



## LIST OF CHANGES

# Child Development

## An Introduction

16th Edition

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The 16th edition of *Child Development* has been updated with more than 1,000 citations from 2020-2022. To highlight the importance of culture, race/ethnicity, socioeconomic status, and access to technology as contexts that influence many aspects of children's development, this edition has a new organization that features these contexts early in the text (Chapter 2: Contexts of Development: Culture, Race/Ethnicity, Socioeconomic Status, and Technology), to frame understanding of all subsequent topics. Additionally, new content is included regarding debates on current terminology used for various demographic groups, and related terms are updated throughout the text. The new Guide to Diversity, Equity, and Inclusion, found in the preface, highlights the many updates the authors have made in these critical areas. All the Connecting with Careers boxes have been updated, and many new profiles introduce the reader to additional careers and a diverse group of active professionals.

## Take your students higher.

McGraw Hill Connect® is a complete course platform. It helps you deliver cohesive learning experiences through structured content and interactivity. When students engage with Connect, their individual needs become clear. This enables you to assign coursework, aligned to the levels of Bloom's Taxonomy, that keeps your students moving forward on their unique learning path from foundational cognitive skills to higher-order thinking and application. The chart below shows how each asset type aligns to Bloom's Taxonomy.

ASSET	DESCRIPTION	BLOOM'S TAXONOMY					
		REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
SmartBook® 2.0	McGraw Hill's adaptive reading experience has been made more accessible, productive, and mobile. Rooted in advanced learning science principles, SmartBook 2.0 delivers a personalized experience, focusing students on their learning gaps and ensuring they get the most out of the time they spend studying.	✓	✓				
Quest	An engaging and innovative learning game, Quest: Journey Through the Lifespan provides students with opportunities to apply content from their human development curriculum to real-life scenarios. Students play unique characters who range from 9-months-old to 80-years-old and make decisions that apply key concepts and theories as they negotiate events in an array of authentic environments	✓	✓				
Concept Clip	Concept Clips offer dynamic, colorful graphics and stimulating animations that break down some of psychology's most difficult concepts in a step-by-step manner, aiding in retention. Now with audio narration, this edition also includes new Concept Clips on topics such as object permanence and conservation, as well as theories and theorists such as Bandura's social cognitive theory, Vygotsky's sociocultural theory, Buss's evolutionary theory, and Kuhl's language development theory.  Also new to this edition, Concept Clips feature a more modern visual style, updated scripts and assessment items, and enhanced accessibility.	✓	✓				

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Interactivities	Assignable through Connect, Interactivities engage students with content through experiential activities. New and updated activities include Prenatal Development and Kohlberg's Moral Reasoning.	✓	✓				
NewsFlash	Located in Connect, NewsFlash is a multimedia assignment tool that ties current news stories, TedTalks, blogs, and podcasts to key psychological principles and learning objectives. Students interact with relevant media and are assessed on their ability to connect the content to the research findings and course material. NewsFlash is updated once a year and uses expert sources to cover a wide range of topics, including emotion, personality, stress, drugs, COVID-19, ableism, disability, social justice, stigma, bias, inclusion, gender, LGBTQA+, and many more.	✓	✓				
Milestones Videos	<p>The McGraw Hill Milestones video series is an observational tool that allows students to experience life as it unfolds, from infancy to late adulthood. This longitudinal video series tracks the development of real children as they progress through the early stages of physical, social, and emotional development in their first few weeks, months, and years of life. Assignable and assessable within Connect, Milestones also includes interviews with adolescents and adults to reflect development through the entire life span.</p> <p>New to this edition, Milestones are available in a more engaging, WCAG-compliant format.</p>	✓	✓	✓			

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Writing Assignment	Writing Assignment delivers a learning experience that helps students improve their written communication skills and conceptual understanding. Faculty can assign, monitor, grade, and provide feedback on writing projects efficiently. Built-in grammar and writing review help students improve writing quality while an originality check helps them identify potential plagiarism before submission. End result? Improved workplace skills of writing and critical thinking.	✓	✓	✓	✓	✓	✓
Power of Process	Power of Process helps students improve critical-thinking skills and allows instructors to assess these skills efficiently and effectively in an online environment. Available through Connect, preloaded journal articles are available for instructors to assign or instructors can upload their own. Using a scaffolded framework such as understanding, synthesizing, and analyzing, Power of Process moves students toward higher-level thinking and analysis.	✓	✓	✓	✓	✓	✓

## Connect Platform-Wide Updates

- **NEW!** Updated instructor experience provides a simplified dashboard, quicker and easier access to information you need with fewer clicks. Newly optimized for mobile usage and with accessibility enhancements, pages are now screen-reader compatible, key board navigable, and allow for up to 400% magnification.
- **NEW!** Co-instructor privileges are now available. Instructors can easily add instructors to any section.
- **NEW!** Writing Assignment has the option to assign a peer review, including the ability to set the number of peer reviews, automatic assigning after the draft due date, and anonymous peer commenting.
- **NEW!** Increased maximum points to 2,000 points for an individual question or assignment.
- **NEW!** Streamlined integration with your Learning Management System (LMS). The new LTI Advantage integration allows for easier section pairing, automatic account creation for new users, improved visibility into grade sync features, automatic relinking, and better security.
- **NEW!** Polling Tool is now available as a resource in Connect.
- More mobility. Free download the ReadAnywhere® App and Connect tablet app allows students full access to their Connect course to complete assignments, read their eBook, and check grades—just like they would on a laptop browser.
- Accessibility enhancements ensure new content and technology follows the WCAG version 2.1 AA guidelines and best practices. Some examples of enhancements include a compliant click-and-drag question type in the Question Bank, alt descriptions added to eBook for screen reader users, increased accessibility to presentation PowerPoints, and read-aloud functionality in SmartBook 2.0. For further information regarding McGraw Hill accessibility, please contact us at [accessibility@mheducation.com](mailto:accessibility@mheducation.com).
- World-class reliability with 99.9% platform uptime.
- Option for students to purchase a loose-leaf version of the text at a significant discount with free shipping.
- Partnership with the Online Learning Consortium (OLC) provides an even higher level of expertise and support when transitioning your course.



## Chapter-by-Chapter Changes

A significant reason *Child Development* has been successfully used by instructors for edition after edition is the painstaking effort and review that goes into making sure the text provides the latest research on all topic areas discussed in the classroom. This new edition is no exception, with more than 1,000 citations from 2020, 2021, and 2022. The highlighted research reflects relevant classic and current findings by a diverse group of researchers. Additionally, Chapter 7: Historical Foundations of Cognitive Developmental Theories is retitled to emphasize the focus on the essential, relevant theories from early researchers and their importance today.

To highlight the importance of culture, race/ethnicity, socioeconomic status, and access to technology as contexts that influence many aspects of children's physical, cognitive, and social development, this edition has a new organization that features these contexts of development early in the text (Chapter 2: Contexts of Development: Culture, Race/ Ethnicity, Socioeconomic Status, and Technology) in order to frame understanding of all the subsequent topics. Additionally, new discussion is included regarding debates on current terminology used for various demographic groups, and related terms are updated and consistent throughout the text.

In order to provide students with more current examples of related and attainable career opportunities, all of the Connecting with Careers boxes have been updated, and many new profiles introduce the reader to additional careers and a very diverse group of active professionals.

Following is a sample of the many chapter-by-chapter changes that were made in this new edition of *Child Development*.

### Chapter 1: Introduction

- Expanded coverage of research regarding the causes of lack of access to socioeconomic resources (Mayo & Wadsworth, 2020), and the impact of inequities in access to these resources with regard to child and adolescent development (Peverill & others, 2021)
- New discussion of the importance of racial and ethnic identity and pride, and how this plays a crucial role in healthy and resilient development for children and adolescents in minoritized groups in the United States who face racism and discrimination (Clauss-Ehlers & others, 2021; Umaña-Taylor & Hill, 2020)
- Updated definition of gender to clarify its distinction from biologically oriented definitions of female or male sex
- Updating of key sources regarding gender identity and its importance to child and adolescent development (Erickson-Schroth & Davis, 2021; Gutierrez & others, 2020)
- New data from the United Nations regarding gender disparities in educational and economic outcomes around the globe (UNICEF, 2021, 2022)

- New data for the United States on changes in childhood poverty rates, information on how these rates differ as a function of child race and ethnicity (Semega & others, 2020) and comparisons to rates in other industrialized countries (OECD, 2021)
- Expanded definitions and coverage of information about "generation Z/post-millennials" and generational cohort differences (Dimock, 2019; Vogels, 2019)
- Updating of key concepts, findings, and the out-of-date debate about "nature versus nurture," information on how these influences work together in child and adolescent development, and an explanation of how epigenetic changes can occur to influence gene  $\times$  environment interactions in development (Champagne, 2021; Mason & others, 2021)
- New research evidence and theories regarding the roles of early and later/recent experience on developmental outcomes (Dagan & Sagi-Schwartz, 2021; McCrae & others, 2021)
- Expanded information about the importance of studying the diversity of identities and experiences among first- and second- generation immigrant youth and families in the United States (Diaz-Rico & others, 2020; Parke & others, 2020)
- Updated and expanded Connecting with Diversity feature, including the latest international data regarding culture and gender, and disparities that often put girls at greater risk for not being able to attend or complete school or for receiving opportunities for economic security (Ozdenerol, 2021; UNICEF, 2021, 2022)

### Chapter 2: Contexts of Development: Culture, Race/ Ethnicity, Socioeconomic Status, and Technology

- Reconceptualized, reorganized, and relocated chapter positioned early in the text to emphasize the importance of culture, race/ ethnicity, socioeconomic status, and technology as contexts that affect many aspects of children's physical, cognitive, and social development
- New opening scenario and introduction to how culture, race/ ethnicity, socioeconomic status, and technology serve as contexts for development
- Updated statistics on racial and ethnic diversity in the United States
- New Connecting Through Diversity feature that highlights ongoing discussions regarding preferred terminology for describing ethnic and racial groups and how this terminology is addressed throughout this edition
- New research on how early physical and cognitive development are negatively affected by inadequate nutrition and food insecurity that often accompany poverty (Alam & others, 2020)

## Chapter 2 (continues)

- Added attention to social structures and barriers that make it difficult for families to escape the cycle of ongoing poverty across generations
- Updated numbers of immigrant families in the United States
- Discussed how race and ethnicity can be confounded with immigrant status, but individuals who identify with underrepresented racial and ethnic groups are not necessarily immigrants
- New qualitative study of racial identity (Onnie Rogers & others, 2021)
- Coverage of contemporary research on the psychological strengths of Black American adolescents
- New research on different types of discrimination faced by Black American adolescents (English & others, 2020)
- New research on technology and development in the context of the COVID-19 pandemic (Yates & others, 2021)
- Description of new intervention in which elementary school boys with obesity who were randomly assigned to an exergame condition in which they played Xbox Kinect for 60 minutes per day, three days per week, benefited from weight reduction and improved lung function compared with a no-exergame control group (Irandoust & others, 2021)
- New research showing the connections between parenting and the development of problematic Internet use in adolescents (Lukavská, Vacek, & Gabhelík, 2020)
- New Connecting with Careers profile on Adriana Umaña-Taylor, a professor and researcher of ethnic-racial identities who studies immigrant families in the United States

## Chapter 3: Biological Beginnings

- New description of recently developed next-generation sequencing, which can sequence an entire human genome in one day. The new technology sequences millions of small DNA fragments (Fox & others, 2021).
- Added information about infertility, which is estimated to affect 8 to 12 percent of couples worldwide, with a male factor being the primary or a contributing cause in 50 percent of infertility cases (Agarwal & others, 2021)
- New data suggesting that fertility drugs are more likely than IVF to produce multiple births (March of Dimes, 2017)
- New discussion of links between multiple births and an increased likelihood that the babies will have life-threatening and costly problems such as extremely low birth weight (March of Dimes, 2017)
- Discussion of new perspectives that emphasize the importance of taking a polygenic approach across the whole genome rather than focusing solely on single genes (Davidson & others, 2021)

- New discussion of difficulties in replicating results regarding gene  $\times$  environment interaction (G  $\times$  E), despite researchers' enthusiasm for this approach
- New Connecting with Careers feature on Jennifer Leonhard, a genetic counselor who assists clients with family planning decisions

## Chapter 4: Prenatal Development and Birth

- Updated data on similarities in fetal growth in populations around the globe when mothers have access to adequate nutrition and prenatal care
- New comprehensive research review and meta-analysis demonstrating that a high level of maternal stress during pregnancy is associated with neural tube defects in offspring (Jia & others, 2019)
- New research on the prenatal progression of neural development
- Updated research showing that higher maternal caffeine intake during pregnancy predicts lower birth weight (Gleason & others, 2021) and structural brain alterations and poorer neurocognitive outcomes during childhood (Christensen, Freedman, & Foxe, 2021)
- Added acknowledgement that the World Health Organization (WHO) and many other public health bodies around the globe, not only in the United States, recommend that women not consume alcohol during pregnancy
- New studies regarding the recent dramatic increase in the use of e-cigarettes (Rostron & others, 2020) and the fact that using them during pregnancy is associated with the same risks for premature birth and low birth weight as combustible cigarettes (Regan & Pereira, 2021)
- New study demonstrating that, after birth, infants who were exposed to cocaine regularly in utero experience withdrawal (Mark, 2022)
- Expanded consideration of effects of prenatal exposure to marijuana, which a number of studies have linked to a wide range of problematic child and adolescent outcomes
- Recent review of studies showing that despite widespread evidence of negative outcomes, marijuana use by pregnant women has increased over the past two decades, raising concern that marijuana use by pregnant women may increase further given the increasing number of states that are legalizing or decriminalizing marijuana (Kees & others, 2020)
- Addition of the largest study to date (over 41,000 infants born in the United States) indicating that newborns with physical defects are more likely to have diabetic mothers than newborns without such defects (Tinker & others, 2019)
- New review of evidence suggesting that although newborns can be infected with COVID-19, the infections did not appear to have occurred in utero (Yang & others, 2021)

## Chapter 4 (continues)

- Recent recommendations from the U.S. Food and Drug Administration and American Pregnancy Association that pregnant women should avoid eating fish with high mercury content but increase their consumption of fish that have a low mercury content, such as salmon, tilapia, and cod
- New research showing that positive mood and overall good emotional health during pregnancy benefit the fetus, the newborn baby, and the developing child for years to come (Phua, Kee, & Meaney, 2019)
- New research reviews concluding that there is an increased risk of spontaneous abortion, autism spectrum disorder, and schizophrenic disorders when the father is 40 years of age or older at the time of conception (Brandt & others, 2019)
- New content regarding how fathers can contribute to healthy pregnancies by providing support to the mother and having a positive attitude toward the pregnancy
- New information regarding recommended exercises for early in pregnancy and as the pregnancy progresses (Bowersock & Lin, 2020)
- New information on pain management during labor and delivery
- Updated global cesarean rates
- New research showing that COVID-19 increases risk for premature birth and that there is a high risk of mother-to-newborn transmission after delivery (Segars & others, 2020)
- New Connecting with Careers profile featuring midwife Jennifer Nguyen, who works with diverse communities in Canada and strives to reduce inequities in health-care access in rural and remote areas

## Chapter 5: Physical Development and Health

- Updated statistics and information regarding physical growth and development from the fetal period through adolescence, including puberty-based changes (Hay & others, 2021; National Center for Health Statistics, 2022; Pfeifer & Allen, 2021)
- Expanded coverage of research evidence that the onset of puberty is occurring at younger ages for girls in many places around the globe (Eckert-Lind & others, 2021)
- Revised emphasis on the most recent theories, hypotheses, and empirical evidence regarding brain development across infancy, childhood, and adolescence, including brain plasticity and development (Esteves & others, 2021); neuron development, including myelination (Moss & others, 2021); growth and change in neural circuitry (Heckman & Doe, 2021), including neural “pruning” (Sugama & Kakinuma, 2021); role of experience, especially in early brain development (Rachwani, Hoch, & Adolph, 2021); gradual frontal lobe development across childhood that moves the brain toward more focalized functioning to support higher-level cognitive capacities (Bigler, 2021); and changes in limbic system and frontal cortex development across adolescence (Kolk & Rakic, 2022)

- New research on the correlates and causes of sudden infant death syndrome (SIDS) (Cowgill, 2020; U.S. Preventive Services Task Force & others, 2021)
- Expanded coverage of recent research indicating how important it is for children and youth to get adequate sleep (Willumsen & Bull, 2020) and also how common it is for adolescents to have poor sleep habits in many places around the globe (Gariepy & others, 2020)
- Updated information on the most common causes of disability and death among children in the United States (Heron, 2021)
- Updated statistics regarding breastfeeding and bottle feeding of infants in the United States, and the presence or absence of the effects of breastfeeding on child and maternal health and other outcomes (CDC, 2020; Landa-Rivera & others, 2022; Linde & others, 2020; WHO, 2021)
- Updated information about the challenges of encouraging and supporting breastfeeding of infants in low-income settings within countries and between countries globally (Walters, Phan, & Mathisen, 2019)
- New research regarding the positive impacts of the Women, Infants, and Children (WIC) federal nutrition program for low-income families in the United States (Paolicelli & others, 2021; Testa & Jackson, 2021)
- Expanded coverage of the latest research evidence regarding gender and race or ethnic group disparities in access to spaces and programs for physical activity and exercise (Underwood & others, 2020) and presentation of evidence from China that physical activity reduced rates of depression in adolescents during the social and physical isolation of the COVID-19 pandemic (Ren & others, 2021)
- New statistics and research regarding increased rates of childhood and adolescent obesity in the United States and other countries (WHO, 2020)
- New discussion of the largest and most recent meta-analysis showing the efficacy of school-based interventions for improving healthy eating choices and behaviors (Pineda & others, 2021)
- Latest recommendations for physical activity frequency and intensity for children and teens from the World Health Organization (2019) and Society of Health and Physical Educators (2022), along with the latest evidence regarding the positive effects of vigorous physical activity on health, cognitive development, and social-emotional functioning (Lee, 2021; Sun & others, 2021)
- New evidence that increased rates of “screen time” may impede physical activity, which in turn is related to higher rates of physical and behavioral problems, as well as lower academic performance (van Sluijs & others, 2021)
- New Connecting with Careers profile on Alyssa Cantal, a pediatric occupational therapist
- New Connecting with Careers feature on Ariana Lorenzo, a child life specialist

## Chapter 6: Motor, Sensory, and Perceptual Development

- New laboratory tests showing that individuals who are blind are better than individuals with sight at voice recognition tasks (Pang & others, 2020) and tasks that rely on the ability to use olfactory cues to locate objects (Manescu & others, 2021)
- New research on how infants plan and guide their locomotion under challenging conditions and how walking skills are related to other aspects of development
- New study demonstrating that youth who participated in organized sports had better cardiometabolic health (indexed by blood pressure, cholesterol, and other indices) not just in childhood and adolescence but also in young adulthood (Logan & others, 2020)
- New description of advances in 4D ultrasound technology that have made it possible to examine the visual preferences of fetuses by projecting images through the mother's tissue for the fetus to see
- New research on how infants' experiences with emotional expressiveness of their families are predictive of their ability to match emotions across facial and vocal modalities (Ogren, Burling, & Johnson, 2018)
- New study showing that infants exposed to tone languages that use pitch to convey different word meanings retain the ability to discriminate these pitches, but infants who are not exposed to tone languages lose the ability to distinguish certain pitches by the age of 6 to 9 months (Kager, 2018)
- New research on fetal development indicating that fetuses in the second and third trimesters of pregnancy respond to external stimuli by moving their heads, mouths, and arms as their mothers touch their abdomen (Nagy & others, 2021)
- New information that milestones in the development of gross motor skills generally show cross-cultural similarities, although experiences provided in some cultural contexts can speed or slow the attainment of particular milestones
- New Connecting with Careers profile on Laura Faith Kendall, a board-certified music therapist

## Chapter 7: Historical Foundations of Cognitive Developmental Theories

- New chapter title emphasizing the focus on relevant, classic theories and theorists
- Updated framing of Piaget's and Vygotsky's theories to convey their historical and foundational impact and also to set the stage for the discussion of contemporary information processing approaches in the subsequent chapter
- Clarification of the enumeration of the substages within Piaget's sensorimotor stage of development

- Updating of the critical analysis of Piaget's stage theory of cognitive development, with an emphasis on the alternative perspectives in contemporary research that now guide the field (Adolph & Hoch, 2021; Hayne & Herbert, 2021; Oakes, 2021)
- Revised presentation of the latest theory and empirical evidence from Baillargeon's research on early and possibly inborn cognitive capabilities of very young infants, as well as updating of information about critiques of "nativist" views of the earliest cognitive capacities and the variety of methods and theories available for understanding cognitive development in infancy
- New research exemplifying distinct features of adolescent decision making, such as risky decision making involving the use of substances such as nicotine (Burrow-Sánchez & Ratcliff, 2021)
- Updated evidence of some of the positive developmental effects of children's use of private self-directed speech (Day & Smith, 2019; Smolucha & Smolucha, 2021)
- Revised emphasis on the latest theory and empirical support for concepts directly or indirectly based on Vygotsky's theory being applied to education and learning (Dunphy, 2020; Johnson & Cochran, 2021; Nicholas, Veresov, & Clark, 2021)
- Updated content on the impacts of Rogoff's work on guided participation demonstrating that children learn—through observation and practice—many of the key cognitive skills and understanding that are valued by and supported within their culture (Alcalá, Montejano, & Fernandez, 2021)
- New Connecting with Careers profile on Katherine McMillan Culp, a research scientist and Chief Learning Officer at the New York Hall of Science

## Chapter 8: Information Processing

- Updates involving the implications of the latest theories, research methods, and empirical findings within the information processing approach for understanding cognitive development (Bjorklund, 2022; Dotan, Eliahou, & Cohen, 2021)
- Latest research evidence regarding the importance of speed of information processing in children's developing cognitive capacities (Gerst & others, 2021; Śmigasiewicz & others, 2021; Smolak & others, 2021)
- New research evidence that processing speed is associated with better reading skill and comprehension in a diverse array of languages (Gerst & others, 2021)
- New presentation of the most recent thinking and evidence regarding Siegler's three mechanisms of developmental change and self-modification processes in children's thinking and learning (Davis & others, 2021; Dos Santos Kawata & others, 2021; Graham & others, 2021; Siegler & Alibabi, 2020)

## Chapter 8 (continues)

- Updated information on the role of attention in cognitive development and learning (Bell & Broomell, 2022; Richards & Conte, 2021), with particular emphasis on orienting, sustained attention, habituation, and joint attention with care-givers (Gattis & others, 2020; Piazza & others, 2020; Tham & others, 2021; Wang & Feigenson, 2021)
- New research indicating the important role that working memory plays in math skill development among bilingual children (Swanson, Arizmendi, & Li, 2021)
- New findings from one of the most recent attention training experiments conducted with children (Nava, Focker, & Gori, 2020)
- Latest evidence of the detrimental impact of multitasking behavior on the academic and cognitive skills of adolescents (Clinton-Lisell, 2021)
- Recent research on the role of working memory in children's cognitive and academic skills (Nelwan & others, 2022; Rosenberg & others, 2020; Traverso & others, 2021; Vernucci & others, 2020)
- Newest theory and research on memory processes and how the formation and updating of memories occurs throughout child and adolescent development (Forsberg, Adams, & Cowan, 2022; Newberry, Feller, & Bailey, 2021; Rubinova & others, 2021; Schacter, 2021)
- Updated theory and evidence regarding the impacts of culture on how memories are formed and utilized, including research on cultural life scripts (Bohn & Bundgaard-Nielsen, 2021)
- New information on how strategies such as elaboration and organization can improve memory performance (Graham & others, 2021; Hutchison, Ross, & Cunningham, 2021), as well as the impact of development in specific brain regions across adolescence (Montez, Calabro, & Luna, 2019)
- Latest theory and research on categorization development in infancy (Oakes, 2021; Schlegelmilch & Wertz, 2021)
- New research regarding the development of executive function, critical thinking, scientific thinking, and problem solving across childhood and adolescence (Bell & Garcia Meza, 2020; Filion & Sirois, 2021; Howard & others, 2021; Manz, Lehrer, & Schauble, 2020; Sternberg & Halpern, 2020)
- Updated research on the development and implications of improvements in metacognitive and theory of mind skills (Devine & Lecce, 2021; Dos Santos Kawata & others, 2021; Yates, Ellis, & Turk-Browne, 2021), including important connections with autism spectrum disorder (National Autism Association, 2022; Rice & others, 2022)
- Latest evidence on the impact of low-income environments that impede access to resources needed to support development of executive function in early and later childhood (Baker & Brooks-Gunn, 2020; Deer, Hastings, & Hostinar, 2020)

- New evidence that the well-established link between theory of mind and executive function development has been observed in multiple cultural contexts (Fujita, Devine, & Hughes, 2022)

## Chapter 9: Intelligence

- Updated definitions and theories regarding intelligence and how it can be measured (Bjorklund, 2022; Cavinez & others, 2020; Sternberg, 2021a, b)
- Updated evidence and interpretation of the potential for appropriate use and misuse of intelligence tests and IQ scores (Furnham, 2021; Lam & Zhou, 2022; Wright, 2020)
- New theories and research regarding other viewpoints about intelligence, including entity versus incremental theories, emotional intelligence, multiple intelligences, and a general intelligence factor ("g") (Dasborough & others, 2022; Di Fabio & Saklofske, 2021; Karlen & others, 2021; Kornhaber, 2020; Rindermann, Becker, & Coyle, 2020)
- Recent summaries of evidence and theory regarding the role of the brain and its functions in intelligence (Haier, 2020; Kindu & Risk, 2021; Schubert & Frischkorn, 2020)
- New evidence regarding genetic and environmental influences on individual differences in intelligence (Mayer, 2020; Sternberg, 2021a, c; von Stumm & Plomin, 2021), including impacts of early interventions for vulnerable populations of children (Bredekamp, 2019; Ramey, 2019)
- Expanded discussion of recent theory and evidence offering critical analysis of intelligence testing and use of test scores for group comparisons, with an emphasis on consideration of the harm caused by, and solutions to, cultural bias in testing and use of test scores (Sternberg, 2021a, b)
- Updated definitions of intellectual disability and its variants, and giftedness and its variants, and how these are identified in children (Elliott & Resing, 2020; National Association for Gifted Children, 2020; Schalock, Luckasson, & Tassé, 2021)
- Latest policy and practice information regarding the challenges faced in low-income communities and families, and how these can be addressed in ways that promote more opportunities for supporting development of intelligence in children and youth (Ramey, 2019; Schiariti, Simeonsson, & Hall, 2021)
- Updated content on creativity, its measurement, and how to support it in educational settings (Kaufman & Sternberg, 2021; Reis & Renzulli, 2020; Roberts & others, 2021)
- New Connecting with Careers profile on Geoffrey Moon, an educator who specializes in gifted education programming

## Chapter 10: Language Development

- Updated and expanded definitions of language and language learning that includes hearing and deaf individuals (Bruhn de Garavito & Schwieter, 2021; Levine, Hirsh-Pasek, & Golinkoff, 2021)

## Chapter 10 (continues)

- Latest theory and research regarding the “rule systems” and other features that are common to all languages (Quam & Creel, 2021; Westbury, 2021)
- New research on phonology, morphology, syntax, semantics, and pragmatics (Bruhn de Garavito, 2021a, b, c; Ferreira & others, 2021; Pearl, 2021; Taboada, 2021)
- Updated theory and research regarding the progression of language learning in infancy, including babbling, gestures, and first words (Goldin-Meadow, 2020; Kuhl, 2021; Levine, Hirsh-Pasek, & Golinkoff, 2021; Meyer & Hunnius, 2021)
- Expanded coverage of “statistical learning” in language development (Aslin, 2020; Lany & Shoaib, 2020)
- New research on vocabulary, syntax, and pragmatics development across early childhood (Bruhn de Garavito, 2021c; Schweiter, 2021; Vukelich & others, 2020; Taboada, 2021)
- Expanded discussion of the role of culture and cultural context in pragmatics and language learning and comprehension (Nadasdi, 2021; Rowe & Weisleder, 2020)
- Updated coverage of the research and theory regarding young infants’ developmental progression from perceiving all possible speech sounds, toward a preferential improvement in perceiving speech sounds in their own first language (Kuhl, 2021)
- New evidence regarding “fast mapping” in word learning (Remon & others, 2020; Weatherhead & others, 2021)
- Expanded discussion of the latest theory and research for interpreting family socioeconomic differences in language learning environments and children’s language learning outcomes (Donnelly & Kidd, 2020; Florit & others, 2021; Masek & others, 2021)
- Expanded theory and research on the problem of “deficit” interpretations of family socioeconomic status and children’s language environments, and alternative approaches that can address this bias (Florit & others, 2021; Masek & others, 2021)
- Latest theory and evidence regarding the consistency of expanded word learning around the globe within most languages, even with highly language-specific speech sounds, word meanings, and pragmatics (Bruhn de Garavito & Schweiter, 2021; Schweiter, 2021)
- Updated research regarding culture-specific learning of phonology, syntactic rules, pragmatics, and higher-level understanding of language (“metalinguistic awareness”) across middle childhood (McBride, Pan, & Mohsani, 2021; Nadasdi, 2021)
- New evidence regarding the precursors of literacy development in early childhood (Morrow, 2020; Pakarinen & others, 2021; Yang & others, 2021) and the developmental progression of language in middle childhood (Nadasdi, 2021; Zipke, 2021)

- New research and the latest thinking about literacy and reading skill development, including the debate about phonological versus whole-language reading instruction methods (Dewitz & others, 2020; Gunning, 2020; Tompkins & Rodgers, 2020)
- New statistics from the National Assessment of Educational Progress (NAEP; U.S. Department of Education, 2020) regarding student reading achievement and confidence in reading-related tasks
- New theory and research regarding the development of writing skills, and approaches to writing instruction in school settings (Graham & Rui, 2021; Kim & others, 2021)
- New theory, research, and practice regarding bilingual language learning and instructional practice (Diaz-Rico, 2020; Grundy, 2020; Herrell & Jordan, 2020; Pace & others, 2021)
- New empirical evidence and theory regarding the evolution of language and its biological foundations in brain regions and networks (Cassidy, 2021; Venezia, Richards, & Hickok, 2021)
- New research on second language learning in childhood, including the mixed results regarding cognitive benefits arising from bilingual language development (Grundy, 2020; Pace & others, 2021) and use of the dual-language learning approach in schools (Harrell & Jordan, 2020; Tao & others, 2021)
- New information noting that over 60 countries (not including the United States) have legal status and national education standards for bilingual and sometimes trilingual language use and instruction (Jezak, 2021)
- Updated research indicating the critical role of the environment, including joint attention and gesturing, child-directed speech, and shared book reading in early language development (Dowdall & others, 2020; Nencheva & others, 2021; Piazza & others, 2021)
- New Connecting with Careers feature on Verlee Garcia, a speech pathologist who has extensive experience working with children from diverse groups

## Chapter 11: Emotional Development

- Updating of key sources regarding the latest theory and research on the biological, cognitive, and experience-based factors that contribute to emotional expression and emotional development (Aktar & Perez-Edgar, 2021; Cassidy, 2021; Richards & Conte, 2021)
- New research on the influence of social and cultural contexts on emotional development, including the impact of parenting (Dagan & Sagi-Schwartz, 2021; Rattaz & others, 2022; Suarez-Alvarez & others, 2020)
- New findings from the most recent comprehensive review and meta-analysis of global impacts of the COVID-19 pandemic on children’s emotional functioning and problems, comprising information from 10 countries spanning Asia and South America (Kumar Panda & others, 2021)

## Chapter 11 (continues)

- New research on the role of emotions early in infancy for communicating with caregivers and the role of caregiver and infant emotion in coregulation of feeling states (Mitsven & others, 2021; Ogren & Johnson, 2021; Walle & Lopez, 2020), along with the latest research on development of self-regulation of emotions across infancy and early childhood (Dollar & Calkins, 2020; Phillips & others, 2021)
- Updated statistics on the prevalence and developmental changes in the amount of crying that infants display (Cabana & others, 2021)
- New research on infants' stranger anxiety and separation protest (Brand, Escobar, & Patrick, 2020; Granqvist & Duschinsky, 2021)
- Updated and expanded research and debate about whether to let infants "cry it out" especially during the night (Bilgin & Wolke, 2020; Giesbrecht & others, 2020)
- New studies regarding preschoolers' developing capacity to express and understand increasingly complex emotional states (Hare & others, 2021; Lewis, 2020)
- Updated coverage of theory and research on cultural values and practices that emphasize different aspects of emotion expression and regulation as part of child temperament (Jenzer & others, 2019; Matsumoto & Juang, 2020), including the results of the largest and most recent study to date of 14 countries spanning Asia, South and North America, and Europe (Desmarais & others, 2021)
- New research and discussion regarding emotion coaching and emotion-dismissing parenting practices and how these relate to preschoolers' emerging self-regulation of emotion (Lobo & others, 2021), as well as updated evidence for links between children's and adolescent's emotion regulation and peer relationships (Herd & Kim-Spoon, 2021; Lindsey, 2021)
- Updated information on the development of the capacity to cope with stressors, and children's emotional responses to traumatic experiences and disasters (Fisher & others, 2021; Kumar Panda & others, 2021; Masten & others, 2021)
- Substantial updates to the key scholarship on the definitions of temperament and its links with emotion (Aktar & Perez-Edgar, 2021; Bates, McQuillan, & Hoyniak, 2019; Pozzi & others, 2021), including links to physiological bases (Kagan, 2019; Rothbart, Posner, & Sheese, 2021)
- New evidence and thinking about how genetic and environmental influences work together to account for individual differences in child temperament and emotional traits (Kanen & others, 2021; Shiner, 2021), including cultural factors and differences (Desmarais & others, 2021; Jenzer & others, 2019)

- New results from several of the longest-duration longitudinal studies on the links between temperament in early childhood and behavioral, emotional, and academic outcomes in adolescence and adulthood (DiLalla & DiLalla, 2018; Tang & others, 2021)
- New research on social interest and orientation and face-to-face interaction and their role in infants' and young children's emotional and social development (Bornstein & Esposito, 2021; Jessen, Obleser, & Tune, 2021), including social referencing (Fawcett & Kreutz, 2021)
- New theoretical and empirical work on the development of attachment, individual differences in attachment security, and links with healthy or unhealthy developmental outcomes (Dagan & Sagi-Schwartz, 2021; Girme & others, 2021; Posada & others, 2021; Thompson, 2021)
- Updated theory and evidence on the neurobiological and gene-environment interaction and epigenetic processes involved in attachment and the caregiver-child attachment relationship (Craig & others, 2021; Feldman, 2019; Storey, Alloway, & Walsh, 2020), including updated Figure 9 showing greater specificity of the brain regions implicated in attachment
- New research examining infant-father attachment and fathers' caregiving behaviors in gay and straight couples with children (Carone & Lingiardi, 2022; Cabrera & Roggman, 2017; Volling & Palkovitz, 2021)
- New statistics in Figure 10 showing the primary caregiving arrangements for children under 5 years old in the United States (National Center for Education Statistics, 2021)
- New information about certain countries' work and family-balance policies that strive to promote more equal caregiving among mothers and fathers of infants and young children (Greve & Hussain, 2021; Hakovirta & Eydal, 2020)

## Chapter 12: The Self and Identity

- New research showing that even into adulthood, individuals often present their idealized rather than their real selves in social media, particularly if they are confused or anxious about their identity (Michikyan, 2020)
- New discussion of how adolescents' perceptions of their possible selves are tied to race and social class, reflecting experiences with discrimination that constrain opportunities for some adolescents more than others
- New qualitative study using in-depth interviews to understand academic identity of Black and White American 12- and 13-year-olds (Legette, 2018)
- New research suggesting that use of social media may strengthen the association between physical appearance and self-esteem as individuals try to gain "likes" by posting attractive pictures of themselves (Dumas & others, 2020)
- Updated Figure 4 on the development of self-esteem

## Chapter 12 (continues)

- New research on global self-esteem and self-esteem in specific areas
- Addition of three major factors in identity narratives: motivational and affective themes (such as goals and emotions), autobiographical reasoning (such as reported changes in understanding about oneself or an experience), and structural aspects (such as temporal sequencing and the amount of detail provided (McLean & others, 2020)
- New study of immigrant and non-immigrant adolescents in Greece, which found that national identity and friendship networks developed in tandem, with identity influencing friendship choices, and friends influencing identity development (Umaña-Taylor & others, 2020)
- New research finding that many aspects of sociocultural contexts may influence ethnic identity
- New introduction of the concept of bicultural identity or multi-cultural identities that encompass different cultural environments and can reflect individuals' experiences with immigration and globalization (Ferguson, Iturbide, & Raffaelli, 2020)
- New Connecting with Careers profile on Anna Boyer-Chadwick, an academic advisor whose advising and retention program is a nationally recognized model for Latino student success

## Chapter 13: Gender

- Thorough updating of terminology to clearly distinguish binary sex (usually assigned at birth) terms of “female” and “male” from gender terms, and a broadening of inclusive representation of gender terms to include “cis,” “girl/woman,” “boy/man,” and “transgender”
- New evidence regarding correlations between differing levels of sex hormones and gender identity and expression (Ostrikova & others, 2021; Vosberg & others, 2021)
- New sources regarding social role theory and social cognitive theory, other social influence hypotheses, and cognitive gender schema theory in relation to development of gender identity and expression in childhood and adolescence (Coyne & others, 2021; Eagly, 2018; Erickson-Schroth & Davis, 2021; Gutierrez & others, 2020; Pang & Baumann, 2020)
- New theory and evidence regarding peer influences on gender development (Mehta & Wilson, 2020; Schroeder & Liben, 2021)
- New research indicating that even though young children tend to generate gender-conforming stereotypes when considering gender roles and occupations, there also is evidence that their schemas are open to change when they are presented with new information (King & others, 2021)
- Revised and updated definitions of gender stereotypes, masculinity, and femininity

- New study results showing that children’s counterstereotyping of toys is associated with having less stereotyped gender role attitudes (Sims & others, 2022)
- New information about providing children and adolescents with opportunities and support for challenging traditional gender roles and biases with their peers and families, in order to address gender inequity (Best & Gibbon, 2019; Rogers & others, 2020)
- Updated and expanded theory and research regarding the mixed evidence for benefits of “single sex” education and its effects on development and academic achievement (Herr, Grant, & Price, 2020)
- Updated statistics for U.S. students regarding average gender differences on various measures of academic achievement and functioning (Brandistuen & others, 2021; National Center for Education Statistics, 2021)
- New research regarding gender group similarities and differences in different types of aggression (Brandes & others, 2021; Casper, Card, & Barlow, 2020)
- New scholarship regarding gender similarities and differences in emotions, emotion regulation, and prosocial attitudes and behaviors (Armstrong-Carter & others, 2020; Gagne, Liew, Nwadinobi, 2021)
- New information about the very small overall average differences seen in human brain structures and functions when comparing females and males (Eliot & others, 2021; Grabowska, 2020)
- Updated Caring Connections feature on ways to guide children’s gender development while also challenging gender bias and stereotypes
- New information regarding the cultural shift (observed also in research) toward more flexible and inclusive beliefs regarding gender identity and expression, especially with regard to challenging traditional binary gender identity and stereotypes
- Updated statistics and information regarding the prevalence and development of transgender identity, and the discrimination and bullying that transgender youth experience (Potter & others, 2021; Sherman & others, 2020)
- New Connecting with Careers feature on Terrance Weeden, a pediatrician who is also a vocal advocate for LGBTQ youth

## Chapter 14: Moral Development

- New opening scenario on the benevolence of a high school student who, after receiving a full-tuition college scholarship, contributed some of his college savings to launch a scholarship fund for fellow historically underrepresented students to maximize their academic potential
- New study showing that when children empathize with the feelings of others, they become more attuned to moral aspects of a situation that can trigger moral reasoning, but moral reasoning can be blocked when emotions are not invoked (Brockmyer, 2022)

## Chapter 14 (continues)

- New research suggesting that reasoning is linked to particular regions of the brain that are also important for emotions, including the left amygdala, medial prefrontal cortex, bilateral temporoparietal junction, and posterior cingulate (Fede & Kiehl, 2020)
- New study of moral reasoning in 67 countries (Atari, Lai, & Dehghani, 2020)
- New experiment testing a range of situational factors that can influence moral behavior (Misch & Dunham, 2021)
- New research on how secure attachment at the age of 2 years predicts better self-regulation 10 years later, in part because children who are securely attached are better able to regulate negative emotions like anger and in part because children who are securely attached are more likely to internalize their parents' values (Boldt, Goffin, & Kochanska, 2020)
- Updated information on service learning and how adolescents benefit when they help others and contribute to their communities (Fuligni, 2020)
- New study demonstrating that adolescent volunteers have higher self-esteem, more school engagement, and lower rates of depression than their peers who do not volunteer (Bang, Won, & Park, 2020)
- New research review suggesting the promise of incorporating volunteering as part of a clinical treatment approach for adolescent depression (Ballard & others, 2021)
- New research on how children's notions of fairness differ across cultural contexts
- New longitudinal study of 11 cultural groups in eight countries demonstrating that parental warmth during childhood predicted an increase in prosocial behavior during children's transition to adolescence (Pastorelli & others, 2021)
- New meta-analysis of 29 studies showing no differences in associations between mothers' and fathers' parenting and children's prosocial behaviors (van der Storm & others, 2021)
- New study of the development of forgiveness (Amir & others, 2021)
- New research on how parents socialize gratitude in their children (Hussong, Coffman, & Halberstadt, 2021)
- New study of over 5,000 individuals ranging in age from 10 to 30 years in 11 countries showing that improvements in aspects of psychosocial maturity involved in decision-making in emotionally charged situations continued beyond age 18 (Icenogle & others, 2019)
- New research showing that the developmental course from behavior problems in childhood to delinquency in adolescence can be disrupted by parental monitoring that reduces adolescents' opportunities to spend time with antisocial peers (Jaggers & others, 2021)

- New research on deviant peer contagion demonstrating how peers can reinforce one another's antisocial behaviors by laughing or going along with plans to engage in delinquency (Kornienko, Ha, & Dishion, 2020)
- New study indicating that both parents' socialization practices and national contexts that vary in religiosity and secularism affect children's religious beliefs and practices (Voas & Storm, 2021)
- Updated global trends in religiosity
- New Connecting with Careers feature on Gabriel Dy-Liacco, a university professor and pastoral counselor

## Chapter 15: Families

- New study indicating how parents' cognitive, emotional, and autonomy support in math activities was related to children's performance on a standardized mathematics exam (Huang & others, 2022)
- New research showing that parents who believe successes and failures reflect effort are more likely than parents who believe successes and failures reflect luck or inborn ability to socialize their children to work hard to improve their academic performance in the future (Ren & others, 2020)
- Added discussion on the specificity principle in developmental science, which emphasizes that specific cultural contexts, characteristics of individual people, and historical circumstances are all important in understanding developmental processes in specific domains (Bornstein, 2017)
- Integration of the COVID-19 pandemic into the section on historical changes
- Updated statistics on fertility patterns globally
- New research on new parents' satisfaction with their partner during the transition to parenthood (Smullen & others, 2021)
- Several new studies on parental monitoring of adolescents' activities, friends, and whereabouts
- New conceptualizations of how parents can gain knowledge about their children's lives
- New research with Latino families showing how having several generations living together or near one another and helping each other may be important in shaping the children's identity (Constante & others, 2020)
- Updated statistics in Figure 4 on the prevalence of corporal punishment in different countries
- New data on how parents' use of corporal punishment has declined over historical time and has been outlawed in dozens of countries
- New research demonstrating that coparenting effectively is important regardless of whether parents are living together or not (Cox & others, 2021)

## Chapter 15 (continues)

- New longitudinal study following children from kindergarten through middle adulthood, which found that adults who had been physically abused in the first five years of life were more likely to have clinical levels of internalizing problems (like anxiety and depression) and externalizing problems (like antisocial behavior), were more likely to have been convicted of a crime, and had poorer physical health than adults who had not been abused (Lansford & others, 2021)
- New review of research on parental autonomy support among Black, White, Latino, and Asian American families concluding that understanding this aspect of parenting needs to be grounded in cultural concepts related to independence and expectations of parents (Benito-Gomez & others, 2020)
- New five-country study showing that adolescents who had less destructive conflict with their parents were less likely to experience an increase in emotional and behavioral problems in early adulthood during the COVID-19 pandemic, suggesting the protective role of low-conflict parent-adolescent relationships (Skinner & others, 2021)
- Updated numbers of American children living with half siblings and stepsiblings
- Updated demographics of same-sex couples with children in their households
- New analysis of 72 reviews of the literature concluding that parents' sexual orientation is not related to their children's sexual orientation (Schumm & Crawford, 2019)
- New research on how parental monitoring varies across cultures in ways that are related to cultural expectations regarding adolescent autonomy and the amount of control parents should have over adolescents' decisions and activities (Soenens & Vansteenkiste, 2020)
- New content on how a global increase in the availability of smartphones and Internet access enables frequent contact among generations even across vast distances (Fingerman, Huo, & Birditt, 2020)
- New research on immigrant families and transnational families
- New research demonstrating that parenting in many under-represented ethnic families emphasizes issues associated with promoting children's ethnic pride, knowledge of their ethnic group, and awareness of discrimination (Umaña-Taylor & Rivas-Drake, 2021)
- New Connecting with Careers profile on Allison Tomlinson, an educator and marriage and family therapist who specializes in trauma and abusive situations

## Chapter 16: Peers

- New experimental study of the development of expectations about sharing (Lenz & others, 2021)
- New discussion on how early attachments to caregivers provide a connection to children's peer relations not only by creating a secure base from which children can explore social relationships beyond the family but also by conveying a working model of relationships
- New study on how perspective-taking skills can reduce ethnic discrimination in elementary school (Alan & others, 2021)
- New longitudinal study demonstrating that poor self-regulation during preschool predicted more aggression toward peers during elementary school (Ringoot & others, 2022)
- Updated discussion distinguishing sociometric popularity from perceived popularity
- New review of 154 studies finding that characteristics of families and parenting such as child abuse and neglect and witnessing domestic violence increase the likelihood of children's bullying, whereas characteristics such as parental support and adaptive communication reduce the likelihood of children's bullying (Nocentini & others, 2019)
- New research showing that peers who witness bullying sometimes are passive bystanders but in other cases intervene to help the victim or join in with the bully (Salmivalli & others, 2021)
- New research linking recess to children's socioemotional, cognitive, and physical well-being (Massey & others, 2021)
- New study demonstrating that the specific functions served by friends may differ across cultural contexts
- New longitudinal research indicating that co-rumination (as reflected in excessively discussing problems and dwelling on negative emotions) predicts an increase in positive friendship quality but also an increase in depressive and anxiety symptoms (Rose, 2021)
- Updated information on how pubertal timing is important, as boys and girls who mature earlier than their same-age peers are more likely to gravitate to older peers who engage in substance use and other problem behaviors (Bucci & Staff, 2020)
- Addition of several new studies on how the COVID-19 pandemic was related to changes in peer relationships
- New research suggesting that online romantic relationships may benefit shy or anxious individuals who find it difficult to meet potential partners in person (Cameron & Mascarenas, 2020)
- New research on developmental correlates of early romantic relationships
- New Connecting with Careers profile on Yolanda Curry, a high school counselor

## Chapter 17: Schools and Achievement

- Improved clarity and specification of the distinctions and intersections between socioeconomic status, race, and ethnicity, throughout the chapter
- New theory and research regarding child-centered constructivist and teacher-centered direct instruction teaching methods (Kauchak & Eggen, 2021; Sadker, Zittleman, & Koch, 2022)
- Updated information on the major child-centered educational approaches used in many countries during the preschool years, including the Reggio Emilia and Montessori approaches (Bredekamp, 2020; Lillard, 2021; Manera, 2022; Morrison & others, 2022)
- New information on the current status of the Every Student Succeeds Act (ESSA) in the United States (providing each state with autonomy regarding school and teacher accountability testing), along with the latest national student academic proficiency statistics including results from the 2019 TIMSS (Burnette, 2021; Irwin & others, 2021)
- Substantial updating of the recommendations for effective instruction from the National Association for Education of Young Children (NAEYC, 2020)
- New section, Schools and the Coronavirus Pandemic, with the latest statistics and research regarding impacts of the pandemic on schools, teachers, and children (Eales & others, 2021; Jabbari & others, 2021; Modi & others, 2021; Timmons & others, 2021; Viner & others, 2021)
- Updated data (through 2018) on school dropout rates in the United States, including statistics for girls and boys, and various racial and ethnic groups (National Center for Education Statistics, 2020)
- New theory and evidence regarding inequities and disparities in education access and supports for various socioeconomic, racial, and ethnic groups in the United States (Banks, 2020; Gollnick & Chinn, 2021; Nastasi & Naser, 2021)
- Extensively updated statistics, terminology, and research regarding student learning disabilities and special education services (Astle & others, 2022; Cardenas & others, 2021; Remien & Marwaha, 2021)
- Updated definitions and research on hypothesized causes of autism spectrum disorder (ASD) and implications for schools (Centers for Disease Control and Prevention, 2020; National Center for Education Statistics, 2020)
- Substantial updates to sections in Figure 1 (Core Considerations in Developmentally Appropriate Practice and Principles of Child Development and Learning that Inform Practice) (from NAEYC, 2020), to ensure that young learners with a wide range of advantages and disadvantages, and skills and areas needing improvement, are provided with effective learning experiences in preschool and beyond
- Latest information about Head Start and Early Head Start, preschool-based programs to address income inequities for infants, toddlers, and preschoolers (Administration for Children and Families, 2022; Bierman & others, 2021; Slater & others, 2021)
- New Connecting with Careers feature on Rakaya Humphreys, Director of Head Start for the Northwest Tennessee Economic Development Council
- Updated statistics (through 2018) in Figure 4 regarding children in public schools in the United States who receive educational support for various disabilities (National Center for Education Statistics, 2020)
- New sources regarding self-determination and intrinsic motivation, and their role in academic persistence and achievement (Reeve & Cheon, 2021; Ryan & Deci, 2019)
- New theory and research evidence regarding the influences of attention and persistence, mindset, mastery motivation, planning, and monitoring on academic effort and achievement (Ahmed & others, 2021; Dweck, 2019; González-Betancor, López-Puig, & Cardenal, 2021; Schunk, 2020; Wentzel, 2021)
- New presentation of a recent online growth mindset intervention in the United States and a replication of this intervention in Norway (Bettinger & others, 2018; Yeager & colleagues, 2018)
- Updated international results (2018) and statistics (comparing the United States to many other countries) for the PISA reading, math, and science achievement tests in Figure 11 (OECD, 2019)
- New Connecting Through Research box featuring researcher Lawrence Jackson's study of over 1000 Black youth across the United States on the impact of parents' expectations for academic achievement on Black boys' own academic attitudes and math achievement outcomes