contents

Expert Consultants xiii

Making Connections . . . From My Classroom to *Children* to You xvii

Prologue 2

SECTION 1 THE NATURE OF CHILDREN'S DEVELOPMENT 4

CHAPTER 1
Introduction 6

Why Is Caring for Children Important? 8
- The Importance of Studying Children's Development 8
- Improving the Lives of Children 8
- **CONNECTING WITH CAREERS** *Luis Vargas, Clinical Child Psychologist 9*
- **CONNECTING WITH DIVERSITY** *Gender, Families, and Children's Development 12*

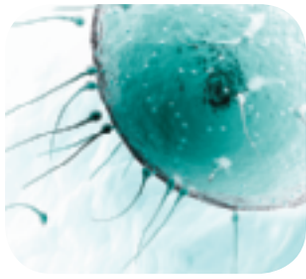
What Characterizes Development? 14
- Biological, Cognitive, and Socioemotional Processes 15
- Periods of Development 15
- Age and Cohort Effects 16
- Issues in Development 17

How Is Child Development a Science? 20
- The Importance of Research 20
- Theories of Child Development 21
- **CARING CONNECTIONS** *Strategies for Parenting, Educating, and Interacting with Children Based on Erikson's Theory 24*
- Research Methods for Collecting Data 32
- Research Designs 35
- Research Challenges 38
- **CONNECTING WITH RESEARCH** *Why Are Research Journals Important in the Field of Child Development? 39*
- **CONNECTING WITH CAREERS** *Pam Reid, Educational and Developmental Psychologist 41*

Reach Your Learning Goals 43

APPENDIX: CAREERS IN CHILDREN'S DEVELOPMENT 46

SECTION 2 BEGINNINGS 52



CHAPTER 2
Biological Beginnings 54

What Is the Evolutionary Perspective? 56
- Natural Selection and Adaptive Behavior 56
- Evolutionary Psychology 57

What Are the Genetic Foundations of Development? 59
- The Collaborative Gene 59
- Genes and Chromosomes 60
- Genetic Principles 62
- Chromosomal and Gene-Linked Abnormalities 63
- **CONNECTING WITH CAREERS** *Holly Ishmael, Genetic Counselor 67*

What Are Some Reproductive Challenges and Choices? 68
- Prenatal Diagnostic Tests 68
- Infertility and Reproductive Technology 70
- Adoption 70
- **CONNECTING WITH RESEARCH** *Are There Developmental Outcomes in Adolescence of In Vitro Fertilization? 71*
- **CONNECTING WITH DIVERSITY** *The Increased Diversity of Adopted Children and Adoptive Parents 72*
- **CARING CONNECTIONS** *Parenting Adopted Children 73*

How Do Heredity and Environment Interact? The Nature-Nurture Debate 74
- Behavior Genetics 74
- Heredity-Environment Correlations 75
- Shared and Nonshared Environmental Experiences 76
- The Epigenetic View and Gene × Environment (G × E) Interaction 77
- Conclusions About Heredity-Environment Interaction 78

Reach Your Learning Goals 79

CHAPTER 3
Prenatal Development 83

What Is the Course of Prenatal Development? 85
The Germinal Period 85
The Embryonic Period 85
The Fetal Period 87
The Brain 89

What Are Some Important Strategies That Enhance the Expectant Mother's Health and Prenatal Care? 90
The Expectant Mother's Nutrition and Weight Gain 90
Exercise 91
Prenatal Care 92
CARING CONNECTIONS *Exercise Guidelines for Expectant Mothers 93*
CONNECTING WITH CAREERS *Rachel Thompson, Obstetrician/Gynecologist 94*
CONNECTING WITH DIVERSITY *Cultural Beliefs About Pregnancy 96*

What Are Some Potential Hazards to Prenatal Development? 97
Some General Principles 97
Prescription and Nonprescription Drugs 98
Psychoactive Drugs 99
CONNECTING WITH RESEARCH *Is Expectant Mothers' Cigarette Smoking Related to Cigarette Smoking by Their Adolescent Offspring? 101*
Incompatible Blood Types 102
Environmental Hazards 102
Maternal Diseases 102
Other Parental Factors 104

Reach Your Learning Goals 108

CHAPTER 4
Birth 111

What Happens During the Birth Process? 113
Stages of the Birth Process 113
Childbirth Setting and Attendants 114
Methods of Childbirth 115
CONNECTING WITH CAREERS *Linda Pugh, Perinatal Nurse 116*
CARING CONNECTIONS *From Waterbirth to Music Therapy 117*
The Transition from Fetus to Newborn 118

What Are Some Measures of Neonatal Health and Responsiveness? 118

How Do Low Birth Weight and Preterm Infants Develop? 120
Preterm and Small for Date Infants 120
CONNECTING WITH DIVERSITY *Incidence and Causes of Low Birth Weight Around the World 121*
Consequences of Preterm Birth and Low Birth Weight 122
Nurturing Preterm Infants 123
CONNECTING WITH RESEARCH *How Does Massage Therapy Benefit the Health and Well-Being of Babies? 123*

What Happens During the Postpartum Period? 125
Physical Adjustments 125
Emotional and Psychological Adjustments 126
CONNECTING WITH CAREERS *Diane Sanford, Clinical Psychologist and Postpartum Expert 127*
Bonding 127

Reach Your Learning Goals 129

SECTION 3 INFANCY 132

CHAPTER 5
Physical Development in Infancy 134

How Do Infants Grow and Develop Physically? 136
Patterns of Growth 136
Height and Weight 137
The Brain 137
Sleep 141
Nutrition 144
Health 147
CARING CONNECTIONS *Improving the Nutrition of Infants and Young Children Living in Low-Income Families 148*
CONNECTING WITH CAREERS *T. Berry Brazelton, Pediatrician 148*

How Do Infants Develop Motor Skills? 149
The Dynamic Systems View 149
Reflexes 150
Gross Motor Skills 152
Fine Motor Skills 154
CONNECTING WITH DIVERSITY *Cultural Variations in Guiding Infants' Motor Development 155*

How Can Infants' Sensory and Perceptual Development Be Characterized? 156
What Are Sensation and Perception? 157
The Ecological View 157
Visual Perception 157
CONNECTING WITH RESEARCH *How Can the Newborn's Perception Be Studied? 158*
Other Senses 162

Intermodal Perception 164
Nature, Nurture, and Perceptual Development 164
Perceptual-Motor Coupling 165
Reach Your Learning Goals 167

CHAPTER 6
Cognitive Development in Infancy 170

What Is Piaget's Theory of Infant Development? 172
Cognitive Processes 172
The Sensorimotor Stage 174
Evaluating Piaget's Sensorimotor Stage 176
CONNECTING WITH RESEARCH *How Do Researchers Study Infants' Understanding of Object Permanence and Causality? 177*

How Do Infants Learn, Remember, and Conceptualize? 179
Conditioning 180
Attention 180
Memory 182
Imitation 183
Concept Formation 183

How Are Individual Differences in Infancy Assessed, and Do These Assessments Predict Intelligence? 185
CONNECTING WITH CAREERS *Toosje Thyssen Van Beveren, Infant Assessment Specialist 186*
Measures of Infant Development 186
Predicting Intelligence 187

What Is the Nature of Language, and How Does It Develop in Infancy? 188
Defining Language 188
Language's Rule Systems 188
How Language Develops 190
Biological and Environmental Influences 192
CONNECTING WITH DIVERSITY *Language Environment, Poverty, and Language Development 195*
An Interactionist View 196
CARING CONNECTIONS *How Parents Can Facilitate Infants' and Toddlers' Language Development 197*
Reach Your Learning Goals 198

CHAPTER 7
Socioemotional Development in Infancy 202

How Do Emotions and Personality Develop in Infancy? 204
Emotional Development 204
Temperament 208
Personality Development 211
CARING CONNECTIONS *Parenting and the Child's Temperament 212*

How Do Social Orientation/Understanding and Attachment Develop in Infancy? 214
Social Orientation/Understanding 214
Attachment and Its Development 216
Individual Differences in Attachment 218
Developmental Social Neuroscience and Attachment 221

How Do Social Contexts Influence Socioemotional Development in Infancy? 222
The Family 222
Child Care 225
CONNECTING WITH DIVERSITY *Child-Care Policies Around the World 226*
CONNECTING WITH CAREERS *Wanda Mitchell, Child-Care Director 227*
CONNECTING WITH RESEARCH *What Are Some Important Findings in the National Longitudinal Study of Child Care in the United States? 227*
Reach Your Learning Goals 229

SECTION 4 EARLY CHILDHOOD 232

CHAPTER 8
Physical Development in Early Childhood 234

How Does a Young Child's Body and Brain Grow and Change? 236
Height and Weight 236
The Brain 238

How Do Young Children's Motor Skills Develop? 240
Gross and Fine Motor Skills 240
CARING CONNECTIONS *Supporting Young Children's Motor Development 241*
Young Children's Artistic Drawings 242

What Are Some Important Aspects of Young Children's Health? 244
Sleep and Sleep Problems 244
Nutrition 245
Exercise 249
Health, Safety, and Illness 249

CONNECTING WITH RESEARCH *Physical Activity in Young Children Attending Preschools 250*

CONNECTING WITH CAREERS *Barbara Deloin, Pediatric Nurse 253*

CONNECTING WITH DIVERSITY *The State of Illness and Health in the World's Children 254*

Reach Your Learning Goals 255

CHAPTER 9

Cognitive Development in Early Childhood 258

What Are Three Views of the Cognitive Changes That Occur in Early Childhood? 260

Piaget's Preoperational Stage 260
Vygotsky's Theory 263

CARING CONNECTIONS *Tools of the Mind 266*

Information Processing 267

CONNECTING WITH RESEARCH *Can Parents Suggest False Events to Children? 270*

CONNECTING WITH CAREERS *Helen Hadani, Developmental Psychologist, Toy Designer, and LANGO Regional Director 272*

How Do Young Children Develop Language? 275

Understanding Phonology and Morphology 275
Changes in Syntax and Semantics 276
Advances in Pragmatics 276
Young Children's Literacy 277

What Are Some Important Features of Young Children's Education? 278

Variations in Early Childhood Education 278
Educating Young Children Who Are Disadvantaged 280

CONNECTING WITH CAREERS *Yolanda Garcia, Director of Children's Services/Head Start 282*

Controversies in Early Childhood Education 282

CONNECTING WITH DIVERSITY *Early Childhood Education in Japan and Developing Countries 284*

Reach Your Learning Goals 285

CHAPTER 10

Socioemotional Development in Early Childhood 288

What Characterizes Young Children's Emotional and Personality Development? 290

The Self 290
Emotional Development 292
Moral Development 293
Gender 295

What Roles Do Families Play in Young Children's Development? 299

Parenting 299

CONNECTING WITH RESEARCH *Are Marital Conflict, Individual Hostility, and the Use of Physical Punishment Related? 303*

CONNECTING WITH CAREERS *Darla Botkin, Marriage and Family Therapist 303*

Child Maltreatment 304
Sibling Relationships and Birth Order 305
The Changing Family in a Changing Social World 307

CARING CONNECTIONS *Communicating with Children About Divorce 310*

CONNECTING WITH DIVERSITY *Immigration and Ethnic Minority Parenting 312*

How Are Peer Relations, Play, and Television Involved in Young Children's Development? 313

Peer Relations 313
Play 314
Television 316

Reach Your Learning Goals 318

SECTION 5 MIDDLE AND LATE CHILDHOOD 322

CHAPTER 11

Physical Development in Middle and Late Childhood 324

What Changes Take Place in Body Growth, the Brain, and Motor Development? 326

Skeletal and Muscular Systems 326
The Brain 326
Motor Development 328

What Are the Central Issues in Children's Health? 329

Nutrition 329
Exercise and Sports 329

CARING CONNECTIONS *Parents, Coaches, and Children's Sports 331*

Overweight Children 331
Diseases 333

CONNECTING WITH RESEARCH *Heart Smart 335*

CONNECTING WITH CAREERS *Sharon McLeod, Child Life Specialist 336*

Accidents and Injuries 336

What Are the Prevalent Disabilities in Children? 337

Who Are Children with Disabilities? 337

The Range of Disabilities 337

CONNECTING WITH CAREERS *Sharla Peltier, Speech Pathologist 342*

Educational Issues 345

CONNECTING WITH DIVERSITY *Disproportionate Representation of Minority Students in Special Education 347*

Reach Your Learning Goals 348

CHAPTER 12

Cognitive Development in Middle and Late Childhood 352

What Is Piaget's Theory of Cognitive Development in Middle and Late Childhood? 354

Concrete Operational Thought 354

Evaluating Piaget's Concrete Operational Stage 355

Applications to Education 356

What Is the Nature of Children's Information Processing? 357

Memory 357

Thinking 359

CARING CONNECTIONS *Strategies for Increasing Children's Creative Thinking 361*

Metacognition 362

How Can Children's Intelligence Be Described? 363

Intelligence and Its Assessment 364

Types of Intelligence 365

Interpreting Differences in IQ Scores 366

Extremes of Intelligence 370

CONNECTING WITH CAREERS *Sterling Jones, Supervisor of Gifted and Talented Education 371*

What Changes in Language Development Occur in Middle and Late Childhood? 373

Vocabulary, Grammar, and Metalinguistic Awareness 374

Reading 374

Bilingualism and Second-Language Learning 375

CONNECTING WITH DIVERSITY *Bilingual Education 376*

What Characterizes Children's Achievement? 377

Extrinsic and Intrinsic Motivation 377

Mastery Motivation and Mindset 378

Self-Efficacy 379

Goal Setting, Planning, and Self-Regulation 380

Social Relationships and Contexts 380

CONNECTING WITH RESEARCH *Why Does Children's Math Achievement Differ in the United States, China, Taiwan, and Japan? 382*

Reach Your Learning Goals 383

CHAPTER 13

Socioemotional Development in Middle and Late Childhood 387

What Is the Nature of Emotional and Personality Development in Middle and Late Childhood? 389

The Self 389

CARING CONNECTIONS *Increasing Children's Self-Esteem 392*

Emotional Development 392

Moral Development 395

Gender 401

What Are Some Changes in Parenting and Families in Middle and Late Childhood? 405

Developmental Changes in Parent-Child Relationships 405

Parents as Managers 406

Stepfamilies 406

What Changes Characterize Peer Relationships in Middle and Late Childhood? 407

Developmental Changes 408

Peer Status 408

Social Cognition 409

Bullying 410

CONNECTING WITH RESEARCH *How Are Perspective Taking and Moral Motivation Linked to Bullying? 411*

Friends 412

What Are Some Important Aspects of Schools? 413

Contemporary Approaches to Student Learning 413

Socioeconomic Status and Ethnicity 415

CONNECTING WITH DIVERSITY *The New Hope Intervention Program 416*

CONNECTING WITH CAREERS *James Comer, Child Psychiatrist 417*

Reach Your Learning Goals 418

SECTION 6 ADOLESCENCE 422

CHAPTER 14
Physical Development in Adolescence 424

What Is the Nature of Adolescence? 426
Positive and Negative Views of Adolescence 426
Developmental Transitions 427

What Are the Physical and Psychological Aspects of Puberty? 429
Sexual Maturation, Height, and Weight 429
Hormonal Changes 430
Timing and Variations in Puberty 431
Psychological Dimensions of Puberty 432
The Brain 433

What Are the Dimensions of Adolescent Sexuality? 434
Developing a Sexual Identity 435
Timing and Trends in Adolescent Sexual Behavior 435
Sexual Risk Taking in Adolescence 436

CONNECTING WITH DIVERSITY *Cross-Cultural Comparisons of Adolescent Pregnancy 439*

CONNECTING WITH CAREERS *Lynn Blankenship, Family and Consumer Science Educator 440*

CARING CONNECTIONS *Reducing Adolescent Pregnancy 441*

How Can Adolescents' Health and Health-Enhancing Assets Be Characterized? 442
Adolescent Health 442
Leading Causes of Death in Adolescence 445
Substance Use and Abuse 446
Eating Problems and Disorders 447

CONNECTING WITH RESEARCH *Evaluation of a Family Program Designed to Reduce Drinking and Smoking in Young Adolescents 448*

Reach Your Learning Goals 451

CHAPTER 15
Cognitive Development in Adolescence 454

How Do Adolescents Think and Process Information? 456
Piaget's Theory 456
Adolescent Egocentrism 458
Information Processing 459

CONNECTING WITH CAREERS *Laura Bickford, Secondary School Teacher 463*

What Characterizes Adolescents' Values, Moral Education, and Religion? 463
Values 464

CONNECTING WITH RESEARCH *Evaluating a Service-Learning Program Designed to Increase Civic Engagement 465*
Moral Education 465
Religion 467

What Is the Nature of Schools for Adolescents? 470
The American Middle School 470
The American High School 472
High School Dropouts 472

CONNECTING WITH DIVERSITY *Cross-Cultural Comparisons of Secondary Schools 473*

CARING CONNECTIONS *The "I Have a Dream" Program 475*

How Do Adolescents Experience Career Development? 475
Developmental Changes 476
Exploration, Decision Making, and Planning 476
Sociocultural Influences 476

CONNECTING WITH CAREERS *Armando Ronquillo, High School Counselor/College Advisor 477*

Reach Your Learning Goals 479

CHAPTER 16
Socioemotional Development in Adolescence 482

What Characterizes Emotional and Personality Development in Adolescence? 484
Identity 484
Emotional Development 488

What Is the Nature of Parent-Adolescent Relationships? 489
Parental Monitoring 489
Autonomy and Attachment 489
Parent-Adolescent Conflict 490

CARING CONNECTIONS *Strategies for Parenting Adolescents 491*

What Aspects of Peer Relationships Are Important in Adolescence? 492
Friendship 492
Peer Groups 493
Dating and Romantic Relationships 494

Why Is Culture an Important Context for Adolescent Development? 496
Cross-Cultural Comparisons 496
CONNECTING WITH DIVERSITY *How Adolescents Around the World Spend Their Time 498*
Ethnicity 499
Media and Technology 500
What Are Some Socioemotional Problems in Adolescence? 502
Juvenile Delinquency 502
CONNECTING WITH CAREERS *Rodney Hammond, Health Psychologist 504*
Depression and Suicide 504
The Interrelation of Problems and Successful Prevention/Intervention Programs 507
CONNECTING WITH RESEARCH *Fast Track 508*
Reach Your Learning Goals 509

Glossary G-1
References R-1
Credits C-1
Name Index N-1
Subject Index S