

Preface

The Essentials Approach

In the view of many instructors who teach the life-span development course, the biggest challenge they face is covering all periods of human development within one academic term. My own teaching experience bears this out. I have had to skip over much of the material in a comprehensive life-span development text in order to focus on key topics and concepts that students find difficult and to fit in applications that are relevant to students' lives. I wrote *Essentials of Life-Span Development* to respond to the need for a shorter text that covers core content in a way that is meaningful to diverse students.

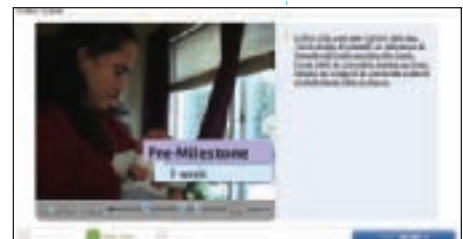
This second edition continues my commitment to a brief introduction to life-span development—with an exciting difference. Recognizing that most of today's students have grown up in a digital world, I take very seriously the need for communicating content in different ways, online as well as in print. Consequently, I'm enthusiastic about McGraw-Hill's new online assignment and assessment platform, *Connect Life-Span*, which incorporates this text and the captivating *Milestones* video modules. Together, these resources give students and instructors the essential coverage, applications, and course tools they need to tailor the life-span course to meet their specific needs.

The Essential Teaching and Learning Environment

Research shows that students today learn in multiple modalities. Not only do their work preferences tend to be more visual and more interactive, but their reading and study sessions often occur in short bursts. With shorter chapters and innovative interactive study modules, *Essentials of Life-Span Development* allows students to study whenever, wherever, and however they choose. Regardless of individual study habits, preparation, and approaches to the course, *Essentials* connects with students on a personal, individual basis and provides a road map for success in the course.

For students to succeed in the life-span development course, instruction must be engaging and student friendly. To this end, all the resources of this edition of *Essentials* were developed to engage students and help them be successful. Two resources that are new to this edition are *Milestones* and *Connect*.

Milestones is an assessable video-based program that tracks human development through each major life stage. In *Milestones of Child Development*, students can watch an individual child as he or she approaches and achieves the major developmental milestones, or for a topical view, students can compare several children on a specific milestone. *Milestones* also includes gradable, multiple-choice assessments to check students' understanding of the concepts illustrated by the videos.





In *Milestones: Transitions*, students encounter adolescents and adults reflecting on critical points in their lives. Students learn firsthand about changing perspectives on key issues, such as body image, cognitive changes, and death and dying. *Milestones: Transitions* also provides students with a series of critical-thinking exercises, allowing them to examine the differences in attitudes that arise throughout the life span.

Connect Life-Span is designed to allow students to engage with the relevant course content at their own pace, using their mobile devices. By showing students what they know, this program helps them focus on learning what they don't know. Features of *Connect Life-Span* include:

- a powerful adaptive diagnostic tool—based on thousands of hours of research on faculty and student behavior and workflow—that assesses what a student has and has not mastered, as well as how much additional study time is needed



- online assignments with immediate feedback
- the *Milestones* video program with assessment
- the ability to record class lectures that can be accessed by computer or a mobile device
- an interactive version of *Essentials of Life-Span Development* that dynamically engages students to improve learning and retention
- concise, visual snapshots of student performance
- tools that enable instructors to create and manage assignments online



Adaptive diagnostic tool helps students know what they don't know.

For instructors, the benefits of going digital include autogradable assignments and the ability to evaluate each individual student's progress at a glance, identify struggling students before the first exam, and tailor lectures, assignments, and exams accordingly. These tools enable instructors to present course content in a way that helps students learn faster and prepare better for tests.

Essential Coverage

The challenge in writing *Essentials of Life-Span Development* was determining what comprises the core content of the course. With the help of consultants and instructors who responded to surveys and reviewed the content at different stages of development, I have been able to present all of the core topics, key ideas, and most important research in life-span development that students need to know in a brief format that stands on its own merits.

The 17 short chapters of *Essentials* are organized chronologically and cover all phases of the life span, from the prenatal period through late adulthood and death. Providing a broad overview of life-span development, this edition also gives particular attention to the theories and concepts that students seem to have difficulty mastering.

Essential Applications



Applied examples give students a sense that the field of life-span development has personal meaning for them. In this edition of *Essentials* are numerous real-life applications as well as research applications for each phase of the life-span.

In addition to applied examples, *Essentials of Life-Span Development* offers applications for students in a variety of majors and career paths.

- *How Would You . . . ?* questions. Given that students enrolled in the life-span course have diverse majors, *Essentials* includes applications that appeal to different interests. The most prevalent areas of specialization are education, human development and family studies, health professions, psychology, and social work. To engage these students and ensure that *Essentials* orients them to concepts that are key to their understanding of life-span development, I asked instructors specializing in these fields to contribute *How would you . . . ?* questions for each chapter. Strategically placed in the margin next to relevant topics, these questions highlight the essential takeaway ideas for these students.
- *Careers in Life-Span Development*. This feature personalizes life-span development by describing an individual working in a career related to the chapter's focus. Chapter 2, for example, profiles Holly Ishmael, a genetic counselor. The feature describes Ms. Ishmael's education and work setting, includes a direct quote from Ms. Ishmael, discusses various employment options for genetic counselors, and provides resources for students who want to find out more about careers in genetic counseling.

How Would You...?

As a social worker, how would you help a rejected child develop more positive relationships with peers?

CAREERS IN LIFE-SPAN DEVELOPMENT

James Comer, Child Psychiatrist

James Comer grew up in a low-income neighborhood in East Chicago, Indiana, and credits his parents with leaving no doubt about the importance of education. He obtained a B.A. degree from Indiana University. He went on to obtain a medical degree from Howard University College of Medicine, a Master of Public Health degree from the University of Michigan School of Public Health, and psychiatry training at the Yale University School of Medicine's Child Study Center. He currently is the Maurice Falk Professor of Child Psychiatry at the Yale University Child Study Center and an associate dean at the Yale University Medical School. During his years at Yale, Comer has concentrated his career on promoting a focus on child development as a way of improving schools. His efforts in support of healthy development of young people are known internationally.

Comer is, perhaps, best known for the founding of the School Development Program in 1968, which promotes the col-



James Comer (left) is shown with some of the inner-city children who attend a school that became a better learning environment because of Comer's intervention.

laboration of parents, educators, and community to improve social, emotional, and academic outcomes for children.

New in This Edition

I have updated both the research and applied content significantly for this edition of *Essentials of Life-Span Development*. In addition to presenting the latest, most contemporary research in each period of human development, including more than 1,000 citations from 2009, 2010, and 2011 alone, I made the following revisions.

Chapter 1: Introduction

- Updated statistics on the percentage of U.S. children under age 18 living in poverty (Childstats.gov, 2009)
- Updated information about the Minnesota Family Investment Program (2009)
- New section, Connecting Biological, Cognitive, and Socioemotional Processes (Diamond, 2009; Diamond, Casey, & Munakata, 2011)
- New description of the rapidly emerging fields of developmental cognitive neuroscience and developmental social neuroscience to illustrate the interface of biological, cognitive, and socioemotional processes (Diamond, Casey, & Munakata, 2011)
- Expanded coverage of Bronfenbrenner's contributions (Gauvain & Parke, 2010)
- New Figure 1.10 summarizing major theories and issues in life-span development

Chapter 2: Biological Beginnings

- Expanded discussion of criticisms of evolutionary psychology
- Added material connecting the discussion of evolution and genetics
- New coverage of susceptibility (Paquette & others, 2010) and longevity genes (Bauer & others, 2010)
- New material on the concept of gene-gene interaction (Bapat & others, 2010; Chen & others, 2010)
- Description of epigenetic research on early experiences and effects on later behavior
- New section and coverage of the concept of genetic \times environment ($g \times e$) interaction (Goldman & others, 2010; Keers & others, 2010), including a recent study on the gene 5-HTTLPR (Caspers & others, 2009)
- New concluding paragraph on the interaction of heredity and environment
- New major section on brain development in the prenatal period (Nelson, 2011)
- New coverage of a link between maternal diabetes and obesity and the development of neural tube defects (Yazdy & others, 2010)
- Description of recent research on maternal smoking and inattention/hyperactivity in children (Knopik, 2009)
- New coverage of the offspring of diabetic mothers (Huda & others, 2010)
- Description of a study linking failure to take folic acid supplements in the first trimester of pregnancy with toddlers' behavioral problems (Roza & others, 2010)
- New discussion of a study on maternal depression and its link to negative prenatal and birth outcomes (Diego & others, 2009)
- Description of a study indicating positive benefits in CenteringPregnancy groups (Klima & others, 2009)
- Updated figures on the increase in preterm births in the United States (National Center for Health Statistics, 2009b)
- Significant updating of research on the role of progesterin in preventing preterm births (da Fonseca & others, 2009; Norman & others, 2009)

- Discussion of a study on the percentage of women with postpartum depression who seek help (McGarry & others, 2009)
- Updated coverage of fathers' adjustment during the postpartum period (Dietz & others, 2009; Smith & Howard, 2008)
- Coverage of a research review of the interaction difficulties of depressed mothers and their infants (Field, 2010)

Chapter 3: Physical and Cognitive Development in Infancy

- New material on the most common sleep problem in infancy (The Hospital for Sick Children & others, 2010)
- Updated and expanded coverage of SIDS, including the role of the neurotransmitter serotonin and brain stem functioning (Kinney & others, 2009)
- Expanded coverage of breast feeding (Agency for Healthcare Research and Quality, 2007; Jansen, de Weerth, & Riksen-Walraven, 2008)
- Expanded discussion of the importance of practice in learning to walk (Adolph, 2010)
- New Figure 3.12 illustrating how eye tracking is used to study early visual ability in infants (Franchak & others, 2010)
- New section on infants' perception of occluded objects (Johnson, 2010a, b, c; Bertenthal & others, 2007)
- New section, Nature, Nurture, and Perceptual Development, that examines nativist and empiricist views of perception (Amso & Johnson, 2011; Johnson, 2010a, b, c; Slater & others, 2010)
- New section on perceptual-motor coupling (Kim & Johnson, 2011)
- Much expanded coverage of the nature/nurture issue in infant cognitive development and the key issues in this area of research
- New discussion of Elizabeth Spelke's (2004; Spelke & Kinzler, 2009) core knowledge approach to cognitive development, including criticism by Mark Johnson (2008)
- Expanded conclusion about the most difficult task facing researchers in determining the influence of nature and nurture on cognitive development (Aslin, 2009)
- New Figure 3.20, summarizing how long infants of different ages can remember information (Bauer, 2009)
- Expanded discussion of concept formation and categorization in infancy and new summary statement about an infant's remarkable degree of learning power (Diamond, Casey, & Munakata, 2011; Mandler, 2009)
- Discussion of recent research on early gestures and SES disparities in child vocabulary at school entry (Rowe & Goldin-Meadow, 2009)
- New material on shared book reading and its benefits for infants and toddlers (DeLoache & Ganea, 2009)



Chapter 4: Socioemotional Development in Infancy

- Added commentary about the importance of the communication aspect of emotion in infancy (Campos, 2009)
- Expanded coverage of the onset of emotions in infancy (Kagan, 2010)
- New material on smiling in infancy (Campos, 2009; Messinger, 2008)
- Revised definition of temperament based on Campos (2009)
- Description of recent research on the interaction between temperament style and the type of child care young children experience (Pluess & Belsky, 2009)

- New material on the importance of considering the multiple temperament dimensions of children (Bates, 2008)
- New coverage of cultural variations in toddlers' mirror self-recognition (Thompson & Virmani, 2010)
- Inclusion of research on the early appearance of infants' conscious awareness of their bodies (Brownell & others, 2010)
- New section, Social Orientation and Understanding, that focuses on infants' social sophistication and insight
- Discussion of a study of maternal sensitive parenting and infant attachment security (Finger & others, 2009)
- Coverage of a meta-analysis linking three types of insecure attachment to externalizing problems (Fearon & others, 2010)
- Description of research indicating a genetic \times environment interaction between disorganized attachment, the short version of the serotonin transporter gene, and a low level of maternal responsiveness (Spangler & others, 2009)
- Expanded discussion of fathers and mothers as caregivers
- New coverage of the father's role as a caregiver in the Aka pygmy culture (Hewlett, 2000; Hewlett & MacFarlan, 2010)
- Coverage of a recent NICHD study linking early nonrelative child care and adolescent development at age 15 (Vandell & others, 2010)
- Inclusion of the following important point about the NICHD SECC research: findings consistently show that family factors are considerably stronger and more consistent predictors of a wide variety of child outcomes than are child-care experiences (quality, quantity, type)

Chapter 5: Physical and Cognitive Development in Early Childhood

- Coverage of a national study on children's eating behavior and fat intake (Center for Science in the Public Interest, 2008)
- Inclusion of a study that found children's weight at five years of age was significantly related to their weight at nine years of age (Gardner & others, 2009)
- Discussion of a study on developmental changes in the percentage of overweight children from 4 to 11 years of age depending on whether they have lean or obese parents (Semmler & others, 2009)
- Description of a study of sedentary behavior and light to vigorous physical activity in preschool children (Brown & others, 2009)
- Updated information about the WIC program and young children's nutrition (Sekhobo & others, 2010)
- Coverage of a study linking young children's exposure to second-hand smoke to sleep problems (Yolton & others, 2010)
- Coverage of research on the effectiveness of the Tools of the Mind curriculum on self-regulatory and cognitive control skills in at-risk young children (Diamond & others, 2007)
- New material on using computer exercises to improve children's attention (Jaeggi, Berman, & Jonides, 2009; Tang & Posner, 2009)
- Discussion of a study linking children's attention problems at 54 months of age with a lower level of social skills in peer relations in the first and third grades (NICHD Early Child Care Research Network, 2009)
- Description of a study on young children's narrative ability and resistance to suggestion (Kulkofsky & Klemfuss, 2008)



- Expanded coverage of theory of mind, including a new section on individual differences
- Coverage of a study of key factors in young children’s early literacy experiences in low-income families (Rodriquez & others, 2009)
- Inclusion of NAEYC’s (2009) latest guidelines for developmentally appropriate practice
- Expanded discussion of the characteristics and goals of developmentally appropriate education (Barbarin & Miller, 2009)
- New discussion of the Early Head Start program (Administration for Children & Families, 2008)
- New coverage of the effects of Project Head Start on children’s cognitive, language, and math skills and achievement (Hindman & others, 2010; Puma & others, 2010)

Chapter 6: Socioemotional Development in Early Childhood

- New coverage of Ross Thompson’s (2009a) commentary on how current research on theory of mind and young children’s social understanding challenges Piaget’s egocentrism concept
- Description of recent research on young children’s understanding of commitments to other people (Grafenhain & others, 2009)
- Discussion of a study linking young children’s understanding of emotion with their prosocial behavior (Ensor, Spencer, & Hughes, 2010)
- Reorganization of the discussion of emotional development based on expert Susan Denham’s recommendation
- Expanded discussion of advances in young children’s understanding of emotions (Cole & others, 2009)
- Coverage of a meta-analysis indicating that emotion knowledge was positively linked to social competence in 3- to 5-year olds and negatively related to their internalizing and externalizing problems (Trentacosta & Fine, 2010)
- New material on the correlational nature of studies of parenting styles and children’s development
- Expanded discussion of the effects of punishment on children
- New discussion of research on the use of mild physical punishment (Grusec, 2011)
- Updated statistics on child maltreatment in the United States (U.S. Department of Health and Human Services, 2008)
- New material on adolescent outcomes of child abuse and neglect (Wekerle & others, 2009)
- Discussion of a study linking child maltreatment with financial- and employment-related difficulties in adulthood (Zielinski, 2009)
- Coverage of a study linking coparenting to young children’s effortful control (Karreman & others, 2008)
- New material on E. Mark Cummings and his colleagues’ view of children’s emotional insecurity and interparental conflict (Cummings & Davies, 2010)
- Enhanced discussion of why pretend play is an important aspect of early childhood development (Coplan & Arbeau, 2009)
- Coverage of recent research indicating that pretend play increases young children’s self-regulation (Diamond & others, 2007)
- Expanded and updated material on social play as the main context for most young children’s interactions with peers (Coplan & Arbeau, 2009)
- Addition of Mildred Parten’s (1932) classification of children’s free play

Chapter 7: Physical and Cognitive Development in Middle and Late Childhood

- New discussion of Mark Johnson and his colleagues, (2009) view on how the prefrontal cortex likely orchestrates the functioning of other neural regions during development
- Discussion of a study on parents' roles in limiting children's sedentary activity, encouraging their exercise, and modeling exercise activities (Edwardson & Gorely, 2010)
- Coverage of a study on the effectiveness of a school-based program for increasing children's physical activity (Kriemler & others, 2010)
- Coverage of a study on the effect of fitness level on 9-year-old girls' performance on a cognitive control task (Hillman & others, 2009)
- Coverage of a large-scale U.S. study indicating a higher percentage of being overweight or obese for African American and Latino children than non-Latino White children (Benson, Baer, & Kaelber, 2009)
- Updated statistics on the percentage of children who receive special education services in the United States (National Center for Education Statistics, 2008a)
- New discussion of dysgraphia and dyscalculia
- New discussions of the brain's role in learning disabilities and ADHD, including new Figures 7.4 and 7.5
- Description of a meta-analysis indicating that behavior management treatments are effective in reducing the effects of ADHD (Fabiano and others, 2009)
- New coverage of autism spectrum disorders, including recent research and the recent increase in their occurrence or in their detection and labeling
- Expanded coverage of strategies for improving children's memory skills, including Patricia Bauer's (2009b) emphasis on improving consolidation and reconsolidation
- New material on the view that it is important for instructors to embed memory-relevant language in their teaching (Ornstein, Coffman, & Grammer, 2009; Ornstein & others, 2010)
- Expanded discussion of children's creative thinking, including research indicating a decline in creative thinking by U.S. schoolchildren and increased interest in teaching creative thinking in Chinese schools (Kim, 2010; Plucker, 2010)
- New material on the latest revision of the Stanford-Binet test, the Stanford-Binet 5
- Added new conclusion to the section on heredity/environment and intelligence and tied the conclusion to the nature/nurture issue first discussed in Chapter 1
- New discussions of the roles of nature/nurture and domain-specific aspects of giftedness
- Inclusion of commentary by Bill Gates about domain-specific giftedness
- New material on the complexity of second-language learning (Thomas & Johnson, 2008)
- Coverage of a research review indicating that bilingual children have lower formal language proficiency than monolingual children (Bialystok & Craik, 2010)



Chapter 8: Socioemotional Development in Middle and Late Childhood

- Inclusion of a study of self-regulation in children from low-income families (Buckner, Mezzacappa, & Beardslee, 2009)
- Coverage of a study on the increase in self-control in middle and late childhood and its link to lower levels of deviant behavior (Vazsonyi & Huang, 2010)

- Updated coverage of children’s outcomes following a disaster (Kar, 2009)
- Updated conclusions about whether gender differences in moral orientation are as strong as Gilligan suggests (Blakemore, Berenbaum, & Liben, 2009)
- Expanded discussion of developmental changes in gender stereotypes (Blakemore, Berenbaum, & Liben, 2009)
- New summary of sex differences in the brain emphasizing caution in interpreting differences (Blakemore, Berenbaum, & Liben, 2009)
- Added commentary that any sex differences in the brain could be due to biological origins of the differences, behavioral experiences, or a combination of these factors
- Coverage of a recent large-scale assessment of a gender difference in writing (National Assessment of Educational Progress, 2007) and lack of a difference in math (Hyde & others, 2008)
- Discussion of a recent study indicating that relational aggression increases in middle and late childhood (Dishion & Piehler, 2009)
- Inclusion of information from a recent research review that girls engage in more relational aggression than boys in adolescence but not in childhood (Smith, Rose, & Schwartz-Mette, 2010)
- Description of a recent study linking parents’ psychological control to a higher incidence of relational aggression in their children
- Updated description of gender differences in emotion (Blakemore, Berenbaum, & Liben, 2009)
- Description of a longitudinal study of children from ages 6 to 13 linking lack of reciprocal friendship to loneliness and depressed feelings in early adolescence (Pedersen & others, 2007)
- Description of three recent suicides in middle and late childhood and early adolescence that likely were influenced by bullying (Meyers, 2010)
- New emphasis on the importance of contexts in the study of bullying (Salmivalli & Peets, 2009; Schwartz & others, 2010)
- Coverage of two recent studies of bullies’ popularity in the peer group (Veenstra & others, 2010; Witvliet & others, 2010)
- Description of a recent study on peer victimization and the extent of its link to lower academic achievement (Nakamoto & Schwartz, 2010)
- Coverage of a recent study on neighborhood disadvantage and child outcomes such as behavior problems and low verbal ability (Kohen & others, 2008)
- Description of a recent study linking chronic poverty to adverse cognitive development outcomes in children (Najman & others, 2009)
- New discussion of the recent results from the large-scale international assessment of fourth-grade students’ math and science scores with a focus on how U.S. students compare to students in other countries (TIMSS, 2008)
- New coverage of Carol Dweck’s recent research and ideas on improving students’ growth mindset by teaching them about the brain’s plasticity and how the brain changes when you put considerable effort into learning (Blackwell & others, 2007; Dweck & Master, 2009)
- New discussion of Carol Dweck’s recent development of computer modules, called “Brainology,” that explain how the brain works and how through work and effort students can make their brain work better (Blackwell & Dweck, 2008; Dweck & Master, 2009)



Chapter 9: Physical and Cognitive Development in Adolescence

- New discussion of precocious puberty (Blakemore, Berenbaum, & Liben, 2009)
- Inclusion of recent information that early-maturing girls are less likely to graduate from high school and more likely to cohabit and marry earlier (Cavanagh, 2009)

- New discussion of the pruning of synapses and what this means by the end of adolescence (Kuhn, 2009)
- New description of how the information about changes in the adolescent brain reflect the rapidly emerging field of developmental social neuroscience
- Updated information about causes of adolescent deaths in the United States (National Vital Statistics Reports, 2008)
- Description of a recent national study on the percentage of U.S. high school students who were currently sexually active (Eaton & others, 2008)
- Coverage of a recent study of adolescents' sexual experience and having multiple sexual partners from 1991 to 2007 (Santelli & others, 2009)
- Coverage of a recent study that revealed a link between maternal communication about sex and a reduction in risky sexual behavior by Latino adolescents (Trejos-Castillo & Vazsonyi, 2009)
- Discussion of a recent study that linked alcohol use, early menarche, and poor parent-child communication to early sexually intimate behavior in girls (Hipwell & others, 2010)
- Coverage of a recent study of early initiation of sexual intercourse in five countries (Madkour & others, 2010)
- Description of recent research on early sexual intercourse and subsequent grades (Wheeler, 2010)
- Description of recent research linking deviant peer relations in early adolescence with an increase in multiple sexual partners at age 16 (Lansford & others, 2010)
- Coverage of a recent study of middle school students indicating that better academic achievement was a protective factor in keeping boys and girls from engaging in early initiation of sexual intercourse (Lafin & others, 2008)
- Coverage of recent studies that revealed higher condom use by European adolescents than U.S. adolescents (Currie & others, 2008; Santelli, Sandfort, & Orr, 2009)
- Coverage of the reversal in increase of births to adolescents with a decline in 2007 and 2008, and a new Figure 9.3 (Hamilton, Martin, & Ventura, 2010)
- Discussion of the high fertility rate of Latina adolescents and comparison of their recent adolescent pregnancy and birth rates with other ethnic groups (Santelli, Abraido-Lanza, & Melnikas, 2009)
- New coverage of information comparing ethnic groups on the likelihood of having a second child in adolescence (Rosengard, 2009)
- Description of a national study documenting the high percentage of daughters of teenage mothers who become pregnant themselves as teenagers, and other risk factors in the daughters' lives for becoming pregnant (Meade, Kershaw, & Ickovics, 2008)
- Updated coverage of the increasing evidence that abstinence-only programs do not reduce adolescent pregnancy (Hentz & Fields, 2009)
- Updating of the trends in the percentage of U.S. adolescents who ate fruits and vegetables on a regular basis (Eaton & others, 2008)
- Coverage of a recent study of the role of peers in adolescent smoking (Holliday, Rothwell, & Moore, 2010)
- Discussion of a recent study on eating regular family meals and healthy eating patterns five years later (Burgess-Champoux & others, 2009)
- Discussion of a recent study linking low levels of exercise to depressive symptoms in young adolescents (Sund, Larsson, & Wichstrom, 2010)



- Description of a recent study that found vigorous physical activity was related to lower drug use in adolescents (Delisle & others, 2010)
- Coverage of a recent national study of adolescent sleep patterns, including developmental changes from the 9th through the 12th grade (Eaton & others, 2008)
- Updated coverage of the Monitoring the Future study's assessment of drug use by secondary school students (Johnston & others, 2010)
- Coverage of recent research that found parental monitoring was linked to lower substance abuse in adolescence (Tobler & Komro, 2010)
- Description of a recent research review that indicated adolescents who more frequently ate dinner with their family were less likely to have various problems (Sen, 2010)
- Expanded coverage of the pruning of synapses and what this means by the end of adolescence (Kuhn, 2009)
- Revised coverage of the personal fable based on recent research that indicates many adolescents perceive that they will experience an early death (Fischhoff & others, 2010; Reyna & Rivers, 2008)
- Expanded introduction to information processing and thinking in adolescence based on Deanna Kuhn's (2009) recent view on differences in childhood and adolescent cognitive development
- Updated statistics on school dropouts, including the substantial decrease in Latino dropouts since 2000 (National Center for Education Statistics, 2008b)

Chapter 10: Socioemotional Development in Adolescence

- Expanded and updated description of why college often stimulates a greater integration of identity at a higher level (Phinney, 2008)
- Coverage of a recent meta-analysis of 127 studies focused on developmental changes in Marcia's identity statuses (Kroger, Martinussen, & Marcia, 2010)
- Discussion of a recent study of Latino youth indicating a link between growth in identity exploration and an increase in self-esteem (Umana-Taylor, Gonzales-Backen, & Guimond, 2009)
- New information about Latino parents monitoring their daughters more closely than do non-Latino parents (Allen & others, 2008)
- Discussion of Joseph Allen and his colleagues' (2009) recent research linking secure attachment at age 14 with positive outcomes at age 21
- Description of a recent analysis that concluded that the most consistent outcomes of secure attachment in adolescence involve positive peer relations and the development of emotion regulation capacities (Allen & Miga, 2010)
- New material on which adolescents are most likely to conform to their peers (Prinstein & others, 2009)
- New coverage of three stages in the development of romantic relationships in adolescence (Connolly & McIsaac, 2009)
- New description of the percentage of adolescents who are early and late bloomers in developing romantic relationships (Connolly & McIsaac, 2009)
- Coverage of a recent study of adolescents' romantic experience and links to various aspects of adjustment (Furman, Lo, & Ho, 2009)
- Description of a recent study indicating that romantic involvement predicted an increase in depressive symptoms in adolescence (Starr & Davila, 2009)



- New section, The Media, that focuses on the dramatic increases in adolescents' media multitasking and Internet use (Roberts, Henrikson, & Foehr, 2009)
- New information about youths' communication with strangers on the Internet and cyberbullying (Subrahmanyam & Greenfield, 2008)
- Description of recent research indicating that many Internet sex crimes against minors involve social networking sites in some way (Mitchell & others, 2010)
- Coverage of a recent study linking parents' lack of knowledge of their young adolescents' whereabouts and the adolescents' engagement in delinquency later in adolescence (Lahey & others, 2008)
- Discussion of a recent study implicating harsh discipline at 8 to 10 years of age as a predictor of which adolescent delinquents would persist in criminal activity after age 21
- Coverage of a recent study of engaged parenting in low-income, urban families and its link to a lower level of delinquency (Ghazarian & Roche, 2010)
- Inclusion of new material on the roles of peers and schools in juvenile delinquency (Brown & Larson, 2009; Crosnoe & others, 2008)
- Description of a recent study on the positive influence of school connectedness in lowering conduct problems in early adolescence (Loukas, Roalson, & Herrera 2010)
- Coverage of recent estimates of the incidence of depression in adolescence (Graber & Sontag, 2009)
- Description of a recent study of mother-adolescent co-rumination and its link to adolescents' depression (Waller & Rose, 2010)
- Discussion of a recent study of young adolescents' friendships and depression (Brennden & others, 2010)
- Description of a recent study using data from the National Longitudinal Study of Adolescent Health that found a number of risks for suicidal behavior (Thompson, Kuruwita, & Foster, 2009)
- Description of a recent study on alcohol, depression, and suicide attempts in adolescence (Schilling & others, 2009)
- Inclusion of recent research on suicide attempts by young Latinas (Zayas & others, 2010)

Chapter 11: Physical and Cognitive Development in Early Adulthood

- Discussion of a recent study of more than 17,000 young adults in 21 countries that focused on links between health behavior and life satisfaction (Grant, Wardle, & Steptoe, 2009)
- Updated coverage of overweight and obesity, including projections of the percentage of Americans who will be overweight in 2030 (Beydoun & Wang, 2009)
- Coverage of a recent meta-analysis linking obesity with depression in women but not men (de Wit & others, 2010)
- Updated discussion of dieting including a recent research review of diet-plus-exercise in weight loss (Wu & others, 2009)
- Coverage of a recent study of the percentage of college students who abstain from drinking alcohol (Huang & others, 2009)
- New coverage of pregaming and gaming as becoming increasingly common rituals on college campuses, including recent research (DeJong, DeRicco, & Schneider, 2010; Ham & others, 2010; Read, Merrill, & Bytschkow, 2010)
- Updated material on trends in binge drinking by emerging adult women (Johnston & others, 2008)

- Inclusion of a recent meta-analysis of studies on gender differences in sexuality (Petersen & Hyde, 2010)
- New discussion of the positive role of sexuality in well-being, including recent research (Brody & Costa, 2009)
- Expanded coverage of causes of homosexual behavior, including a recent large-scale study in Sweden (King, 2011; Langstrom & others, 2010)
- Updated description of HIV and AIDS in the United States (National Center for Health Statistics, 2010b)
- Updated discussion of HIV and AIDS around the world, especially in sub-Saharan Africa (Campbell, 2009; UNAIDS, 2009)
- Discussion of recent research on a link between men's sexual narcissism and their sexual aggression (Widman & McNulty, 2010)
- New description of the red zone on college and university campuses and the time in their college years when women are most likely to have unwanted sexual experiences (Kimble & others, 2008)
- New discussion of Phyllis Moen's (2009a) view of the career mystique and how it has changed in recent years
- New coverage of the application of William Damon's (2008) ideas in *The Path to Purpose* to career development
- Updated coverage of the percentage of full-time U.S. college students who are employed (National Center for Education Statistics, 2008c)
- New section on unemployment, including information about the recent financial meltdown and recession
- Expanded discussion of issues involved in dual-earner couples based on Phyllis Moen's (2009a, b) recent views
- Updated gender and ethnicity data on the U.S. labor force projected through 2016 (Occupational Outlook Handbook, 2010–2011)

Chapter 12: Socioemotional Development in Early Adulthood

- Revised and updated discussion of adult attachment styles
- Updated and expanded material on the stability of adult attachment styles
- Discussion of recent research on links between anxious and avoidant attachment styles and various health problems (McWilliams & Bailey, 2010)
- Coverage of a recent analysis that revealed a link between insecure attachment in adults and depression (Bakersman-Kranenburg & van IJzendoorn, 2009)
- Description of a recent study linking recent secure attachment to parents with ease in forming friendships in college (Parade, Leerkes, & Blankson, 2010)
- Expanded description of adult friendships including the percentage of men and women who have a best friend and opportunities for making new friendships in adulthood (Blieszner, 2009)
- Coverage of a longitudinal study that linked emotional intimacy in early adulthood with marital adjustment in middle adulthood (Boden, Fischer, & Niehuis, 2010)
- Discussion of recent research documenting that in their twenties women display greater emotional intimacy with a closest other than do men (Boden, Fischer, & Niehuis, 2010)
- Updated coverage of the dramatic increase in the number of people who cohabit in the United States, including an updated Figure 12.2 (Popenoe, 2009)



- Description of a recent study on the percentage of women who cohabited before age 24
- Coverage of a recent study indicating that cohabiting women experience an elevated risk of partner violence (Brownridge, 2008)
- Description of a recent meta-analysis of links between cohabitation and marital quality/stability (Jose, O’Leary, & Moyer, 2010)
- Discussion of recent research that found a link between cohabitation prior to becoming engaged and negative marital outcomes for first marriages but not second marriages (Stanley & others, 2010)
- Updated coverage of the continuing decline in the rate of marriage in the U.S. from 2007 to 2009 (National Vital Statistics Reports, 2010)
- Updated statistics on the age of first marriage in the United States (U.S. Census Bureau, 2008b)
- Updated information on the percentage of married persons age 18 and older with “very happy” marriages, including an updated Figure 12.3 (Popenoe, 2009)
- Updated coverage of the age of first marriage in countries around the world (Waite, 2009)
- Expanded and updated discussion on the benefits of a good marriage, including a recent study on a lower proportion of time spent in marriage being linked to a likelihood of earlier death (Henretta, 2010)
- Updated coverage on the resumption of a decline in the rate of divorce in the U.S. from 2007 to 2009 following an increase from 2005 to 2007 (National Vital Statistics Reports, 2010)
- Updated percentage of divorced U.S. men and women: 1950 to 2007, including an updated Figure 12.4 (Popenoe, 2009)
- New description of partner characteristics that are linked to divorce (Hoelter, 2009)
- New material on the characteristics and timing of adults who get remarried (Sweeney, 2009, 2010)
- Updated and expanded discussion of the benefits and problems that characterize remarriage (Waite, 2009)
- Coverage of recent research on gender similarities and differences in relationships, including overall talk and relationship talk (Newman & others, 2008)

Chapter 13: Physical and Cognitive Development in Middle Adulthood

- Expanded commentary about time perspective in middle adulthood (Settersson, 2009)
- New material on the concept of *age identity* and the consistent finding that as adults get older their age identity is younger than their chronological age (Westerhof, 2009)
- New discussion of metabolic syndrome, including a recent meta-analysis of its link to all-cause mortality (Hui, Liu, & Ho, 2010)
- Updated information about the cause of death in middle adulthood with cancer recently replacing cardiovascular disease as the leading cause of death in middle adulthood (National Center for Health Statistics, 2008a)
- New description of later menopause being linked to increased risk of breast cancer (Mishra & others, 2009)
- Description of recent analyses confirming a link between combined estrogen/progestin hormone therapy and increased risk of cardiovascular disease (Toh & others, 2010)



- Coverage of recent research studies in a number of countries indicating that coinciding with the decrease in HRT in recent years has been a related decline in breast cancer (Dobson, 2009; Parkin, 2009)
- New material on possible alternatives to HRT
- New material on a recent large-scale study of the main sexual problems reported by U.S. men and women age 40 to 80 (Laumann & others, 2009)
- Description of the increasing evidence that religion has a positive link to health (McCullough & Willoughby, 2009)
- Coverage of a recent study indicating that certain aspects of religion are related to lower levels of worry, anxiety, and depressive symptoms (Rosmarin, Krumrei, & Andersson, 2009)
- New material on the factors that shape an individual's exploration of meaning in life and whether developing a sense of meaning in life is linked to positive developmental outcomes (Krause, 2008, 2009)

Chapter 14: Socioemotional Development in Middle Adulthood

- New discussion of a recent study linking generativity with positive social engagement in such contexts as family life and community involvement (Cox & others, 2010)
- New material on the change in personality traits being more positive in middle age (Roberts & Mroczek, 2008)
- New coverage of a recent study on changes in marital satisfaction in middle age and aspects of the empty nest syndrome (Gorchoff, John, & Helson, 2008)
- Description of research on marital satisfaction in octogenarians and its ability to protect their happiness from daily fluctuations in perceived health (Waldinger & Schulz, 2010)
- Updated statistics on the percent of older adult women and men who are divorced or separated (U.S. Census Bureau, 2010)
- Expanded discussion of divorce in late adulthood, including cohort effects and gender differences (Peek, 2009)
- Added commentary about the percentage of older adults who cohabit likely to increase as baby boomers enter late adulthood



Chapter 15: Physical and Cognitive Development in Late Adulthood

- New discussion of the evolutionary theory of aging in the section on biological theories of aging (Austad, 2009; Kittas, 2010)
- New material on the role that telomerase might play in extending life (Effros, 2009)
- New material on the current consensus that under normal conditions it is unlikely that adults lose brain cells per se (Nelson, 2008)
- Coverage of recent information that new brain cells survive longer when rats are cognitively challenged to learn something (Shors, 2009)
- Description of recent research indicating links between aerobic fitness, greater volume in the hippocampus, and better memory (Erickson & others, 2009)
- Inclusion of a recent study on a link between exercise and frailty (Peterson & others, 2009)



- Description of a recent study in which exercise capacity and walking were the best predictors of mortality in older adults with cardiac dysfunction (Reibis & others, 2010)
- Coverage of recent research on obesity and mobility restrictions in older adults (Houston & others, 2009)
- Discussion of a recent large-scale study of 57- to 85-year-olds on links between sexual activity and health, including gender differences (Lindau & GavriloVA, 2010)
- Inclusion of recent research linking visual decline in older adults with a lower level of cognitive functioning (Clay & others, 2009)
- Discussion of recent research indicating that less frequent social activity in older adults was linked to more rapid loss of motor function (Buchman & others, 2009)
- Inclusion of recent research on a link between the frailty of older adults and their SES status (Szanton & others, 2010)
- Description of the percentage of individuals age 80 and older who experience a significant reduction in the sense of smell (Lafreiere & Mann, 2009)
- Inclusion of information about a recent study of sexual activity in older adults (Lindau & others, 2007)
- Discussion of cancer replacing cardiovascular disease as the leading cause of death in 65- to 74-year-olds (National Center for Health Statistics, 2008a)
- Description of a recent study linking exercise with a lower risk of falling and fewer falling incidents in older adults (Yokoya, Demura, & Sato, 2009)
- Coverage of a recent high-intensity strength training program for arthritis patients (Flint-Wagner & others, 2009)
- Inclusion of a recent study on a link between systolic blood pressure during exercise and increased long-term survival (Hedberg & others, 2009)
- Discussion of a recent study of more than 11,000 women that found low cardiorespiratory fitness was a significant predictor of all-cause mortality (Farrell & others, 2010)
- Coverage of a recent analysis of the effectiveness of strength training with older adults (Peterson & others, 2010)
- Coverage of a recent study of caloric restriction and verbal memory in older adults (Witte & others, 2009)
- Expanded discussion of working memory and aging, including explanation of deficits in working memory in older adults because of their less efficient inhibition in preventing irrelevant information from entering working memory and their increased distractibility (Lustig & Hasher, 2010; Rowe, Hasher, & Turcotte, 2010)
- Description of recent research indicating that when older adults engage in cognitively stimulating activities, the onset of rapid memory decline is delayed (Hall & others, 2009)
- Coverage of a recent study that found older adults engaged in superior reasoning about social conflicts than young and middle-aged adults (Grossman & others, 2010)
- Coverage of a recent research review on cognitive coordination of skills in older adults (Hertzog & others, 2009)
- Coverage of a recent study linking education to cognitive abilities in older adults, and how, for older adults with less education, engaging in cognitive activities improves episodic memory (Lachman & others, 2010)
- Discussion of a recent study on differences in connectivity between brain regions in younger and older adults (Leshikar & others, 2010)
- Expansion and updating of a number of aspects of depression in older adults based on a recent review (Fiske, Wetherell, & Gatz, 2009)
- Updated coverage of the estimated risk for developing dementia in women and men age 85 and older (Alzheimer's Association, 2010)

- Updated description of the percentage of individuals estimated to develop Alzheimer disease in the next 10 years at age 65, 75, and 85 for women and men, including a new Figure 15.7 (Alzheimer’s Association, 2010)
- New coverage of why it is important to focus on biological and environmental risk factors, preventive strategies, and maintenance of cognitive reserves in middle adulthood in research on Alzheimer disease
- New discussion of the role that oxidative stress might play in Alzheimer disease (Bonda & others, 2010; Di Bona & others, 2010)
- New coverage of why it is important to focus on biological and environmental risk factors, preventive strategies, and maintenance of cognitive reserves in middle adulthood in research on Alzheimer disease
- New coverage of a research review indicating that fMRI measurement of neuron loss in the medial temporal lobe predicts memory loss and eventually dementia (Vellas & Aisen, 2010)
- Expanded discussion of drug treatment for Alzheimer disease, including recent indications of how effective the drugs are
- Inclusion of estimates of the percentage of individuals age 65 and older who have mild cognitive impairment (MCI) (Alzheimer’s Association, 2010)
- Expanded coverage of MCI, including the use of fMRI scans with individuals who have MCI to predict which of these individuals are likely to develop Alzheimer disease
- Inclusion of information that the Federal Drug Administration has yet to approve any drugs for the treatment of MCI
- Updated coverage of new treatments for Parkinson disease, including stem cell research (Fricker-Gates & Gates, 2010)
- New discussion of research indicating that certain types of dance, such as the tango, can improve the motor skills of individuals with Parkinson disease (Hackney & Earhart, 2010a, b)

Chapter 16: Socioemotional Development in Late Adulthood

- Inclusion of recent research on institutionalized older adults that revealed that reminiscence therapy increased life satisfaction and reduced depression (Chiang & others, 2010)
- Discussion of a recent study that found a life-review course, “Looking for Meaning,” reduced middle-aged and older adults’ depressive symptoms (Pot & others, 2010)
- New discussion and recent research on life regrets as part of a life review (Choi & Jun, 2009)
- Coverage of a recent study of the components of conscientiousness that increased in the transition to late adulthood (Jackson & others, 2009)
- New material linking several “big five” personality factors to greater longevity (Iwasa & others, 2008)
- Added commentary about the burden and stress placed on many older adults because of the recent economic crisis (Keister & Destro, 2009)
- Updated data on the percentage of older adults living in poverty (U.S. Census Bureau, 2010)
- Coverage of a recent study indicating that low SES increases the risk of death in older adults (Krueger & Chang, 2008)



- Discussion of recent research on frequency of computer use in older adults and cognitive functioning (Tun & Lachman, 2010)
- Description of research on marital satisfaction in octogenarians and its ability to protect their happiness from daily fluctuations in perceived health (Waldinger & Schulz, 2010)
- Updated statistics on the percentage of older adult women and men who are divorced or separated (U.S. Census Bureau, 2010)
- Expanded discussion of divorce in late adulthood, including cohort effects and gender differences (Peek, 2009)
- Added commentary about the percentage of older adults who cohabit likely to increase as baby boomers enter late adulthood
- Expanded material on friendship in older adults, including comparison of the friendships of young adults and older adults (Zettel-Watson & Rook, 2009)
- Expanded description of loneliness and comparison of loneliness in younger and older adults (Schnittker, 2007; Koropecj-Cox, 2009)
- Coverage of a recent study in which loneliness predicted increased blood pressure four years later in middle-aged and older adults (Hawkey & others, 2010)
- Inclusion of information about a 12-year longitudinal study linking persistently low or declining feelings of usefulness to others and a higher risk of dying at a younger age (Gruenewald & others, 2009)
- Description of a recent analysis indicating that volunteering doesn't decline significantly until the mid-seventies (Morrow-Howell, 2010)
- Discussion of recent research on whether it is better for an older adult's well-being to give or to receive social support (Thomas, 2010)
- Description of a recent study in which volunteering was linked to less frailty in older adults (Jung & others, 2010)
- Expanded and updated discussion of volunteering, including recent information about developmental changes in volunteering (Burr, 2009)

Chapter 17: Death, Dying, and Grieving

- New information that discusses how most of what we know about death, dying, and grieving is based on older adults because older adults account for approximately two-thirds of the 2 million deaths each year in the United States
- Discussion of a recent study of contradictions in individuals' end-of-life decisions about themselves and relatives (Sviri & others, 2009)
- Coverage of a recent study of the percentage of patients who had a living will and had discussed health-care wishes with their family
- Inclusion of a recent Dutch study of euthanasia, including the percentage of dying persons who requested it and the percentage whose request was granted (Onwuteaka-Philipsen & others, 2010)
- Added commentary in the coverage of what constitutes a good death (Carr, 2009)
- Update on the countries and states in the United States that allow euthanasia (Smets & others, 2010; Watson, 2009)
- Coverage of a recent study indicating that as individuals move closer to death, they become more spiritual
- Added commentary about how difficult the coping process is for parents following the death of a child (Edwards & others, 2009)
- New discussion of prolonged grief and disenfranchised grief
- Description of recent research on aspects of death most likely to be linked to prolonged grief (Fujisawa & others, 2010)

- Inclusion of a recent study of a decrease in the life satisfaction over time in individuals age 80 and older whose spouse has died (Berg & others, 2009)
- Description of a recent study on meaning in life and anger in bereaved spouses (Kim, 2009)
- New information about the percentage of women and men ages 65 and older who are widowed in the United States (Administration on Aging, 2009)
- Updated information about the significant increase in the percentage of Americans who are cremated (Cremation Association of North America, 2008)
- Discussion of trends in death, mourning, and funerals (Callahan, 2009)

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Life-Span Symposium

In the spring of 2010, McGraw-Hill held a symposium on life-span development for instructors from across the country. This event provided a forum for instructors to exchange ideas and experiences with colleagues they might not have met otherwise. It was also an opportunity for editors from McGraw-Hill to gather information about the needs and challenges of instructors of life-span development. The feedback we received has been invaluable and has contributed to the development of this edition of *Essentials of Life-Span Development*. We would like to thank the participants for their insights.

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Instructor and Student Resources

The resources listed here may accompany *Essentials of Life-Span Development*, Second Edition. Please contact your McGraw-Hill representative for details concerning policies, prices, and availability.

Instructor Resources

The instructor side of the **Online Learning Center** at <http://www.mhhe.com/santrockessls2e> contains the following instructor resources. Ask your local McGraw-Hill representative for your password.

- **Instructor's Manual**
- **Test Bank and Computerized Test Bank**
- **PowerPoint Slides**
- **McGraw-Hill's Visual Asset Database for Lifespan Development (VAD 2.0)**
www.mhhe.com/vad

Create Craft your teaching resources to match the way you teach! With McGraw-Hill Create, www.mcgrawhillcreate.com, you can easily rearrange chapters, combine material from other content sources, and quickly upload content you have written, like your course syllabus or teaching notes. Find the content you need in Create by searching through thousands of leading McGraw-Hill textbooks. Arrange your book to fit your teaching style. Create even allows you to personalize your book's appearance by selecting the cover and adding your name, school, and course information. Order a Create book and you'll receive a complimentary print review copy in 3–5 business days or a complimentary electronic review copy (eComp) via email in about one hour. Go to www.mcgrawhillcreate.com today and register. Experience how McGraw-Hill Create empowers you to teach your students your way.

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Tegrity Tegrity Campus is a service that makes class time available all the time by automatically capturing every lecture in a searchable format for students to review when they study and complete assignments. With a simple one-click start and stop process, you capture all computer screens and corresponding audio. Students replay any part of any class with easy-to-use browser-based viewing on a PC or Mac. Educators know that the more students can see, hear, and experience class resources, the better they learn. With Tegrity Campus, students quickly recall key moments by using Tegrity Campus's unique search feature. This search helps students efficiently find what they need when they need it across an entire semester of class recordings. Help turn all your students' study time into learning moments immediately supported by your lecture.

Student Resources

Adaptive Diagnostic Tool This diagnostic tool is an unparalleled, intelligent learning system based on cognitive mapping that *diagnoses* your students' knowledge of a particular subject and then creates an individualized learning path geared toward student success in your course. It offers individualized assessment by delivering appropriate learning material in the form of questions at the right time, helping students attain mastery of the content. Whether the system is assigned by you or used independently by students as a study tool, the results can be recorded in an easy-to-use grade report that allows you to measure student progress at all times and coach your students to success.

As an added benefit, all content covered in this adaptive diagnostic is tied to learning objectives for your course so that you can use the results as evidence of subject mastery. This tool also provides a personal study plan that allows the student to estimate the time it will take and number of questions required to learn the subject matter. Your students will learn faster, study more efficiently, and retain more knowledge when using *Essentials of Life-Span Development*.

The Milestones Program Our new assessable video-based program tracks human development through each major life stage. Starting from infancy, students will watch each baby grow and achieve the major developmental milestones such as balance, development of fine motor control, and social interactions. The program continues through adulthood, capturing attitudes toward issues such as family, sexuality, and death and dying.