Brief Contents

Learning, Teaching, and Educational Psychology 28

PART I: STUDENTS

- 2 Cognitive Development 56
- 3 The Self, Social, and Moral Development 98
- 4 Learner Differences and Learning Needs 144
- 5 Language Development, Language Diversity, and Immigrant Education 196
- 6 Culture and Diversity 234

PART II: LEARNING AND MOTIVATION

- 7 Behavioral Views of Learning 276
- Cognitive Views of Learning 314
- O Complex Cognitive Processes 352
- The Learning Sciences and Constructivism 394
- Social Cognitive Views of Learning and Motivation 436
- 2 Motivation in Learning and Teaching 468

PART III: TEACHING AND ASSESSING

| 78 678 | Carried Continues and the | | A CORP OF A STREET AND ADDRESS OF THE PARTY | |
|--------|---------------------------|----------|---|------|
| 1 - | Creating | Learning | Environments | 512 |
| 1.7 | Cicating | Learning | LIIVII OIIIIICIIES | ULin |

- 14 Teaching Every Student 554
- Classroom Assessment, Grading, and Standardized Testing 594

Cognitive Development 56

The Self, Social, and Moral Development 98

Learner Differences and Learning Needs 144

Language Development, Language Diversity, and Immigrant Education 196

Culture and Diversity 234

PART II: LEARNING AND MOTIVATION

Behavioral Views of Learning 276

Cognitive Views of Learning 314

Complex Cognitive Processes 352

() The Learning Sciences and Constructivism 394

Social Cognitive Views of Learning and Motivation 436

2 Motivation in Learning and Teaching 468

Contents

Learning, Teaching, and Educational Psychology 28

Teachers' Casebook-Leaving No Student Behind: What Would You Do? 28

Overview and Objectives 29

Learning and Teaching Today 30

Students Today: Dramatic Diversity and Remarkable Technology 30 Confidence in Every Context 31

High Expectations for Teachers and Students 31

Do Teachers Make a Difference? 33

Teacher-Student Relationships 33

The Cost of Poor Teaching 33

What Is Good Teaching? 34

Inside Three Classrooms 34

A Bilingual First Grade 34

A Suburban Fifth Grade 34

An Inclusive Class 35

So What Is Good Teaching 35

Models of Good Teaching 35

Measures of Effective Teaching 38

Beginning Teachers 38

The Role of Educational Psychology 39

In the Beginning: Linking Educational Psychology and Teaching 39

Educational Psychology Today 40

Is It Just Common Sense? 40

Helping Students 40

Answer Based on Research 40

Skipping Grades 40

Answer Based on Research 41

Students in Control 41

Answer Based on Research 41

Obvious Answers? 41

Using Research to Understand and Improve Learning 42

Correlation Studies 42

Experimental Studies 42

Single-Subject Experimental Designs 43

Clinical Interviews and Case Studies 43

Ethnography 43

The Role of Time in Research 44

Quantitative Versus Qualitative Research 44

Point/Counterpoint: What Kind of Research Should Guide Education? 45

Teachers as Researchers 46

Theories for Teaching 47

Supporting Student Learning 48

Summary 50

Key Terms 52

Teachers' Casebook—Leaving No Student Behind: What Would They Do? 53

PART I: STUDENTS

Cognitive Development 56

Teachers' Casebook—Symbols and Cymbals: What Would You Do? 56

Overview and Objectives 57

A Definition of Development 58

Three Questions Across the Theories 58

What Is the Source of Development? Nature Versus

Nurture 58

What Is the Shape of Development? Continuity Versus

Discontinuity 59

Timing: Is It Too Late? Critical Versus Sensitive Periods 59

Beware of Either/Or 59

General Principles of Development 60

The Brain and Cognitive Development 60

The Developing Brain: Neurons 61

The Developing Brain: Cerebral Cortex 63

Adolescent Development and the Brain 64

Putting It All Together: How the Brain Works 65

Neuroscience, Learning, and Teaching 65

Point/Counterpoint: Brain-Based Education 66

Instruction and Brain Development 67

The Brain and Learning to Read 68

Emotions, Learning, and the Brain 69

Lessons for Teachers: General Principles 69

Piaget's Theory of Cognitive Development 70

Influences on Development 71

Basic Tendencies in Thinking 71

Organization 71

Adaptation 72

Equilibration 72

Four Stages of Cognitive Development 72

Infancy: The Sensorimotor Stage 72

Early Childhood to the Early Elementary Years:

The Preoperational Stage 73

Guidelines: Family and Community Partnerships-Helping

Families Care for Preoperational Children 75

Later Elementary to the Middle School Years:

The Concrete-Operational Stage 75

High School and College: Formal Operations 77

Guidelines: Teaching the Concrete-Operational Child 77

Do We All Reach the Fourth Stage? 79

Information Processing, Neo-Piagetian, and Neuroscience

Views of Cognitive Development 79

Guidelines: Helping Students to Use Formal Operations 79

Some Limitations of Piaget's Theory 80

The Trouble with Stages 80

Underestimating Children's Abilities 81

Cognitive Development and Culture 82

Vygotsky's Sociocultural Perspective 82

The Social Sources of Individual Thinking 83

Cultural Tools and Cognitive Development 84

Technical Tools in a Digital Age 84

Psychological Tools 85

The Role of Language and Private Speech 85

Private Speech: Vygotsky's and Piaget's Views Compared 85

The Zone of Proximal Development 87

Private Speech and the Zone 87

The Role of Learning and Development 87

Limitations of Vygotsky's Theory 87

Implications of Piaget's and Vygotsky's Theories for Teachers 88

Piaget: What Can We Learn? 88

Understanding and Building on Students' Thinking 88

Activity and Constructing Knowledge 89

Vygotsky: What Can We Learn? 89

The Role of Adults and Peers 90

Assisted Learning 90

An Example Curriculum: Tools of the Mind 90

Reaching Every Student: Teaching in the "Magic Middle" 91

Guidelines: Applying Vygotsky's Ideas in Teaching 92

Cognitive Development: Lessons for Teachers 92

Summary 92

Key Terms 95

Teachers' Casebook—Symbols and Cymbals: What Would

They Do? 96

The Self, Social, and Moral Development 98

Teachers' Casebook—Mean Girls: What Would You Do? 98

Overview and Objectives 99

Physical Development 100

Physical and Motor Development 100

Young Children 100

Elementary School Years 100

The Adolescent Years 101

Early and Later Maturing 101

Guidelines: Dealing with Physical Differences in the Classroom 102

Play, Recess, and Physical Activity 102

Cultural Differences in Play 102

Exercise and Recess 103

Physical Activity and Students with Disabilities 103

Challenges in Physical Development 103

Obesity 103

Eating Disorders 104

Guidelines: Supporting Positive Body Images in

Adolescents 106

Bronfenbrenner: The Social Context for Development 106

The Importance of Context and the Bioecological Model 107

Families 107

Family Structure 107

Parenting Styles 108

Culture and Parenting 109

Attachment 109

Guidelines: Family and Community Partnerships 110

Divorce 110

Guidelines: Helping Children of Divorce 111

Peers 111

Cliques 111 map and and another source in the

Crowds 111

Peer Cultures 112

Friendships 112

Popularity 112

Causes and Consequences of Rejection 113

Aggression 114

Relational Aggression 114

Media, Modeling, and Aggression 115

Video Games and Aggressive Behavior 115

Reaching Every Student: Teacher Support 115

Guidelines: Dealing with Aggression and Encouraging

Cooperation 116

Academic and Personal Caring 116

Teachers and Child Abuse 117

Society and Media 118

Identity and Self-Concept 119

Erikson: Stages of Psychosocial Development 119

The Preschool Years: Trust, Autonomy, and Initiative 120

The Elementary and Middle School Years:

Industry Versus Inferiority 121

Adolescence: The Search for Identity 121

Guidelines: Encouraging Initiative and Industry 122

Identity and Technology 123

Guidelines: Supporting Identity Formation 124

Beyond the School Years 124

Racial-Ethnic Identity 125

Ethnic Identities: Outcome and Process 125

Racial Identity: Outcome and Process 125

Racial and Ethnic Pride 126

Self-Concept 126

The Structure of Self-Concept 126

How Self-Concept Develops 127

Self-Concept and Achievement 128

Sex Differences in Self-Concept of Academic Competence 128

Self-Esteem 129

Point/Counterpoint: What Should Schools Do to Encourage

Students' Self-Esteem? 130

Understanding Others and Moral Development 131

Theory of Mind and Intention 131

Moral Development 131

Kohlberg's Theories of Moral Development 131

Criticisms of Kohlberg's Theory 132

Moral Judgments, Social Conventions, and Personal Choices 133

Moral Versus Conventional Domains 133

Implications for Teachers 134

Diversity in Moral Reasoning 135

Beyond Reasoning: Haidt's Social Intuitionist Model of Moral Psychology 135

Moral Behavior and the Example of Cheating 136

Who Cheats? 137

Dealing with Cheating 137

Personal/Social Development: Lessons for Teachers 138

Summary 138

Key Terms 141

Teachers' Casebook-Mean Girls: What Would

They Do? 142

Learner Differences and Learning Needs 144

Teachers' Casebook—Including Every Student: What Would You Do? 144

Overview and Objectives 145

Intelligence 146

Language and Labels 146

Disabilities and Handicaps 146

Person-First Language 147

Possible Biases in the Application of Labels 147

What Does Intelligence Mean? 148

Intelligence: One Ability or Many? 148

Multiple Intelligences 149

What Are These Intelligences 149

Critics of Multiple Intelligences Theory 151

Gardner Responds 151

Multiple Intelligences Go to School 151

Multiple Intelligences: Lessons for Teachers 152

Intelligence as a Process 152

Measuring Intelligence 153

Binet's Dilemma 153

What Does an IQ Score Mean? 154

Group Versus Individual IQ Tests 154

The Flynn Effect: Are We Getting Smarter? 154

Guidelines: Interpreting IQ Scores 155

Intelligence and Achievement 155

Gender Differences in Intelligence 156

Heredity or Environment? 157

Being Smart About IQ Tests 157

Learning and Thinking Styles 157

Learning Styles/Preferences 158

Cautions About Learning Styles 158

The Value of Considering Learning Styles 159

Beyond Either/Or 159

Individual Differences and the Law 160

IDEA 160

Least Restrictive Environment 160

Individualized Education Program 161

The Rights of Students and Families 162

Section 504 Protections 162

Guidelines: Family and Community Partnerships—Productive

Conferences 164

Students with Learning Challenges 165

Neuroscience and Learning Challenges 165

Students with Learning Disabilities 166

Student Characteristics 166

Teaching Students with Learning Disabilities 168

Students with Hyperactivity and Attention Disorders 168

Definitions 169

Treating ADHD with Drugs 169

Alternatives/Additions to Drug Treatments 169

Point/Counterpoint: Pills or Skills for Children with

ADHD? 170

Lessons for Teachers: Learning Disabilities and ADHD 171

Students with Communication Disorders 171

Speech Disorders 172

Language Disorders 172

Students with Emotional or Behavioral Difficulties 173

Suicide 174

Guidelines: Disciplining Students with Emotional Problems 175

Drug Abuse 175

Prevention 176

Students with Intellectual Disabilities 177

Guidelines: Teaching Students with Intellectual Disabilities 178

Students with Health and Sensory Impairments 178

Cerebral Palsy and Multiple Disabilities 178

Seizure Disorders (epilepsy) 179

Other Serious Health Concerns: Asthma, HIV/AIDS, and Diabetes 179

Students with Vision Impairments 180

Students Who Are Deaf 180

Autism Spectrum Disorders and Asperger Syndrome 181

Interventions 181

Response to Intervention 182

Students Who Are Gifted and Talented 182

Who Are These Students? 184

What Is the Origin of These Gifts? 184

What Problems Do Students Who Are Gifted Face? 185

Identifying Students Who Are Gifted and Talented 185

Recognizing Gifts and Talents 185

Teaching Students with Gifts and Talents 187

Acceleration 187

Methods and Strategies 188

Summary 189

Key Terms 192

Teachers' Casebook—Including Every Student: What Would

They Do? 193

5 Language Development, Language Diversity, and Immigrant Education 196

Teachers' Casebook—Cultures Clash in the Classroom: What Would You Do? 196

Overview and Objectives 197

The Development of Language 198

What Develops? Language and Cultural Differences 198
The Puzzle of Language 198

When and How Does Language Develop? 198

Sounds and Pronunciation 198

Vocabulary and Meaning 199

Grammar and Syntax 200

Pragmatics: Using Language in Social Situations 200

Metalinguistic Awareness 201

Emergent Literacy 201

Inside-Out and Outside-In Skills 202

Building a Foundation 203

When There Are Persistent Problems 203

Emergent Literacy and Language Diversity 203

Languages and Emergent Literacy 204

Guidelines: Supporting Language and Promoting

Literacy 204

Bilingual Emergent Literacy 205

Diversity in Language Development 205

Dual-Language Development 205

Second-Language Learning 206

Benefits of Bilingualism 206

Language Loss 207

Signed Languages 208

What Is Involved in Being Bilingual? 209

Contextualized and Academic Language 210

Guidelines: Promoting Language Learning 211

Dialect Differences in the Classroom 212

Dialects 212

Dialects and Pronunciation 212

Dialects and Teaching 213

Genderlects 213

Teaching Immigrant Students 213

Immigrants and Refugees 214

Classrooms Today 215

Four Student Profiles 215

Generation 1.5: Students in Two Worlds 216

Teaching Students Who Are English Language Learners 217

Two Approaches to English Language Learning 218

Research on Bilingual Education 218

Bilingualism for All: Two-Way Immersion 218

Point/Counterpoint: What Is the Best Way to Teach Students

Who Are ELLs? 219

Sheltered Instruction 221

Affective and Emotional/Social Considerations 223

Guidelines: Providing Emotional Support and Increasing Self-Esteem for Students Who Are ELLs 224

Working with Families: Using the Tools of the Culture 225
Funds of Knowledge and Welcome Centers 225

Student-Led Conferences 225

Guidelines: Family and Community Partnerships 226

Special Challenges: Students Who Are English Language Learners with Disabilities and Special Gifts 226

Students Who Are English Language Learners with Disabilities 227

Reaching Every Student: Recognizing Giftedness in Bilingual Students 227

Summary 229

Key Terms 231

Teachers' Casebook—Cultures Clash in the Classroom:

What Would They Do? 232

Culture and Diversity 234

Teachers' Casebook—White Girls Club: What Would You Do? 234

Overview and Objectives 235

Today's Diverse Classrooms 236

American Cultural Diversity 236

Meet Four More Students 237

Cautions: Interpreting Cultural Differences 239

Cultural Conflicts and Compatibilities 240

Dangers in Stereotyping 240

Economic and Social Class Differences 240

Social Class and Socioeconomic Status 241

Extreme Poverty: Homeless and Highly Mobile
Students 241

Poverty and School Achievement 241

Health, Environment, and Stress 244

Low Expectations—Low Academic Self-Concept 244

Peer Influences and Resistance Cultures 244

Home Environment and Resources 245

Summer Setbacks 245

Tracking: Poor Teaching 245

Point/Counterpoint: Is Tracking an Effective Strategy? 246

Guidelines: Teaching Students Who Live

in Poverty 247

Ethnicity and Race in Teaching and Learning 247

Terms: Ethnicity and Race 247

Ethnic and Racial Differences in School

Achievement 248

The Legacy of Discrimination 250

What Is Prejudice? 251

The Development of Prejudice 251

Continuing Discrimination 252

Stereotype Threat 253

Who Is Affected by Stereotype Threat? 253

Short-Term Effects: Test Performance 254

Long-Term Effects: Disidentification 255

Combating Stereotype Threat 255

Gender in Teaching and Learning 256

Sex and Gender 256

Sexual Orientation 256

Gender Roles 258

Gender Bias in Curriculum Materials 259

Gender Bias in Teaching 259

Guidelines: Avoiding Gender Bias in Teaching 260

Multicultural Education: Creating Culturally Compatible
Classrooms 261

Culturally Relevant Pedagogy 261

Fostering Resilience 263

Resilient Students 263

Resilient Classrooms 263

Self-Agency Strand 264

Relationship Strand 265

Guidelines: Family and Community Partnerships 265

Diversity in Learning 266

Social Organization 266

Cultural Values and Learning Preferences 266

Cautions (Again) About Learning Styles Research 267

Sociolinguistics 267

Sources of Misunderstandings 267

Lessons for Teachers: Teaching Every Student 268

Know Your Students 268

Respect Your Students 268

Teach Your Students 268

Guidelines: Culturally Relevant Teaching 269

Summary 270

Key Terms 272

Teachers' Casebook-White Girls Club: What Would They Do? 273

PART II: LEARNING AND MOTIVATION

7 Behavioral Views of Learning 276

Teachers' Casebook—Sick of Class: What Would You Do? 276

Overview and Objectives 276

Understanding Learning 278

Neuroscience of Behavioral Learning 278

Learning Is Not Always What It Seems 279

Early Explanations of Learning: Contiguity and Classical
Conditioning 280

Guidelines: Applying Classical Conditioning 281

Operant Conditioning: Trying New Responses 282

Types of Consequences 282

Reinforcement 283

Punishment 284

Reinforcement Schedules 284

Extinction 286

Antecedents and Behavior Change 286

Effective Instruction Delivery 287

Cueing 287

Prompting 287

Putting It All Together to Apply Operant Conditioning:
Applied Behavior Analysis 288

Methods for Encouraging Behaviors 289

Reinforcing with Teacher Attention 289

Selecting Reinforcers: The Premack Principle 289

Guidelines: Applying Operant Conditioning:

Using Praise Appropriately 290

Shaping 291

Guidelines: Applying Operant Conditioning:

Encouraging Positive Behaviors 292

Positive Practice 292

Contingency Contracts, Token Reinforcement, and Group

Consequences 292

Contingency Contracts 293

Token Reinforcement Systems 294

Group Consequences 294

Handling Undesirable Behavior 295

Negative Reinforcement 296

Reprimands 296

Response Cost 296

Social Isolation 297

Some Cautions About Punishment 297

Reaching Every Student: Severe Behavior Problems 297

Guidelines: Applying Operant Conditioning: Using Punishment 298

Contemporary Applications: Functional Behavioral Assessment,
Positive Behavior Supports, and Self-Management 299

Discovering the "Why": Functional Behavioral

Assessments 300

Positive Behavior Supports 301

Self-Management 302

Goal Setting 302

Monitoring and Evaluating Progress 303

Self-Reinforcement 303

Guidelines: Family and Community Partnerships—Applying

Operant Conditioning: Student Self-Management 304

Challenges, Cautions, and Criticisms 304

Beyond Behaviorism: Bandura's Challenge and Observational

Learning 304

Enactive and Observational Learning 304

Learning and Performance 305

Criticisms of Behavioral Methods 305

Point/Counterpoint: Should Students Be Rewarded for Learning? 306

Ethical Issues 307

Goals 307

Strategies 307

Behavioral Approaches: Lessons for Teachers 308

Summary 308 Key Terms 310 Teachers' Casebook-Sick of Class: What Would They Do? 311

Cognitive Views of Learning 314

Teachers' Casebook—Remembering the Basics: What Would You Do? 314

Overview and Objectives 315

Elements of the Cognitive Perspective 316

Comparing Cognitive and Behavioral Views 316

Views of Learning 316

Goals 316

The Brain and Cognitive Learning 316

The Importance of Knowledge in Cognition 317

General and Specific Knowledge 317

Cognitive Views of Memory 318

Sensory Memory 320

Capacity, Duration, and Contents of Sensory Memory 320

Perception 320

The Role of Attention 321

Attention and Multitasking 321

Attention and Teaching 322

Guidelines: Gaining and Maintaining Attention 323

Working Memory 323

The Central Executive 324

The Phonological Loop 324

The Visuospatial Sketchpad 325

The Episodic Buffer 325

The Duration and Contents of Working Memory 326

Cognitive Load and Retaining Information 326

Three Kinds of Cognitive Load 326

Retaining Information in Working Memory 326

Levels of Processing Theory 327

Forgetting 328

Individual Differences in Working Memory 328

Developmental Differences 328

Individual Differences 329

Long-Term Memory 330

Capacity, Duration, and Contents of Long-Term

Memory 330

Contents: Declarative, Procedural, and Self-Regulatory

Knowledge 330

Explicit Memories: Semantic and Episodic 332

Propositions and Propositional Networks 332

Images 332

Two Are Better than One: Words and Images 332

Concepts 333

Prototypes, Exemplars, and Theory-Based Categories 333

Schemas 334

Episodic Memory 335

Implicit Memories 335

Retrieving Information in Long-Term Memory 336

Spreading Activation 337

Reconstruction 337

Forgetting and Long-Term Memory 337

Individual Differences in Long-Term Memory 337

Teaching for Deep, Long-Lasting Knowledge:

Basic Principles and Applications 338

Constructing Declarative Knowledge: Making Meaningful Connections 338

Elaboration, Organization, Imagery, and Context 338

Guidelines: Family and Community Partnerships—Organizing

Learning 339

Imagery 339

Reaching Every Student: Make it Meaningful 341

Mnemonics 342

Rote Memorization 342

Development of Procedural Knowledge 343

Point/Counterpoint: What's Wrong

with Memorizing? 344

Automated Basic Skills 345

Domain-Specific Strategies 345

Guidelines: Helping Students Understand and

Remember 346

Summary 346

Key Terms 348

Teachers' Casebook—Remembering the Basics: What Would

They Do? 350

Complex Cognitive Processes 352

Teachers' Casebook—Uncritical Thinking: What Would You Do? 352 Overview and Objectives 353

Metacognition 354

Metacognitive Knowledge and Regulation 354

Individual Differences in Metacognition 355

Lessons for Teachers: Developing Metacognition 355

Metacognitive Development for Younger Students 355

Metacognitive Development for Secondary and College

Students (Like You) 357

Learning Strategies 357

Being Strategic About Learning 357

Deciding What Is Important 358

Summaries 358

Underlining and Highlighting 359

Taking Notes 359

Visual Tools for Organizing 360

Reading Strategies 362

Applying Learning Strategies 363

Appropriate Tasks 363

Valuing Learning 363

Effort and Efficacy 363

Reaching Every Student: Learning Strategies for Struggling Students 363

Guidelines: Becoming an Expert Student 364

Problem Solving 365

Identifying: Problem Finding 366

Defining Goals and Representing the Problem 367

Focusing Attention on What Is Relevant 367

Understanding the Words 367

Understanding the Whole Problem 368

Translation and Schema Training: Direct Instruction in

Schemas 368

Translation and Schema Training:

Worked Examples 369

The Results of Problem Representation 370

Searching for Possible Solution Strategies 371

Algorithms 371

Heuristics 371

Anticipating, Acting, and Looking Back 372

Factors That Hinder Problem Solving 372

Some Problems with Heuristics 373

Guidelines: Applying Problem Solving 374

Expert Knowledge and Problem Solving 374

Knowing What Is Important 374

Memory for Patterns and Organization 375

Procedural Knowledge 375

Planning and Monitoring 375

Creativity: What It Is and Why It Matters 376

Assessing Creativity 376

OK, But So What: Why Does Creativity Matter? 376

What Are the Sources of Creativity? 377

Creativity and Cognition 378

Creativity and Diversity 378

Creativity in the Classroom 378

The Big C: Revolutionary Innovation 379

Guidelines: Applying and Encouraging

Creativity 380

Critical Thinking and Argumentation 381

One Model of Critical Thinking: Paul and Elder 381

Applying Critical Thinking in Specific Subjects 382

Argumentation 383

Point/Counterpoint: Should Schools Teach Critical Thinking and Problem Solving? 384

Teaching for Transfer 385

The Many Views of Transfer 385

Teaching for Positive Transfer 386

What Is Worth Learning? 386

How Can Teachers Help? 387

Stages of Transfer for Strategies 387

Guidelines: Family and Community Partnerships—Promoting Transfer 388

Summary 388 Key Terms 390

Teachers' Casebook—Uncritical Thinking: What Would

They Do? 391

The Learning Sciences and Constructivism 394

Teachers' Casebook—Learning to Cooperate: What Would You Do? 394

Overview and Objectives 395

The Learning Sciences 396

What Are the Learning Sciences? 396

Basic Assumptions of the Learning Sciences 396

Embodied Cognition 397

Cognitive and Social Constructivism 398

Constructivist Views of Learning 399

Psychological/Individual/Cognitive Constructivism 399

Vygotsky's Social Constructivism 400

Constructionism 401

How Is Knowledge Constructed? 401

Knowledge: Situated or General? 402

Common Elements of Constructivist Student-Centered Teaching 403

Complex Learning Environments and Authentic Tasks 403

Social Negotiation 404

Multiple Perspectives and Representations of Content 404

Understanding the Knowledge Construction Process 404 Student Ownership of Learning 404

Applying Constructivist Perspectives 404

Inquiry and Problem-Based Learning 405

Examples of Inquiry 406

Problem-Based Learning 406

Research on Inquiry and Problem-Based Learning 408

Cognitive Apprenticeships and Reciprocal Teaching 408

Point/Counterpoint: Are Inquiry and Problem-Based Learning Effective Teaching Approaches? 409

Cognitive Apprenticeships in Reading: Reciprocal Teaching 411

Applying Reciprocal Teaching 411

Collaboration and Cooperation 411

Collaboration, Group Work, and Cooperative Learning 412

Beyond Groups to Cooperation 412

What Can Go Wrong: Misuses of Group Learning 413

Tasks for Cooperative Learning 413

Highly Structured, Review, and Skill-Building Tasks 414

III-Structured, Conceptual, and Problem-Solving Tasks 414

Social Skills and Communication Tasks 414

Preparing Students for Cooperative Learning 414

Setting Up Cooperative Groups 415

Giving and Receiving Explanations 415

Assigning Roles 416

Designs for Cooperation 417

Reciprocal Questioning 417

Jigsaw 418

Constructive/Structured Controversies 418

Reaching Every Student: Using Cooperative Learning Wisely 419

Guidelines: Using Cooperative Learning 420

Dilemmas of Constructivist Practice 420

Service Learning 421

Guidelines: Family and Community Partnerships—Service Learning 422

Learning in a Digital World 423

Technology and Learning 423

Technology-Rich Environments 424

Virtual Learning Environments 424

Personal Learning Environments 425

Immersive Virtual Learning Environments 425

Games 426

Developmentally Appropriate Computer Activities for Young
Children 426

Computers and Older Students 427

Computational Thinking and Coding 427

Guidelines: Using Computers 428

Media/Digital Literacy 429

Guidelines: Supporting the Development of Media Literacy 430

Summary 430

Key Terms 432

Teachers' Casebook—Learning to Cooperate: What Would

They Do? 433

II Social Cognitive Views of Learning and Motivation 436

Teachers' Casebook—Failure to Self-Regulate: What Would You Do? 436

Overview and Objectives 437

Social Cognitive Theory 438

A Self-Directed Life: Albert Bandura 438

Beyond Behaviorism 438

Triarchic Reciprocal Causality 439

Modeling: Learning by Observing Others 440

Elements of Observational Learning 441

Attention 441

Retention 442

Production 442

Motivation and Reinforcement 442

Observational Learning in Teaching 443

Directing Attention 443

Fine Tuning Already-Learned Behaviors 443

Strengthening or Weakening Inhibitions 443

Teaching New Behaviors 443

Arousing Emotion 443

Guidelines: Using Observational Learning 444

Self-Efficacy and Agency 444

Self-Efficacy, Self-Concept, and Self-Esteem 445

Sources of Self-Efficacy 445

Self-Efficacy in Learning and Teaching 446

Guidelines: Encouraging Self-Efficacy 447

Teachers' Sense of Efficacy 448

Self-Regulated Learning 448

Point/Counterpoint: Are High Levels of Teacher Efficacy Beneficial? 449

What Influences Self-Regulation? 450

Knowledge 450

Motivation 450

Volition 451

Development of Self-Regulation 451

Models of Self-Regulated Learning and Agency 451

An Individual Example of Self-Regulated Learning 453

Two Classrooms 454

Writing 454

Math Problem Solving 454

Technology and Self-Regulation 455

Reaching Every Student: Families

and Self-Regulation 455

Another Approach to Self-Regulation: Cognitive Behavior Modification 455

Guidelines: Family and Community Partnerships 456

Emotional Self-Regulation 457

Guidelines: Encouraging Emotional Self-Regulation 458

Teaching Toward Self-Efficacy and Self-Regulated Learning 459

Complex Tasks 460

Control 460

Self-Evaluation 461

Collaboration 461

Bringing It All Together: Theories of Learning 462

Summary 463

Key Terms 465

Teachers' Casebook—Failure to Self-Regulate: What Would They Do? 466

Motivation in Learning and Teaching 468

Teachers' Casebook—Motivating Students When Resources
Are Thin: What Would You Do? 468

Overview and Objectives 469

What Is Motivation? 470

Meeting Some Students 470

Intrinsic and Extrinsic Motivation 471

Five General Approaches to Motivation 472

To demonal approach to mountain the

Behavioral Approaches to Motivation 472

Humanistic Approaches to Motivation 472

Cognitive Approaches to Motivation 473

Social Cognitive Theories 473
Sociocultural Conceptions of Motivation 473

Needs 474

Maslow's Hierarchy of Needs 474

Self-Determination: Need for Competence, Autonomy, and Relatedness 475

Self-Determination in the Classroom 476

Information and Control 476

Guidelines: Supporting Self-Determination and Autonomy 477

The Need for Relatedness 477

Needs: Lessons for Teachers 478

Goal Orientations 478

Types of Goals and Goal Orientations 478

Four Achievement Goal Orientations in School 479

Wait—Are Performance Goals Always Bad? 480

Beyond Mastery and Performance 481

Goals in Social Context 481

Feedback, Goal Framing, and Goal Acceptance 482

Goals: Lessons for Teachers 482

Beliefs and Self-Perceptions 482

Beliefs About Knowing: Epistemological Beliefs 482

Beliefs About Ability 483

Beliefs About Causes and Control: Attribution Theory 484

Attributions in the Classroom 485

Teacher Actions and Student Attributions 485

Beliefs About Self-Worth 486

Learned Helplessness 486

Self-Worth 486

Guidelines: Encouraging Self-Worth 488

Beliefs and Attributions: Lessons for Teachers 488

Interests, Curiosity, Emotions, and Anxiety 488

Tapping Interests 489

Catching and Holding Interests 489

Point/Counterpoint: Does Making Learning Fun Make for

Good Learning? 490

Curiosity: Novelty and Complexity 491

Flow 491

Emotions and Anxiety 491

Neuroscience and Emotion 491

Guidelines: Building on Students' Interests and Curiosity 492

Achievement Emotions 493

Arousal and Anxiety 493

Anxiety in the Classroom 494

How Does Anxiety Interfere with Achievement? 494

Reaching Every Student: Coping with Anxiety 495

Guidelines: Coping with Anxiety 496

Curiosity, Interests, and Emotions: Lessons for Teachers 496

Motivation to Learn in School: On Target 497

Tasks for Learning 498

Task Value 498

Beyond Task Value to Genuine Appreciation 498

Authentic Tasks 498

Supporting Autonomy and Recognizing

Accomplishment 499

Supporting Choices 499

Recognizing Accomplishment 499

Grouping, Evaluation, and Time 500

Grouping and Goal Structures 500

Evaluation 500

Time 501

Putting It All Together 501

Diversity in Motivation 503

Lessons for Teachers: Strategies to Encourage

Motivation 503

Can I Do It? Building Confidence and Positive

Expectations 504

Do I Want to Do It? Seeing the Value of Learning 504

What Do I Need to Do to Succeed? Staying Focused on the Task 505

Do I Belong in This Classroom? 505

Guidelines: Motivation to Learn: Family and Community

Partnerships 506

Summary 506

Key Terms 509

Teachers' Casebook—Motivating Students When Resources

Are Thin: What Would They Do? 510

PART III: TEACHING AND ASSESSING

Creating Learning Environments 512

Teachers' Casebook—Bullies and Victims: What Would You Do? 512

Overview and Objectives 513

The What and Why of Classroom Management 514

The Basic Task: Gain Their Cooperation 516

The Goals of Classroom Management 517

Access to Learning 517

More Time for Learning 517

Management for Self-Management 518

Creating a Positive Learning Environment 519

Some Research Results 519

Routines and Rules Required 520

Routines and Procedures 520

Rules 520

Rules for Elementary School 520

Guidelines: Establishing Class Routines 521

Rules for Secondary School 522

Consequences 522

Who Sets the Rules and Consequences 522

Planning Spaces for Learning 523

Personal Territories 524

Interest Areas 524

Guidelines: Designing Learning Spaces 525

Getting Started: The First Weeks of Class 525

| 24 33112113 |
|---|
| Effective Managers for Elementary Students 525 |
| Effective Managers for Secondary Students 527 |
| Maintaining a Good Environment for Learning 527 |
| Encouraging Engagement 527 |
| Guidelines: Keeping Students Engaged 528 |
| Prevention Is the Best Medicine 528 |
| Withitness 529 |
| Overlapping and Group Focus 529 |
| Movement Management 529 |
| Student Social Skills as Prevention 529 |
| Caring Relationships: Connections with School 530 |
| School Connections 530 |
| Creating Communities of Care for |
| Adolescents 530 |
| Guidelines: Creating Caring Relationships 531 |
| Dealing with Discipline Problems 532 |
| Stopping Problems Quickly 532 |
| Guidelines: Imposing Penalties 533 |
| Bullying and Cyberbullying 534 |
| Victims 534 |
| Why Do Students Bully? 536 |
| Bullying and Teasing 536 |
| Changing Attributions 537 |
| Cyberbullying 537 |
| Special Problems with High School |
| Students 538 |
| Guidelines: Handling Potentially Explosive |
| Situations 539 |
| Point/Counterpoint: Is Zero Tolerance |
| a Good Idea? 540 |
| The Need for Communication 541 |
| Message Sent—Message Received 541 |
| Diagnosis: Whose Problem Is It? 542 |
| Counseling: The Student's Problem 542 |
| Confrontation and Assertive Discipline 543 |
| "I" Messages 543 |
| Assertive Discipline 543 |
| Confrontations and Negotiations 544 |
| Reaching Every Student: Peer Mediation |
| and Restorative Justice 544 Peer Mediation 545 |
| Peer Mediation 545 Restorative Justice 545 |
| The 4 RS 545 |
| Research on Management Approaches 546 |
| Integrating Ideas 546 |
| Guidelines: Family and Community |
| Partnerships—Classroom Management 546 |
| Connecting with Families About Classroom |
| Management 547 |
| Diversity: Culturally Responsive Management 547 |
| Summary 548 |
| Key Terms 550 |

Teachers' Casebook—Bullies and Victims: What Would

They Do? 552

4 Teaching Every Student 554

Teachers' Casebook—Reaching and Teaching Every Student: What Would You Do? 554

Overview and Objectives 555

Research on Teaching 556

Characteristics of Effective Teachers 556

Clarity and Organization 556

Warmth and Enthusiasm 556

Knowledge for Teaching 557

Recent Research on Teaching 557

The First Step: Planning 559

Research on Planning 559

Objectives for Learning 560

An Example of Standards: The Common Core 560

An Example of Standards for Teachers: Technology 561

Classrooms: Instructional Objectives 562

Mager: Start with the Specific 562

Gronlund: Start with the General 562

Flexible and Creative Plans—Using Taxonomies 563

The Cognitive Domain 563

The Affective Domain 564

The Psychomotor Domain 564

Guidelines: Using Instructional Objectives 565

Planning from a Constructivist Perspective 565

Teaching Approaches 566

Direct Instruction 566

Rosenshine's Six Teaching Functions 567

Advance Organizers 567

Why Does Direct Instruction Work? 568

Evaluating Direct Instruction 568

Seatwork and Homework 569

Seatwork 569

Guidelines: Effective Direct Instruction 570

Homework 571

Questioning, Discussion, and Dialogue 571

Point/Counterpoint: Is Homework a Valuable Use of Time? 572

Guidelines: Family and Community Partnerships—Homework 573

Kinds of Questions 573

Fitting the Questions to the Students 573

Responding to Student Answers 575

Group Discussion 575

Fitting Teaching to Your Goals 576

Putting It All Together: Understanding by Design 576

Guidelines: Productive Group Discussions 577

Differentiated Instruction and Adaptive Teaching 579

Within-Class and Flexible Grouping 579

The Problems with Ability Grouping 579

Flexible Grouping 579

Guidelines: Using Flexible Grouping 580

Adaptive Teaching 580

Reaching Every Student: Differentiated Instruction in Inclusive

Classrooms 581

Technology and Differentiation 583

Guidelines: Teachers as Mentors 584

Mentoring Students as a Way of Differentiating Teaching 585

Teacher Expectations 585

Two Kinds of Expectation Effects 585

Sources of Expectations 586

Do Teachers' Expectations Really Affect Students'

Achievement? 586

Instructional Strategies 587

Teacher-Student Interactions 587

Lessons for Teachers: Communicating Appropriate

Expectations 587

Guidelines: Avoiding the Negative Effects of Teacher

Expectations 588

Summary 589

Key Terms 591

Teachers' Casebook—Reaching and Teaching Every Student:

What Would They Do? 592

15 Classroom Assessment, Grading, and Standardized Testing 594

Teachers' Casebook—Giving Meaningful Grades: What Would You Do? 594

Overview and Objectives 595

Basics of Assessment 596

Measurement and Assessment 596

Formative and Summative Assessment 596

Norm-Referenced Test Interpretations 597

Criterion-Referenced Test Interpretations 598

Assessing the Assessments: Reliability and Validity 599

Reliability of Test Scores 599

Error in Scores 599

Confidence Interval 599

Validity 600

Absence of Bias 600

Classroom Assessment: Testing 601

Using the Tests from Textbooks 602

Objective Testing 602

Using Multiple-Choice Tests 603

Writing Multiple-Choice Questions 603

Essay Testing 603

Constructing Essay Tests 603

Guidelines: Writing Objective Test Items 604

Evaluating Essays 604

The Value of Traditional Testing 605

Criticisms of Traditional Tests 605

Authentic Classroom Assessments 606

Portfolios and Exhibitions 606

Portfolios 607

Exhibitions 607

Guidelines: Creating Portfolios 608

Evaluating Portfolios and Performances 608

Scoring Rubrics 608

Guidelines: Developing a Rubric 609

Reliability, Validity, Generalizability 610

Diversity and Bias in Performance Assessment 611

Informal Assessments 611

Journals 611

Involving Students in Assessments 612

Grading 613

Norm-Referenced versus Criterion-Referenced

Grading 613

Effects of Grading on Students 614

The Value of Failing? 615

Retention in Grade 615

Grades and Motivation 615

Point/Counterpoint: Should Children Be Held Back? 616

Beyond Grading: Communicating with Families 617

Guidelines: Using Any Grading System 618

Standardized Testing 619

Types of Scores 619

Measurements of Central Tendency and Standard

Deviation 619

The Normal Distribution 620

Percentile Rank Scores 621

Grade-Equivalent Scores 621

Standard Scores 621

Interpreting Standardized Test Reports 623

Discussing Test Results with Families 624

Accountability and High-Stakes Testing 624

Guidelines: Family and Community Partnerships—

Conferences and Explaining Test Results 625

Making Decisions 625

What Do Teachers Think? 626

Documented Problems with High-Stakes Testing 626

Using High-Stakes Testing Well 627

Guidelines: Preparing Yourself and Your Students for Testing 628

Reaching Every Student: Helping Students with Disabilities

Prepare for High-Stakes Tests 629

Current Directions: Value-Added and PARCC 629

Value-Added Measures 629

PARCC Tests 630

Lessons for Teachers: Quality Assessment 630

Summary 631

Key Terms 633

Teachers' Casebook—Giving Meaningful Grades: What Would

They Do? 634

Appendix 637

Glossary 655

References 665

Name Index 701

Subject Index 711

Special Features

TEACHERS' CASEBOOK: WHAT WOULD YOU DO?

Leaving No Student Behind 28

Leaving No Student Behind 53

Symbols and Cymbals 56

Symbols and Cymbals 96

Mean Girls 98

Mean Girls 142

Including Every Student 144

Including Every Student 194

Cultures Clash in the Classroom 196

Cultures Clash in the Classroom 232

White Girls Club 234

White Girls Club 273

Sick of Class 276

Sick of Class 312

Remembering the Basics 314

Remembering the Basics 350

Uncritical Thinking 352

Uncritical Thinking 392

Learning to Cooperate 394

Learning to Cooperate 434

Failure to Self-Regulate 436

Failure to Self-Regulate 466

Motivating Students When Resources Are Thin 468

Motivating Students When Resources Are Thin 511

Bullies and Victims 512

Bullies and Victims 552

Reaching and Teaching Every Student 554

Reaching and Teaching Every Student 592

Giving Meaningful Grades 594

Giving Meaningful Grades 634

GUIDELINES

Family and Community Partnerships—Helping Families Care for Preoperational Children 75

Teaching the Concrete-Operational Child 77

Helping Students to Use Formal Operations 79

Applying Vygotsky's Ideas in Teaching 92

Dealing with Physical Differences in the Classroom 102

Supporting Positive Body Images in Adolescents 106

Family and Community Partnerships—Connecting with

Families 110

Helping Children of Divorce 111

Dealing with Aggression and Encouraging Cooperation 116

Encouraging Initiative and Industry 122

Supporting Identity Formation 124

Interpreting IQ Scores 155

Family and Community Partnerships—Productive

Conferences 164

Disciplining Students with Emotional Problems 175

Teaching Students with Intellectual Disabilities 178

Supporting Language and Promoting Literacy 204

Promoting Language Learning 211

Providing Emotional Support and Increasing Self-Esteem

for Students Who Are ELLs 224

Family and Community Partnerships—Welcoming all

Families 226

Teaching Students Who Live in Poverty 247

Avoiding Gender Bias in Teaching 260

Family and Community Partnerships 265

Culturally Relevant Teaching 269

Applying Classical Conditioning 281

Applying Operant Conditioning: Using Praise

Appropriately 290

Applying Operant Conditioning: Encouraging Positive

Behaviors 292

Applying Operant Conditioning: Using Punishment 298

Family and Community Partnerships—Applying Operant

Conditioning: Student Self-Management 304

Gaining and Maintaining Attention 323

Family and Community Partnerships—Organizing Learning 339

Helping Students Understand and Remember 346

Becoming an Expert Student 364

Applying Problem Solving 374

Applying and Encouraging Creativity 380

Family and Community Partnerships—Promoting Transfer 388

Using Cooperative Learning 420

Family and Community Partnerships—Service Learning 422

Using Computers 428

Supporting the Development of Media Literacy 430

Using Observational Learning 444

Encouraging Self-Efficacy 447

Family and Community Partnerships—Supporting

Self-Regulation at Home and in School 456

Encouraging Emotional Self-Regulation 458

Supporting Self-Determination and Autonomy 477

Encouraging Self-Worth 488

Building on Students' Interests and Curiosity 492

Coping with Anxiety 496

Motivation to Learn: Family and Community Partnerships—

Understand family goals for children 506

Establishing Class Routines 521

Designing Learning Spaces 525

Keeping Students Engaged 528

Creating Caring Relationships 531

Imposing Penalties 533

Handling Potentially Explosive Situations 539

Family and Community Partnerships—Classroom

Management 546

Using Instructional Objectives 565

Effective Direct Instruction 570

Family and Community Partnerships—Homework 573

Productive Group Discussions 577

Using Flexible Grouping 580

Teachers as Mentors 584

Avoiding the Negative Effects of Teacher Expectations 588

Writing Objective Test Items 604

Creating Portfolios 608

Developing a Rubric 609

Using Any Grading System 618

Family and Community Partnerships—Conferences

and Explaining Test Results 625

Preparing Yourself and Your Students for Testing 628

POINT/COUNTERPOINT

What Kind of Research Should Guide Education? 45

Brain-Based Education 66

What Should Schools Do to Encourage Students'

Self-Esteem? 130

Pills or Skills for Children with ADHD? 170

What Is the Best Way to Teach Students Who Are ELLs? 219

Is Tracking an Effective Strategy? 246

Should Students Be Rewarded for Learning? 306

What's Wrong with Memorizing? 344

Should Schools Teach Critical Thinking and Problem

Solving? 384

Are Inquiry and Problem-Based Learning Effective Teaching

Approaches? 409

Are High Levels of Teacher Efficacy Beneficial? 449

Does Making Learning Fun Make for Good Learning? 490

Is Zero Tolerance a Good Idea? 540

Is Homework a Valuable Use of Time? 572

Should Children Be Held Back? 616