intervention</i>	19
<i>Staying There</i>	19
Summary and Conclusions	20

<b>2. Designing Effective Strategies of Change: Essential Building Blocks</b>	<b>21</b>
What is Behavior?	22
What is Learning?	23
What is Teaching?	23
How Does Behavior Analysis Work?	23
<i>Behavioral Principles and Procedures</i>	25
What Does the Term Environment Mean?	26
<i>Differentiating "Environment" from "Stimulus"</i>	25
Respondent Behavior and Respondent Conditioning	27
Operant Behavior and Operant Learning (Conditioning)	28
The "C" in Operant Learning (Conditioning)	29
<i>Positive and Negative Reinforcement Defined and Illustrated</i>	29
<i>Extinction, Positive Punishment, and Negative Punishment Defined and Illustrated</i>	30
The Role of Antecedents ("A"s) in Operant Learning	31
<i>Antecedent Stimuli Defined and Illustrated</i>	31
Motivating Operations as Antecedent Events	32
Summary and Conclusions	32
<b>3. Preparing a Supportive Environment for Behavior Change</b>	<b>34</b>
Familiarize Yourself with the Client(s) and Setting	35
<i>Analyze the Current Operating System or Culture</i>	36
<i>Involve Key People</i>	37
<i>Determine Available Resources</i>	37
<i>Assess Current Skill Levels</i>	37
<i>Select Behavioral Objectives and Interventions Collaboratively</i>	38
<i>Analyze the Function of Current Contingencies</i>	38
Select and/or Design Change Methods	39
<i>Select or Devise Behavioral Measures</i>	39
<i>Analyze the Function of the Treatment</i>	39
<i>Prepare for Constructive Behavioral Support and Change</i>	39
<i>Organize and Manage Team Operation</i>	40
Client Behavior Change: Program Development and Selection	42
<i>Plan for Generalization from the Start</i>	42
<i>Ensure Treatment Integrity</i>	43
<i>Measuring Treatment Integrity</i>	44
Assure Contextual Fit When Selecting Goals and Interventions	45
<i>Select Interventions Collaboratively</i>	47
<i>Involving Clients and Stakeholders</i>	48
<i>Use Acceptable and Comprehensible Language to Clarify Contingency Managers' Tasks</i>	48
<i>If Necessary, Temporarily Incorporate, then Fade Intervention Prompts within the Natural Environment</i>	51
Support for the Contingency Manager(s): Performance Feedback	52
Summary and Conclusions	54
<b>4. Sharpening the Focus by Refining Goals and Objectives</b>	<b>56</b>
Getting Started	58
Your Organization's Mission	58
Organizational Culture	59
WHAT IS Strategic Planning?	60
What is Behavioral Assessment?	60
Setting Goals	62
<i>Goals Defined and Illustrated</i>	62

<i>Factors Influencing Goal Selection</i>	62
<i>Deciding Whether to Proceed</i>	63
Defining Problems and Tentative Goals Behaviorally	68
Refining Your Selection of Goals	70
General Considerations in Goal Selection	71
<i>Achievable Yet Challenging</i>	71
<i>Constructive and Functional Goals</i>	71
<i>Direct Rather than Indirect Approach</i>	73
<i>Foundational Skills</i>	73
<i>Immediate and Long-Term Benefits</i>	74
<i>Age and Developmental Level</i>	75
Preventing and Resolving Goal Conflicts	75
<i>Participative Goal Setting</i>	76
<i>Arranging for Advocacy</i>	76
<i>Terminating Services</i>	77
<i>Supporting Voluntariness over Coercion</i>	77
Behavioral Objectives	78
<i>Defined</i>	78
<i>Sample Behavioral Objectives</i>	80
Summary and Conclusions	81
<b>5. Reinforcement: Fueling Behavior Change</b>	<b>83</b>
Defining the Term <i>Reinforcement</i>	84
<i>Natural vs. Planned Reinforcement</i>	84
The Reinforcement Procedure Defined and Illustrated	86
Reinforcers Defined, Illustrated, and Differentiated from <i>Reward</i>	87
Differences between Reinforcers and Reinforcement Procedures	88
Positive Reinforcers and Positive Reinforcement Procedures Defined, Illustrated, and Differentiated	89
Negative Reinforcers and Aversive Stimuli Defined and Illustrated	90
Negative Reinforcement Procedures Defined and Illustrated	91
Escape and Avoidance Defined and differentiated	91
<i>Using Escape as a Negative Reinforcer</i>	93
Differentiating Positive from Negative Reinforcers	94
Are Positive and Negative Reinforcement Really Different?	95
Is Applying Negative Reinforcement Advisable?	95
Common Concerns or Disadvantages with Using Reinforcement	97
<i>Use of Contrived Reinforcers</i>	97
<i>Unwanted Side-Effects of Reinforcement</i>	97
<i>Bribery</i>	98
<i>Treating People Differently</i>	99
<i>Loss of Intrinsic Motivation (The "Overjustification Effect")</i>	99
Summary and Conclusions	100
<b>6. Increasing Behavior by Developing and Selecting Powerful Reinforcers</b>	<b>102</b>
How Does a Stimulus Develop into a Reinforcer?	103
<i>Primary or Unconditioned Reinforcers and Aversive Stimuli</i>	103
<i>Secondary or Learned (Conditioned) Reinforcers</i>	104
<i>Secondary (Conditioned) Aversive Stimuli</i>	105
<i>Developing Secondary Reinforcers</i>	105
<i>Generalized Reinforcers and How They Develop</i>	106

Classes of Reinforcers and Automatic Reinforcers	107
Selecting Reinforcers for Individual Application	108
<i>Selecting Reinforcers: Surveys and Reports</i>	108
<i>Selecting Reinforcers: Observation and Preference Assessments</i>	109
<i>Ethical Considerations in Assessing Behavior</i>	117
<i>Consider Motivating (Establishing) Operations and Response Deprivation in Reinforcer Selection</i>	117
<i>Consider Individual Differences and Receptivity to Reinforcing Events: "Different Strokes for Different Folks"</i>	119
<i>Select and Use a Variety of Reinforcers</i>	119
<i>Novelty in Reinforcer Selection</i>	120
<i>The Value of Reinforcer Sampling</i>	120
<i>The Role of the Reinforcer Mediator</i>	122
Summary and Conclusions	122
<b>7. Organizing for Behavior Change by Collecting Useful Data</b>	<b>124</b>
Behavioral Assessment	125
<i>Behavioral Assessment Defined and Illustrated</i>	128
<i>Four Characteristics of a Good Measurement System</i>	128
<i>Selecting Measures that Contribute to Treatment Outcome</i>	129
<i>Designing or Selecting a Behavioral Measurement Method</i>	129
Selecting Valid Measures	130
<i>Reactivity and Adaptation</i>	130
Selecting Reliable Measurement Systems	131
<i>Calculating Interobserver Agreement</i>	132
Measuring Treatment Integrity	132
<i>Factors Influencing Validity of Assessment</i>	132
<i>Instructional Demand</i>	133
<i>Measurement Complexity</i>	133
<i>Observer Awareness of Being Assessed</i>	134
<i>Observational Bias</i>	134
The Measurement Process	134
<i>Measuring Behavioral Products</i>	134
<i>Measuring Transitory Behaviors</i>	135
Recording and Reporting Transitory Behavior	136
<i>Event (Rate) Recording</i>	136
<i>Duration Recording</i>	137
<i>Latency</i>	138
<i>Interresponse Time (IRT)</i>	139
<i>Interval Time-Sampling Systems</i>	139
<i>Selecting a Time-Sampling Method</i>	141
<i>Selecting Appropriate Measurements Based Upon Dimensions of Behavior</i>	144
<i>Episodic Severity or Intensity</i>	144
<i>Observing Behavior in Groups</i>	146
Methods for Calculating Interobserver Agreement	147
<i>IOA for Permanent Product Measuring</i>	147
<i>IOA for Event Measures</i>	147
<i>Indices of Agreement (IOAs) for Duration and Interresponse Time (IRT) Measures</i>	148
<i>IOA for Interval Time-Sampling Measures</i>	148
Reporting Reliability Data	149
Summary and Conclusions	149
<b>Summary Table: Choosing Direct Behavioral Observational Methods</b>	<b>151</b>

**8. Optimizing Client Progress by Monitoring Behavior Change: Recording, Graphing, and Analyzing Patterns of Change 151**

Implementing Observational Systems	153
<i>Behavior-Recording Staff</i>	153
<i>Automated Recording Systems</i>	155
Scheduling Behavioral Recording	156
<i>Frequency of Recording</i>	156
<i>Duration of Recording Phases</i>	157
<i>Definitional Detail</i>	157
<i>Unit of Analysis</i>	157
Graphing Behavioral Data	158
<i>Graphing Guidelines</i>	160
<i>Standard Format for a Graph</i>	160
<i>Steps in Graph Construction</i>	161
<i>Graphic Variations</i>	162
<i>Bar Graphs</i>	162
<i>Cumulative Records</i>	163
<i>Standard Celeration Charts</i>	167
<i>Monitoring Changes in Behavior Patterns</i>	167
Interpreting Behavioral Data	170
<i>Reporting Demographic Variables</i>	174
Summary and Conclusions	174

**9. Optimizing Client Progress by Analyzing the Functions of Our Interventions: Basic Experimental Designs 175**

<i>Common Myths</i>	176
Advantages of Single-Subject Experimental Designs	178
<i>Demonstrating Functional Relations</i>	179
General Requirements for Single-Subject Designs	182
Withdrawal (Return to Baseline) Designs	182
<i>Selecting and Using the Withdrawal (Return-to-Baseline) Design</i>	184
<i>Actual Illustrations</i>	185
<i>The (True) Reversal Design</i>	187
<i>Additional Return-to-Baseline Design Variations</i>	187
<i>Advantages of the Withdrawal or Return-to-Baseline Design (A-B-A-B)</i>	189
<i>Disadvantages of the Withdrawal or Return-to-Baseline Design</i>	189
Multiple-Baseline Design	190
<i>Using Multiple-Baseline Designs</i>	190
<i>Variations of the Multiple-Baseline Design</i>	192
<i>Planning and Implementing Multiple-Baseline Designs</i>	196
<i>Advantages and Disadvantages of Multiple-Baseline Designs</i>	196
Summary and Conclusions	200

**10. Setting a Foundation for Positive Change: Identifying Participant’s Functional Reinforcers 201**

The Term “Functional”	203
Functional Behavioral Assessment	204
Various Functions of Behavior	205
Approaches to Conducting FBAs	207
<i>Biological &amp; Physiological Influences</i>	207
<i>Indirect (Anecdotal) Assessments</i>	208

<i>Descriptive Assessments</i>	212
<i>Structured ABC Assessment</i>	217
<i>Functional Analysis</i>	220
<i>Methodological Variations</i>	224
Telehealth Service Delivery Model and Functional Behavior Assessment	224
From FBA to Treatment Development	225
<i>Selection of Replacement Behavior</i>	225
<i>Selecting an Intervention</i>	226
Legal and Ethical Implications of Conducting Functional Behavioral Assessments in Schools	228
Summary and Conclusions	230
<b>11. Rapidly Attaining Positive Change: Implementing Reinforcement Effectively</b>	<b>233</b>
Informed Consent	234
Enhancing Reinforcer Effectiveness	235
<i>Selecting Effective Reinforcers</i>	235
<i>Timing of Reinforcer Delivery</i>	235
<i>Teaching Delay of Gratification—Improving Self-Control</i>	236
<i>Using Supplementary Reinforcers</i>	238
<i>Using Labeled Praise</i>	238
<i>Teaching Clients to Discriminate Contextual Factors</i>	239
<i>Determining the Magnitude and Quantity of Reinforcers</i>	240
<i>Incorporating Client Choice</i>	243
<i>Providing Contingent Reinforcement under Diverse Circumstances: At Different Times, in Many Places, and with Different People</i>	244
<i>Reducing, Overriding or Removing Competing Contingencies</i>	247
<i>Avoiding Reinforcing Behaviors Targeted for Reduction</i>	248
<i>Using Reinforcement Schedules to Promote and Support Lasting Change</i>	249
Self-Management: Its Features and Function	252
<i>Using Successful Self-Management Methods</i>	254
Summary and Conclusions	258
<b>Summary Table: Increasing Behavior via Reinforcement</b>	<b>259</b>
Summary Table: Negative Reinforcement	260
<b>12. Promoting and Supporting Group Change: Programs and Packages</b>	<b>261</b>
What is the Value of Formally Arranging Group Contingencies?	262
Illustrative Group Contingencies	262
<i>Independent Group Contingencies</i>	262
<i>Interdependent Group Contingencies</i>	263
<i>Dependent Group Contingencies</i>	264
<i>Advantages and Disadvantages of Dependent and Interdependent Group Contingencies</i>	265
<i>Reducing Unwanted Behavior by Combining Group Contingencies with Extinction</i>	266
Defining and Applying Peer-Mediated Strategies	268
Token Systems	271
<i>Advantages and Disadvantages of Token Systems</i>	272
<i>Considering Whether to Implement a Token Economy</i>	274
<i>Preliminary Steps in Designing a Token Economy</i>	274
<i>Adjusting the Token System to Local Circumstances</i>	275
Selecting Flexible versus Fixed Earning Requirements	277
<i>Implementing Token Economies Effectively</i>	277
<i>Reducing Behavior within a Token Economy</i>	279
<i>Methods for Maintaining Performance Improved via Token Economies</i>	280
Summary and Conclusions	281

<b>13. Teaching New Behavior: Shaping</b>	<b>283</b>
Shaping Defined and Illustrated	284
<i>Shaping Defined</i>	284
<i>Shaping Illustrated</i>	285
<i>Shaping the Performance of Adult Learners</i>	289
Using Shaping Effectively	290
<i>Familiarize Yourself with Learners' Current Repertoires</i>	290
<i>Choose and Apply an Ongoing Measurement System</i>	291
<i>Keep Your Eye on the Goal</i>	291
<i>Find a Starting Point and Supportive Environment</i>	291
<i>Select Step Size and Duration for Remaining on a Step</i>	293
<i>Combine Shaping with Discriminative Stimuli</i>	294
<i>"Shaping" with Goal-Setting</i>	295
<i>End Every Shaping Session on a High Note</i>	296
<i>Consider Combining Physical Guidance with Shaping</i>	298
<i>Combine Fading with Shaping</i>	298
Illustrative Instructional Programs that Incorporate Shaping	299
<i>Shaping and Programmed Instruction</i>	299
<i>Shaping and the Personalized System of Instruction (PSI)</i>	302
<i>Shaping and Computer-Assisted Instruction</i>	302
Summary and Conclusions	305
<b>14. Teaching Complex Behaviors: Chaining, Task Analyses, and Social Skills Training</b>	<b>306</b>
What is a Behavior Chain?	307
<i>Chaining Defined and Illustrated</i>	307
<i>Behavioral Links or Units</i>	308
<i>Choosing Behavioral Links</i>	309
<i>Linking Behavioral Chains</i>	310
<i>Different Classes of Chains and Their Components</i>	313
Effectively Linking Behavioral Chains	314
<i>Analyze the Task Precisely</i>	315
<i>Develop and Validate the Task Analyses</i>	315
<i>Use Links Already in the Learner's Response Repertoire</i>	316
<i>Plan an Appropriate Starting Point</i>	318
<i>Consider Using Supplementary Reinforcers</i>	322
<i>Consider Using Supplementary Discriminative Stimuli</i>	322
<i>Combine Shaping with Chaining</i>	325
<i>Combine Chaining with Fading</i>	326
<i>Consider Instructing Students in Pairs while Using a Time-Delay Procedure</i>	326
Teaching Social Skills by Means of Chaining	327
<i>A Special Application</i>	327
<i>Social Skills as Behavioral Chains</i>	328
<i>Identifying Social Skill Deficits</i>	320
<i>Social Skills for Academic and Job Survival</i>	329
<i>Using Chaining to Teach Social Skills</i>	331
Coping With Unwanted Chains	332
<i>Unchaining</i>	334
<i>Reducing Behavior by Blocking Links in a Behavioral Chain</i>	335
Strengthening and Expanding Newly Acquired Behavior	335
Summary and Conclusions	336
<b>Summary Table: Procedures for Teaching New Behavior</b>	<b>338</b>

<b>15. Attaining Complex Behavior by Promoting and Supporting Antecedent Control</b>	<b>339</b>
The Evolution of Stimulus Control within Individuals and Groups	340
What is Stimulus Control?	340
<i>Establishing Discriminative Control</i>	344
<i>Discriminative or Stimulus Control Illustrated</i>	344
<i>Using Differential Reinforcement Effectively</i>	348
How to Produce Complex Behavior Utilizing Stimulus Control	350
Contextual Variables	351
<i>Motivating Operations Defined and Illustrated</i>	351
<i>Motivating Stimulus Defined and Illustrated</i>	353
<i>Subclasses of Motivating Operations</i>	353
Summary and Conclusions	355
<b>16. Selecting and Applying Methods for Promoting Stimulus Control</b>	<b>357</b>
Simple Discriminations	358
Discriminations Among Multiple Stimuli	359
<i>Identifying Obscure S<sup>o</sup>s</i>	360
<i>Control by Complex Stimuli</i>	361
Conditional Discriminations	363
Stimulus Equivalence and Equivalence Classes	369
<i>Stimulus Equivalence</i>	369
<i>Equivalence Classes</i>	370
<i>Reflexivity</i>	371
<i>Symmetry</i>	371
<i>Transitivity</i>	372
Summary and Conclusions	373
<b>17. Achieving Stimulus Control</b>	<b>374</b>
Stimulus Change	375
<i>Defined and Illustrated</i>	375
<i>Advantages of Stimulus Change</i>	378
<i>Disadvantages of Stimulus Change</i>	378
<i>When Stimulus Change Fails</i>	379
Goal-Setting	379
<i>Goal-setting Defined and Illustrated</i>	379
<i>Goals as Motivating Operations</i>	380
<i>Effective Goal-setting</i>	382
Prompting	385
<i>Prompting Defined and Illustrated</i>	385
<i>Using Prompts Effectively</i>	385
Fluency, and Supporting Stimulus Control with Precision Teaching	392
Summary and Conclusions	394
<b>18. Prompting Procedures and Instructional Programs</b>	<b>397</b>
Using Prompting Effectively	398
Prompting by Instructing (“Telling”)	398
<i>Defined and Illustrated</i>	398
<i>Using the Tell Procedure Effectively</i>	399
Direct Instruction	403
Discrete Trial Training (DTT)	404
<i>DTT Differentiated from Free Operants</i>	405
<i>Selecting Free versus Discriminated Operants</i>	406

Providing a Model: Imitative Prompts	406
<i>Defined and Illustrated</i>	406
<i>Developing Modeled Behavior into Imitative Prompts or Discriminative Stimuli</i>	408
<i>Combining Modeling with Shaping</i>	409
<i>Increasing Generalized Imitative Responding</i>	410
<i>Video Modeling</i>	410
<i>Using Modeling Effectively: Model Selection</i>	413
<i>Using Modeling Effectively: Managing Contingencies</i>	415
Physical Guidance	419
<i>Defined and Illustrated</i>	419
<i>Using Physical Guidance Effectively</i>	419
Summary and Conclusions	420
<b>Summary Table: Procedures for Teaching and Prompting Behavior</b>	<b>421</b>
<b>19. Teaching, Expanding and Refining Verbal Behavior</b>	<b>424</b>
B. F. Skinner's Analysis of Verbal Behavior	426
The Duplic	428
<i>The Duplic Defined</i>	428
<i>Duplic Training</i>	428
<i>Echoic Training</i>	429
The Mand	430
<i>The Mand Defined</i>	430
<i>Mand Training</i>	432
The Tact	436
<i>The Tact Defined</i>	436
<i>Tact Training</i>	437
The Intraverbal	438
<i>The Intraverbal Defined</i>	438
<i>Intraverbal Training</i>	440
Listener Behavior	441
Augmentative Verbal Behavioral Strategies	444
Relational Frame Theory and Derived Relational Responding	446
<i>Relating as an Operant</i>	447
<i>Relational Frame Theory in Practice</i>	447
<i>General Recommendations</i>	448
<i>Some Critical Communication Skills</i>	448
Summary and Conclusions	449
<b>Summary Table: Teaching Verbal Behavior</b>	<b>451</b>
<b>20. Promoting Independence: Shifting and Expanding Stimulus Control</b>	<b>454</b>
Reducing Prompt Dependence by Transferring Stimulus Control	454
Delayed Prompting	455
<i>Defined and Illustrated</i>	455
<i>Advantages of Delayed Prompting</i>	457
<i>Disadvantages</i>	458
<i>Using Delayed Prompting Effectively</i>	458
Graduated Prompting	458
Stimulus Fading	459
<i>Defined and Illustrated</i>	459
<i>Using Fading Effectively</i>	463
Errorless Learning	467
<i>Defined and Illustrated</i>	467

<i>Using Fading to Achieve Errorless Learning</i>	468
<i>Using Response and Extra-Stimulus Prompting</i>	470
<i>Disadvantages of Errorless Learning</i>	472
Maintaining Stimulus Control	473
Summary and Conclusions	474
<b>21. Generalization: Expanding Stimulus Control</b>	<b>475</b>
Distinguishing between the Terms <i>Discrimination</i> and <i>Stimulus Generalization</i>	477
Stimulus Generalization and Overgeneralization	477
Distinguishing between <i>Stimulus Generalization</i> and <i>Response Generalization (Induction)</i>	479
Advantages and Disadvantages of Generalization	480
<i>Stimulus Generalization</i>	480
<i>Response Generalization</i>	481
<i>Assessing for Stimulus Generalization</i>	483
Formally integrating Generalization training from the Very Start	483
<i>Request Generalization</i>	484
<i>Prompt Several People in Various Environments to Deliver Reinforcers</i>	485
<i>Teach the Behavior in Various Environments Sequentially</i>	486
<i>Consider Using a Generalization Map</i>	487
<i>Incorporate Common Stimuli Across Instructional Environments</i>	488
<i>Promote Fluency</i>	489
<i>Apply Strategies Designed to Facilitate Carry-Over into the Natural Setting</i>	491
<i>Pre-assess and Reduce Support for Functional Interfering, Maladaptive Behavior</i>	492
<i>Provide Sufficient Exemplars</i>	492
<i>Train Loosely</i>	495
<i>Use Indiscriminable Contingencies</i>	496
<i>Continue Training</i>	497
<i>Teach Participants and Contingency Managers How to Promote and Support Generalization</i>	498
<i>Record and Graph</i>	500
Summary and Conclusion	501
<b>22. Maintaining Behavior: Ratio and Related Schedules of Reinforcement</b>	<b>502</b>
Ratio Schedules Defined and Illustrated	504
Characteristics of Ratio-Schedule Performance	505
<i>Ratio Schedules Usually Produce Fast Responding</i>	506
<i>Consistency of Performance</i>	508
<i>Continued Responding During Extinction</i>	509
Advantages of Ratio Schedules	510
Using Ratio Schedules Effectively	511
<i>Select Schedules to Sustain Desired Rates</i>	511
<i>Thin Gradually</i>	512
<i>Consider Ongoing Reinforcement Schedules Prior to Implementing Extinction to Reduce Problematic Behavior</i>	514
Disadvantages of Ratio Schedules	514
<i>Ratio Strain and Diminishing Performance Quality</i>	514
<i>Interval Schedules Often are Easier to Use</i>	515
Promoting High Rates	516
<i>Provide Clear Instructions and Prompt Imitation of High Rates</i>	516
Differentially Reinforcing Rates	516
<i>Promoting More Rapid Responding</i>	517

<i>Promoting Paced Responding with Differential Reinforcement of Paced Responding (DRP)</i>	517
<i>Promoting Lower Rate Responding with Differential Reinforcement of Low Rates (DRL) and Diminishing Rates (DRD)</i>	518
<i>Promoting Variability of Responding with Lag Schedules</i>	519
Summary and Conclusions	519
<b>23. Maintaining Behavior by Arranging Time Based Schedules of Reinforcement</b>	<b>521</b>
Interval Schedules	522
<i>Defined and Illustrated</i>	522
<i>Fixed-Interval (FI) Schedules</i>	523
<i>Distinguishing between Fixed-Interval and Fixed-Time Schedules</i>	523
<i>Variable-Interval (VI) Schedules</i>	524
Characteristics of Interval-Schedule Performance	524
<i>Rate of Responding under Interval Schedules</i>	525
<i>Maintaining Rates Originally Established under Ratio Schedules</i>	527
<i>Consistency of Performance</i>	528
<i>Error Patterns</i>	530
<i>Managing Impulsivity</i>	530
<i>Responding During Extinction</i>	531
Advantages and Disadvantages of Interval Schedules	532
Promoting Preferred Rates of Responding under Interval Schedules	533
<i>Plan Your Reinforcement Schedule with Care</i>	533
<i>Provide a History Appropriate to Your Objective(s)</i>	534
<i>Place a Limited Hold on Responding</i>	534
<i>Promote Higher Responding with Differential Reinforcement of High Rates (DRH)</i>	536
<i>Use Discriminative Stimuli</i>	536
<i>Arrange Competition</i>	539
<i>Capitalize on Behavioral Contrast</i>	539
<i>Heighten Response Rates under Interval Schedules by Interspersing Easy Tasks</i>	540
How Might Reinforcing One Response Affect Other Responses?	541
Schedule Interactions	543
Summary and Conclusions	544
<b>24. Organizational Performance Management Systems: Supervising and Supporting Contingency Managers</b>	<b>546</b>
Function Matters Most	547
Program Implementation	547
<i>Be Present and Supportive</i>	548
<i>Use Prompts Temporarily and Only as Necessary</i>	549
<i>Provide Feedback on Program Implementation</i>	550
<i>Maximizing the Effects of Feedback for Improving Performance</i>	550
<i>Contingently Remove Aversive Stimuli (Negative Reinforcement)</i>	557
<i>Addressing Program Implementation Problems</i>	557
Program Maintenance	558
<i>Gradually Decrease Prompts</i>	558
<i>Set Goals Jointly</i>	558
<i>Identify and Use Various Reinforcing Sources</i>	560
<i>Parents</i>	560
<i>Clients</i>	561
<i>Peers</i>	561
<i>Supervisors, Managers, Administrators</i>	561

<i>Others</i>	563	
Program Generalization	563	
<i>Consider the Big Picture within the Organization</i>	563	
<i>Contemplate the Even Broader Picture</i>	563	
Summary and Conclusions	564	
<b>Summary Table: Transferring, Finding, and Maintaining Responding</b>		567
<b>Summary Table: Maintaining Behavior</b>	569	
<b>25. Identifying Effective Interventions with Complex Research Designs</b>		<b>574</b>
Preliminary Considerations Prior to Adopting Programs	575	
<i>How Internally Valid is the Program?</i>	575	
<i>How Externally Valid is the Program?</i>	576	
<i>Will Changes in Performance Impact the Bottom Line?</i>	577	
Functionally Analyzing Increases and Decreases in Behavior	577	
Changing-Criterion Design	578	
<i>Changing-Criterion Designs Illustrated</i>	578	
<i>Advantages of Changing-Criterion Design</i>	578	
<i>Disadvantages of Changing-Criterion Design</i>	579	
<i>Using and Demonstrating Control via the Changing-Criterion Design</i>	579	
<i>Overall Number of Criterion Changes</i>	582	
Multiple-Probe Design	582	
<i>The Multiple-Probe Design Illustrated</i>	583	
Alternating-Treatment (Multi-Element) Designs	585	
<i>The Alternating-Treatment Design Illustrated</i>	587	
<i>Using the Alternating-Treatment Design</i>	588	
<i>Advantages of Alternating-Treatment Designs</i>	590	
<i>Disadvantages of Alternating Treatment Designs</i>	591	
Conducting Component and Parametric Analyses	592	
<i>Component Analysis</i>	592	
<i>Parametric Analysis</i>	593	
Selecting Appropriate Single-Subject Designs	594	
Other Considerations with Single-Subject Designs	594	
<i>Irreversibility and Sequence Effects</i>	594	
<i>Determining the Significance of a Demonstrated Functional Relation</i>	598	
<i>Determining Experimental Significance</i>	599	
<i>Other Forms of Significance</i>	600	
Making Decisions Applicable to Large Groups	601	
Cost Effectiveness	602	
Evaluating the Significance of Findings	603	
Probing for Generality and Persistence of Change	603	
Practicing Analytically	603	
Summary and Conclusions	604	
<b>26. Reducing Behavior: Extinction</b>		<b>605</b>
Deciding to Prevent or Reduce Behavior	606	
Targeting a Behavior for Reduction	606	
Nonrestrictive Procedures and the Client's Right to Effective Treatment		609
Extinction	609	
<i>Extinction Defined and Illustrated</i>	609	
<i>Properties of Extinction</i>	610	
<i>Using Extinction Effectively</i>	615	

Summary and Conclusions	621
<b>27. Preventing Challenging Behavior by Enriching the Environment</b>	<b>622</b>
Why Choose Alternatives to Punishment?	623
Positive Behavior Interventions	623
Antecedent Control Strategies	624
Using Stimulus-Change Procedures to Prevent Problematic Behavior	626
<i>Removing Impediments to Goal Behaviors</i>	626
Prompting Strategies for Preventing/Reducing Problem Behavior	626
<i>Presenting Rules or Instructions</i>	626
<i>Presenting Prompts</i>	628
<i>Response Interruption and Redirection</i>	630
<i>Using Activity Schedules: A Behavior Management Problem-Prevention Package Comprised of Several Antecedent Procedures</i>	632
Preventing or Reducing Problematic Behavior by Building a More Reinforcing Environment	632
<i>Greeting Clients</i>	634
<i>Distracting with Preferred Events</i>	634
<i>Behavioral Momentum or High-Probability Request (or Instructional) Sequence</i>	635
<i>Providing Choice</i>	637
<i>Using Participative Goal-Setting: Promoting Success and Preventing Problem Behaviors</i>	638
<i>Reducing Response Demand</i>	638
<i>Promoting Academic/task Success While Preventing Problem Behavior</i>	639
The Importance of a Reinforcing Environment	641
Using Noncontingent Reinforcement (NCR) to Prevent Inappropriate Behavior	642
<i>NCR Defined and Illustrated</i>	642
<i>Advantages and Disadvantages of NCR</i>	645
<i>Using NCR Effectively</i>	647
Other Primary Prevention Methods	648
<i>Modeling</i>	648
<i>Using Social Stories</i>	650
Summary and Conclusions	651
<b>28. Preventing and Reducing Behavior through Differential Reinforcement</b>	<b>653</b>
Differential Reinforcement	655
Differential Reinforcement of Alternative (DRA) And Incompatible (DRI) Behavior	655
<i>DRA and DRI Defined, Illustrated, and Distinguished from One Another</i>	655
<i>DRA and DRI: Group Management Programs</i>	657
<i>Advantages of DRA</i>	658
<i>Disadvantages of DRA</i>	660
<i>Using DRA Effectively</i>	660
Differential Reinforcement of Other Behavior (DRO)	662
<i>DRO Defined and Differentiated from DRA</i>	662
<i>Whole-Interval and Momentary DRO Defined and Illustrated</i>	663
<i>Advantages of DRO</i>	668
<i>Disadvantages of DRO</i>	669
<i>Using DRO Effectively</i>	670
Differentially Reinforcing Lower and Diminishing Rates of Behavior	673
<i>DRL Defined and Illustrated</i>	673
Differential Reinforcement of Diminishing Rates (DRD) Defined and Illustrated	674
<i>Advantages of DRL and DRD</i>	675
<i>Disadvantages of DRL and DRD</i>	676
<i>Effective use of DRL and DRD</i>	677

<i>The Good Behavior Game: An Illustrative DRD Behavior-Management Package</i>	677
Summary and Conclusions	679
<b>29. Reducing Behavior with Negative Punishment: Reosponse Cost and Timeout</b>	<b>682</b>
Negative Punishment Defined	683
Response Cost	684
<i>Response Cost Defined</i>	684
<i>Illustrations of Response Cost Programs</i>	685
<i>A Variation of Response Cost: Bonus Response Cost</i>	686
Timeout from Reinforcement	687
<i>Timeout Defined and Differentiated from Extinction and Response Cost</i>	687
<i>Variations of Timeout</i>	688
Advantages and disadvantages of Response Cost and Timeout	693
<i>Strong and Rapid Behavioral Reduction</i>	693
<i>Promotes Discrimination Learning</i>	694
<i>Potential for Long-Lasting Effects</i>	694
<i>Convenient and Socially Acceptable</i>	694
<i>Not Universally Effective: Misuse Decreases Effectiveness</i>	695
<i>Punitive, Non-Constructive Contingency</i>	695
<i>Potential for Abuse</i>	696
<i>Suppression of Other Behaviors</i>	697
Additional Disadvantages of Timeout	697
<i>Loss of Learning Time</i>	697
<i>Legal and Ethical Considerations</i>	697
<i>Public Concern with Timeout</i>	699
Using Response Cost and Timeout Effectively	699
<i>Apply Immediately</i>	699
<i>Combine with Other Procedures</i>	700
<i>Create a Reinforcing Natural Environment</i>	699
<i>Remove as Many Reinforcers as Feasible During Timeout</i>	699
<i>Determine Magnitude Empirically</i>	700
<i>Use the Smallest Magnitude of Aversive Conditions Found to be Effective</i>	703
<i>Clearly Communicate Response Cost or Timeout Conditions</i>	703
<i>Use Consistently</i>	704
<i>Consider Delivering Response-Cost Points to a Peer</i>	705
<i>Avoid Opportunities for Self-Injury, Self-Stimulation, and Escape during Timeout</i>	705
<i>Monitor Implementation and Progress</i>	706
<i>Design the Program to Minimize Emotional Outbursts</i>	706
Summary and Conclusions	707
<b>30. Reducing Behavior with Positive Punishment while Minimizing Coercion</b>	<b>709</b>
Illustrative Case	710
Positive Punishment Defined	710
Aversive Stimuli Defined and Illustrated	711
<i>Unconditioned or Primary Aversive Stimuli</i>	712
<i>Conditioned or Secondary Aversive Stimuli</i>	712
<i>Intrinsic and Extrinsic Aversive Stimuli</i>	713
<i>Stimuli that Signal Non-reinforcement</i>	713
<i>Conditioning that Transforms Typically Aversive Stimuli into Reinforcers</i>	713
Illustrative Punishment-Based Behavioral Packages	714
<i>Contingent Effort</i>	714
Advantages of Positive Punishment	717

<i>Effectively Stopping Behavior</i>	717	
<i>Halting the Behavior Rapidly; Perhaps Lastingly</i>	717	
<i>Facilitating Adaptive Behavior</i>	718	
<b>Disadvantages of Positive Punishment</b>	719	
<i>Provoking Withdrawal</i>	720	
<i>Suppressing Responses</i>	720	
<i>Promoting Aggression</i>	721	
<i>Promoting Inappropriate Generalization</i>	721	
<i>Setting Conditions for Recovery or Resurgence Afterwards</i>	722	
<i>Promoting Behavioral Contrast</i>	722	
<i>Modeling Punishment</i>	723	
<i>Diminishing “Self-Esteem”</i>	723	
<i>Overusing Punishment</i>	724	
<i>Promoting Habituation to Aversive Stimuli</i>	724	
<i>Generating Public Antipathy</i>	725	
<i>Increasing Costs in the Short Term</i>	725	
<i>Review of Negative Side Effects</i>	725	
<i>Effects of Torture</i>	726	
<b>Using Positive Punishment Effectively</b>	727	
<i>Take Preliminary Steps Prior to Instituting a Positive Punishment Procedure</i>	727	
<i>Reinforce Acceptable Alternative Behaviors</i>	727	
<i>Select Functionally-Effective Aversive Consequences</i>	728	
<i>Vary Effective Aversive Stimuli</i>	730	
<i>Prevent Escape</i>	730	
<i>Apply Immediately and Consistently</i>	730	
<i>Select Appropriate Intensity</i>	732	
<i>Combine Positive Punishment with Extinction</i>	732	
<i>Consider and If Possible, Manage Contextual Factors</i>	733	
<i>Program for Generalization and Maintenance</i>	734	
<i>Monitor Regularly</i>	734	
<i>Teach Optimal Choice Selection Up Front</i>	734	
<i>An Illustration of Optimal Application of Punishment for Extremely Dangerous Self-Abusive Behavior: SIBIS</i>	734	
<b>Applying Contingent Effort</b>	735	
<i>Select Activities Relevant to the Misbehavior</i>	735	
<i>Maintain Consistency of Performance of Aversive Activities</i>	736	
<i>Extend Duration of Aversive Activities</i>	736	
<i>Consider Reinforcing Positive Practice</i>	736	
<b>Right to Effective Treatment</b>	736	
<b>Summary and Conclusions</b>	736	
<b>Summary Table: Preventing and Reducing Behavior</b>	738	
<b>Summary Table: Consequential Methods for Preventing/Reducing Behavior</b>	744	
<b>31. Achieving Lasting Change Ethically</b>	750	
<i>Where and With Whom May We Apply Behavioral Procedures?</i>	751	
<i>Human Values in Applied Behavior Analysis</i>	752	
<i>Professional and Ethical Considerations</i>	752	
<i>ABA Practice within Other Areas of Specialization</i>	752	
<i>Professionalizing Practice: The Behavior Analysis Certification Board®</i>	753	
<i>Your Legal and Ethical Responsibilities as an Applied Behavior Analyst</i>	753	
<i>Guidelines and The Code for Responsible Conduct for Behavior Analysts</i>	754	
<i>Use Scientifically-Validated Assessments and Interventions</i>	754	

<i>Practice within Professional Competence</i>	755	
<i>Being Truthful and Documenting Professional Work</i>		756
<i>Identify and Reconcile Conflicts of Interest</i>	757	
<i>Protect Clients' Dignity, Health, and Safety</i>	758	
<i>Protect Confidentiality</i>	759	
Evaluating and Monitoring Appropriate Services		760
<i>Obtain Written Service Agreement</i>	761	
<i>Continuity, Discontinuing, and Transitioning of Services</i>		762
<i>Practicing Ethically Beyond the Client and Stakeholder</i>		764
Evaluate the Ethical Practices in Organizations Prior to Your Employment		765
Promote and Support Freedom and Dignity	766	
Summary and Conclusions	766	
Appendix I: The BACB Fifth Edition Task List		769
Appendix II PDC-HS	xxx	
Glossary		
References		
Name Index		
Subject Index		