

Early Childhood: Biosocial Development

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Suggested Activities

Introducing Early Childhood: Biosocial Development

“On Your Own” Activity: Developmental Fact or Myth?

Before students read about biosocial development during early childhood, have them respond to the true-false statements in Handout 1.

The correct answers are shown below. Class discussion can focus on the origins of any developmental misconceptions that are demonstrated in the students' incorrect answers.

1. T 2. T 3. T 4. F 5. F 6. T 7. F 8. T 9. F 10. T

Teaching Tip: Using Humor in the Classroom

It has been said that the greatest sin in teaching is to be boring. To avoid that disastrous situation, many instructors believe that occasional, appropriate use of humor in the classroom can increase student attention, promote learning, and create a more open atmosphere that reduces academic anxiety. Classroom humor is not limited to jokes and funny stories; it can include props, anecdotes, riddles, music, video clips, and cartoons. Here are a few tips and guidelines for effectively using humor in the classroom.

Humor Should Not Be Hurtful or Offensive. Humor that furthers teaching is nonhostile. Consideration of what your students may have experienced should help you decide what subject matter lends itself to appropriate humor. Your class may include students who are struggling with eating disorders, who have been in abusive relationships, who have had a loved one unexpectedly die, or who have experienced or are experiencing other major problems. Before using humor, ask yourself, “Will this use of humor alienate or embarrass any of my students?” If the answer is “yes,” try a different strategy to get the point across.

Make Humor Relevant. Humor in the classroom works best when it is connected to concepts being studied. Ted Powers offers this example, “If a class is inattentive and an instructor tells a joke like, Did you hear about the termite who walked into the saloon? The first thing he asked was, ‘where’s the bar tender?’ that instructor may have regained the attention of the students, but no learning occurred. On the other hand, if an instructor tells that joke and follows it with a discussion of the role of top-down processing and context in communication (bar tender and bartender sound alike—how do we know when it is two words and when it is one?), then the humor facilitates learning.”

Be Yourself. Eddie Murphy would probably not be funny trying to be like Robin Williams. So, too, each instructor needs to find an approach to humor that fits who he or she is. A good way is to use yourself as an example, whenever possible. If you have a funny personal experience that can help explain a concept, tell

it. Don’t be afraid to be funny, or to make a fool of yourself. Self-disclosure helps create an open atmosphere in the class. It can also promote class discussion from students who avoid asking questions because they fear being embarrassed.

Powers, T. (2005, December). Engaging students with humor. *Association for Psychological Science Observer*, 18(12). www.psychologicalscience.org/teaching/tips.

Teaching Tip: Keeping Students Engaged With Reading Quizzes

Because there is so much information to cover in a life-span development course, your students may actually appreciate having regularly scheduled reading quizzes throughout the term. Regular, announced quizzes are an excellent way to help ensure that student keep up with the class reading. Graded quizzes also motivate students to attend class regularly. Quizzes need not be extensive; even 5 to 10 multiple-choice questions that hit chapter high points can be effective. An easy way to generate these quizzes is by using the end-of-chapter summaries and “What Have You Learned?” questions in the textbook. Another effective strategy is to add one or more bonus questions based on something mentioned in a previous class (for example, a student’s question or comment).

AV: The Journey Through the Life Span, Program 4: Early Childhood

Program 4 (24:25) introduces the developing person during early childhood. The first segment of the program, physical development (3:20), begins by outlining the changes in size, weight, and shape that accompany the loss of baby fat. The development of gross motor and fine motor skills is described, focusing on the importance of the underlying processes of brain growth and myelination that enable difficult tasks such as fastening buttons and enjoying arts and crafts.

The second segment, cognitive development (14:00), begins by describing young children’s understanding of numbers and the ability to count. Unlike older children, however, young children have not developed effective strategies for remembering. The prompted scripts that adults use to stimulate memory development in young children are depicted. Charles Nelson of the University of Minnesota differentiates the explicit and implicit systems of memory, focusing on the underlying development of the brain’s hippocampus and other areas that enable long-term memory. The egocentrism of the typical 4-year-old is depicted as Tom attempts to describe to Jonah, who is in another room, which tools to use to fix their space station. Piaget’s conservation task is depicted. Lev Vygotsky’s notion of the zone of proximal development is explained. Barbara Rogoff of the University of California, Santa Cruz, discusses the importance of learning in a cultural context by contrasting her findings in studies of guided participation and learning in Mayan children and European American children. The

segment concludes by discussing the development of grammar and the fast-mapping of new vocabulary words in young children.

The discussion of language development segues into the third segment of the unit: social development (6:05). Anne Peterson of the Kellogg Foundation differentiates the authoritative, authoritarian, and laissez-faire styles of parenting. The importance of the surrounding environment in determining the appropriateness of different parenting styles is explored as Gina Morelli of Boston College contrasts these parenting styles with those of the Efe people of Africa. The conversation and play behavior of young children are used to demonstrate that, despite the efforts of some adults to de-emphasize gender differences, children still develop some gender stereotypes. The evolution and importance of mastery play, sociodramatic play, rough-and-tumble play, and parallel play are depicted, as are gender differences in the nature of play.

The observation module is divided into four segments, each focused on the importance of play. In the first segment (1:10), three young children, who range from 2 years 4 months to 3 years 2 months of age, are playing with toy trains. The second segment (5:50) illustrates the self-imposed gender segregation of young children playing with dolls, play food, and books. In the third segment (1:30), several children, between 4 and 5 years of age, are seen teasing a boy of similar age. In the fourth segment (1:35), two boys, who are 3½ to 4 years of age, can't agree on an activity.

AV: Transitions Throughout the Life Span, Program 8: Playing and Growing

Program 8 introduces the developing person between the ages of 2 and 6. The program begins by outlining the changes in size and shape that occur from ages 2 through 6. This is followed by a look at brain growth and development and its role in the development of physical and cognitive abilities. The program also addresses the important issues of injury control and accidents, the major cause of childhood death in all but the most disease-ridden or war-torn countries. A description of the acquisition of gross and fine motor skills follows, noting that mastery of such skills develops steadily during the play years along with intellectual growth. The program concludes with an in-depth exploration of child maltreatment, including its prevalence, contributing factors, consequences for future development, treatment, and prevention.

Body Changes

Growth Patterns

AV: Biological Growth: Nature's Child (60 min., Insight Media)

Focusing on the nature–nurture controversy, this program examines the relative influences of genes and

environment on intelligence, temperament, and personality.

AV: Physical Development (21 min., CRM/McGraw-Hill)

This film provides an overview of physical growth from infancy to adolescence. Because it includes information about puberty, it could be shown with biosocial development in adolescence; and because it shows how body fat is measured, it is also relevant to biosocial development in middle childhood. However, it is recommended here because it highlights movement education as a way of helping normal children reduce tension and learning-disabled children improve their perceptual-motor skills. The link between movement and perceptual-motor skills may not be as direct as this film indicates, but the theme that physical growth should be accompanied by physical exercise is one almost all developmental psychologists support.

AV: Preschool Physical Development (30 min., Insight Media)

This film examines physical development between ages 3 and 6, including development of the skeletal, circulatory, and nervous systems.

Classroom Activity: The Relationship of Socioeconomic Status to Growth and Cognitive Development

Most of the children of the world live in developing nations and grow up under impoverished conditions that place them at greater risk for impaired biosocial and cognitive development. In 1975, 82 percent (1.2 billion) of all children under age 15 lived in developing countries, while only 18 percent (275 million) lived in more developed countries. These statistics are still true today; in fact, the number of children in developing countries may be even higher because of the high birth rates (World Bank, 2010). Children in developing countries are more likely to suffer malnutrition, disease, and insufficient cognitive stimulation, which detracts from optimal intellectual growth (Narayan & Petesch, 2007).

Since the early 1960s, several teams of researchers have been conducting longitudinal studies of the biosocial and cognitive development of high, low, and middle socioeconomic status (SES) children in Guatemala. Biosocial development is assessed by measuring three variables: height, weight, and skeletal age. Height reflects genetic history, as well as long-term nutrition and health care. Weight is considered a measure of more recent growth, reflecting current nutrition and health care. Skeletal age, which is measured by bone X-rays, is an index of physical maturity and is used to predict a child's potential for further growth. Cognitive development is typically assessed by comparing a child's scores on standardized tests of reading ability and general intelligence with developmental norms for the child's chronological age.

Researchers have consistently found that low-SES children have delayed biosocial growth, as compared with middle- and high-SES children. In addition, biosocial development has been found to be positively correlated with cognitive development in young children in developing countries, so that where there is delayed growth, there is slower cognitive development.

Previously, researchers had not examined whether the relationship between growth and cognitive development continues during the school years. Nor had they attempted to control for SES when comparing the cognitive status of small-for-age and normal-for-age children. These are important issues, for if the relationship between delayed growth and cognitive development persists, small-for-age children may be cognitively handicapped throughout their lives.

To address these issues, Barry Bogin and Robert MacVean studied a sample of 144 Guatemalan children: 46 of low SES, 52 of middle SES, and 46 of high SES. Height, weight, skeletal age, reading ability, and general intelligence were measured annually as the children progressed from grades 1 through 6. As in previous studies, low- and middle-SES boys and girls showed significantly delayed growth, as compared with high-SES children. However, when SES was statistically controlled, *there was no significant correlation between biosocial growth and cognitive status.*

Because large numbers of school-age children in developing nations are small for their chronological age, Bogin and MacVean's findings are highly significant. The scientists conclude that low- and middle-SES children often suffer from undernutrition that delays their biosocial development during the pre-school years. Although delayed growth may persist during the years of primary schooling, the delays in cognitive development that were apparent in the pre-school years may be ameliorated by education.

Bogin, B., & MacVean, R. (2003). Anthropometric variation and health: A biocultural model of human growth. *Journal of Children's Health, 1*(2), 149–172.

Narayan, D., & Patesch, P. (2007). *Moving out of poverty: Cross-disciplinary perspectives*. Washington, DC: The World Bank and Palgrave MacMillan.

World Bank. (2010). *PovertyNet Home*. Retrieved December 30, 2010, from www.worldbank.org/poverty/data/trends.

Nutrition

Classroom Activity: Correcting the “Big Five” Nutritional Deficiencies in Young Children

As the text indicates, most children in developed nations are well fed. However, that doesn't mean that they are eating the right foods. In the United States, only about one-fourth of toddlers and young children eat a balanced diet, according to the U.S. Department of Agriculture. “When children stop having breast milk and jarred baby foods, their parents tend not to replace these foods with regular servings of milk,

fruits, and vegetables,” says Shirley Watkins, undersecretary of Food, Nutrition, and Consumer Services (cited in Vander Schaaf, 2000). One current view is that the most common nutrient deficiencies among school kids are vitamin D, calcium, fiber, and potassium (WebMD, 2011). Other sources also mention magnesium, vitamin E, and iron. Following are WebMD's recommendations:

Vitamin D: The American Academy of Pediatrics (AAP) recommends getting at least 400 international units (IU) of vitamin D per day. The body makes vitamin D when exposed to strong sunlight, storing extra for future use. Common foods rich in vitamin D include most milk and other fortified foods, such as some brands of breakfast cereals, orange juice, and yogurt. Other foods rich in vitamin D include fattier fish, such as salmon and light tuna. Supplements are another source of vitamin D.

Calcium: The IOM's daily calcium recommendations for children: ages 1-3: 500 milligrams; ages 4-8: 800 milligrams; ages 9-18: 1,300 milligrams. You get 300 milligrams of calcium from 8 ounces of any type of milk (including lactose-free) or yogurt, or from 1.5 ounces of hard cheese (such as cheddar). Orange juice with added calcium and vitamin D is a calcium-rich, but dairy-free, option. Children who don't get enough dairy or fortified choices may need a calcium supplement.

Fiber: How much fiber to get depends on the child's age, according to the AAP. Figure your child's daily fiber quota in grams by adding five to his age. For example, a 5-year-old should get 10 grams of daily dietary fiber. Boost your family's fiber intake by serving a fruit or vegetable (or both) with meals and snacks. Opt for whole-grain breads and cereals, pasta, and other grains. Also, try to include legumes, including chickpeas, lentils, and white beans in salads, soups, and omelets. Coincidentally, many of these same foods provide potassium and magnesium, too.

Potassium: Daily potassium recommendations for children: ages 1-3: 3,000 milligrams; ages 4-8: 3,800 milligrams; ages 9-13: 4,500 milligrams; ages 14-18: 4,700 milligrams. Besides fruits and vegetables, dairy foods, meats, and seafood are also good potassium sources. For a child to get enough potassium, at least one fruit or vegetable should be served at every meal and snack and the child should eat a balanced diet.

Vander Schaaf, R. (2000, February). The best nutrients for your child. *Parenting, 14*(1), 173.

WebMD. (2011). 4 nutrients your child may be missing. Retrieved February 17, 2011, from www.webmd.com/diet/guide/4-nutrients-your-child-may-be-missing?page=3.

Hazards of “Just Right”

Brain Development

AV: *The Development of the Human Brain* (40 min., Films for the Humanities and Sciences)

(See description in *The First Two Years: Biosocial Development*.)

AV: *The Brain* (23 min., Films for the Humanities and Sciences)

This program describes research on how the brain functions as the center of thinking, learning, memory, emotions, and speech. It presents a particularly effective depiction of how nerve impulses are transmitted and how chemical neurotransmitters enable communication within the brain. It concludes with an examination of the latest techniques for exploring the structure and function of the brain.

Classroom Activity: Right and Left Brain Specialization

To help students understand the specialization of the two sides of the brain and the fact that both sides participate in most tasks, you might try a simple classroom project suggested by Ernest Kemble and his colleagues. The exercise requires students to balance a wooden dowel first on the index finger of the right hand and then the left, while performing a verbal task or while remaining silent. Specialization should make balancing the dowel with the right hand (directed by the left side of the brain) more difficult when the subject is engaged in a verbal task. Conversely, balancing the dowel with the left hand (directed by the right, nonlinguistic side of the brain) should not be disrupted by the verbal activity.

In Kemble's experiment, students were first permitted a few minutes' practice with the dowel. Then they underwent eight test trials (four with each hand) in which the experimenter timed the interval between the "start" command and dropping of the dowel. Half the trials with each hand were conducted in silence, the other half while the student performed a simple verbal distraction task, such as reciting the alphabet or engaging in a "spelling bee." Mean balancing times were computed for each condition.

Kemble's results indicated that the verbal task disrupted balance in both hands, although the impairment was greater for the right hand. These results demonstrate that although the left side of the brain may be more important than the right in verbal tasks, both sides participate.

Kemble, E., Filipi, T., & Graylin, L. (1985). Some simple classroom experiments on cerebral lateralization. *Teaching of Psychology, 12*(2), 81–83.

Classroom Activity: An Epigenetic Model of Emotional Regulation

According to Allan Schore of the UCLA School of Medicine, a major conclusion of the last few decades of infant cognitive neuroscience research is that the

developing brain is epigenetically designed to be molded by the emotional environment it encounters. In other words, babies' brains develop according to a genetic timetable that must be activated by early experiences, especially interactions with caregivers.

The developing brain undergoes a growth spurt that begins in the third trimester and extends to about 124 months of age. As noted in the text, the growth spurt involves the development of the limbic system, which plays a vital role in social cognition, attachment, and emotional regulation. During the growth spurt, there is an overproduction of synaptic connections, many of which are discarded through a process of pruning that ultimately selects synaptic connections that best match incoming environmental information. Through this synaptic pruning, the structural and functional development of the brain adapts to environmental experiences.

Schore describes an extensive body of research supporting the idea that early development of the brain's right prefrontal cortex plays a critical role in attachment and the individual's lifelong pattern of emotionality. Beginning with his conceptualization of the limbic system as the brain area specialized for adapting to rapidly changing environments, Schore notes that the right prefrontal cortex has extensive connections into the limbic system and the autonomic (involuntary) nervous system. This makes it function somewhat as an executive control center for the developing person's stress response and coping behaviors.

During the first two to three years of life, Schore maintains, centers in the right prefrontal cortex respond to interactions with the primary caregiver, as he or she guides the infant's emotional development. Putting a neurobiological spin on the importance of synchronicity, Schore cites evidence that interactive mutual gazes between caregiver and infant release high levels of endogenous opiates (endorphins) in the child's brain. This synchronicity "acts as a template, as it permanently molds the individual's capacities to enter into all later emotional relationships."

In Schore's model of emotional regulation, infant mental health is viewed as the earliest expression of flexible strategies for coping with the novelty and stress inherent in everyday life. When the right prefrontal cortex is well-developed, adaptive, and flexible, it provides the person with the resilience needed for optimal development over the later stages of the life cycle.

Bradshaw, G. A., & Schore, A. N. (2007). Developmental neuroethology attachment and social context. *Ethology, 113*(5), 426–436.

Schore, A. N. (2003). *Affect regulation and the repair of the self*. New York: Norton.

Classroom Activity: Self-Regulation, the Prefrontal Cortex, and School Readiness

To supplement the text discussion of the important role that development of the prefrontal cortex plays in

emotional regulation and in relation to Allan Schore's findings (discussed in the preceding classroom activity), you might describe research showing that self-regulatory skills underlie many of the behaviors and abilities that are associated with success in adjusting to school. For decades, researchers have considered intelligence to be a key predictor of success in school, but indicators of self-regulation ability may be equally powerful predictors. Children who are less distractible and who display more positive and moderate levels of emotional intensity are rated by their teachers as being more teachable and do, in fact, achieve greater academic success than do children without these self-regulatory skills.

Data from the National Center for Education Statistics survey of kindergarten teachers' ratings of characteristics considered essential or very important for kindergarten readiness indicate that teachers are deeply concerned with regulatory aspects of children's behavior (ECLS, 2008). More specifically, 84 percent of teachers stated that children need to be able to communicate wants, needs, and thoughts verbally; 76 percent felt that children need to be enthusiastic and curious; and 60 percent said that children need to be able to follow directions, not be disruptive of the class, and be sensitive to other children's feelings. In contrast, only 21 percent of teachers felt that the ability to use a pencil or paintbrush was essential; and only 10 percent and 7 percent, respectively, stated that knowing several letters of the alphabet and being able to count to 20 was essential or very important for kindergarten readiness.

Emotional reactivity and self-regulation in young children have been linked to individual variation in physiological reactivity. For example, among children characterized as inhibited (overcontrolled), novel stimuli have been associated with a high level of arousal in the limbic system, particularly in the brain's amygdala, a key structure associated with emotion. Such children have a low threshold for limbic arousal, and this arousal results in negative emotional expression, activation of the sympathetic nervous system, and ultimately withdrawal from stimulation in an attempt to self-regulate their state of arousal. High limbic arousal, social withdrawal, and sympathetic activation are all associated with a particular pattern of neural activity in the prefrontal cortex, the center of the so-called executive functions of the brain.

Early Childhood Longitudinal Study (ECLS). (2008). *Early childhood longitudinal program*. U.S. Department of Education. National Center for Education Statistics. Retrieved September 20, 2008, from <http://nces.ed.gov/ecls/kindergarten.asp>

Improved Motor Skills

AV: Preschoolers: Physical and Cognitive Development (30 min., Magna Systems)

This film explores the three domains of development

of the child between the ages of 3 and 6 years. The chubby toddler becomes the leaner young child whose improved motor coordination enables a variety of new activities. Perceptual development, preschool thinking, and language development are also examined.

Classroom Activity: Using Play Therapy to Correct Balance Difficulties in Children

Children maintain balance, or postural control, through a dynamic integration of internal forces and environmental feedback. They are most likely to lose their balance—and fall—when they do not maintain their center of gravity (COG) within stability limits. The child recognizes these limits through the somatosensory, vestibular, and visual senses, which provide information about current position and any adjustments needed. Once the central nervous system (CNS) receives sensory information, the information is processed, checked, and used to plan a strategy to correct for any postural imbalances.

Two key components of the CNS are involved in maintaining balance: the motor cortex and the cerebellum. The motor cortex organizes the incoming sensory information regarding balance and sends it via the peripheral nervous system to motor nerves that stimulate the proper muscles to contract, allowing the person to maintain balance. The cerebellum coordinates skeletal muscle planning. Working closely with the cerebral cortex, the cerebellum promotes muscle synergy, functioning subconsciously to make movement smooth, coordinated, and efficient.

When the cerebellum is diseased, damaged, or for other reasons malfunctioning, the person has difficulty making smooth, coordinated movements. Common characteristics and symptoms include tremors and disturbances in gait, posture, and balance. Traditional physical therapy, including balance training protocols and visual biofeedback, are often used to treat adults with cerebellar disorders. Treatment of children, however, poses special challenges.

One study investigated the effectiveness of play therapy as a treatment for young children suffering from balance problems caused by cerebellar damage. Child A participated in weekly play therapy sessions that emphasized improvement of balance, coordination, and collateral movement patterns. Among the play activities were hopscotch, marching, balance beam activities, cycling, and various isometric exercises to promote trunk stability. As a comparison, child B was recruited from the community and had no known balance, sensory, or orthopedic disorders.

During each testing session, both children were asked to perform a series of three balance tests on a force platform (a flat board with positional sensors that can measure wobble while a person is standing on it), including a two-legged stance, a left leg only stance, and a right leg only test. Force data were collected using a computer connected to the balance platform. Every five weeks (to reduce the effects of learn-

ing, which might occur in a shorter period), the children went through a testing session.

Over the course of the three sessions, child A showed a significant decrease in body sway, indicating an increased ability to maintain COG over the stability limits. This improved balance was observed with all three stance conditions. In contrast, child B exhibited no statistical differences in fore/aft sway, media/lateral sway, or total sway. The results of this study suggest that play therapy may be beneficial in the treatment of balance disorders in children. By viewing balance as a motor skill, play-based practice, experience, and feedback can be used to improve postural control in a child-oriented treatment environment that is fun.

If your students are interested in learning more about the nature of play therapy, the following information might form the basis of a mini-lecture. This form of therapy is based on two fundamental principles:

- Young children lack the cognitive maturity to benefit from talking through their problems, as takes place in most conventional forms of psychotherapy.
- Activities organized and controlled by adults do not give children the feeling of empowerment they experience in their voluntary play. In a play therapy session, children are in charge. There they create a world where they can practice social skills, overcome fears, and symbolically triumph over upsets and concerns that are threatening their sense of well-being.

A trained play therapist strives to help the child express his or her needs and discover solutions in a safe, therapeutic environment, typically a specially designed and decorated room that is furnished with the toys and equipment children need to use as tools for the dramatic scenes they direct with the therapist. Parents are important allies in the play therapy process and meet regularly with the play therapist to share important observations and support their child's therapy.

The efficacy of play therapy has become so widely accepted that many schools of education offer a graduate certificate in this specialized field. Johns Hopkins, for example, notes that "Play therapy has been applied as part of responsive services within comprehensive, developmental elementary and middle school counseling programs to facilitate self-esteem, increase self-efficacy, and decrease maladaptive behaviors to remove barriers for success in social, career, and emotional spheres." Play therapy is also used in many clinical community settings and with private practice clinicians as the preferred, developmentally appropriate treatment modality when working with young children and their families affected by parental divorce, ADHD, bereavement, trauma, and other diverse psychosocial and psychological issues that negatively affect psychosocial functioning.

Aufsesser, P. (1999, Winter). Use of play therapy in the treatment of balance disorders. *Palaestra*, 15(1), 16, 59.

Johns Hopkins University School of Education. (2008). *Play Therapy*. Retrieved September 20, 2008, from <http://education.jhu.edu/counseling/counseling-certificates/playtherapy/>

Topham, G. L. (2003). Innovations in play therapy: Issues, process and special populations. *Journal of Marital and Family Therapy*, 29(3), 430.

*Critical Thinking Activity: Designing a Toy**

Each unit of these resources contains a critical thinking exercise designed specifically to test students' critical thinking about a topic covered in the text. Handout 2 contains a specific task followed by a series of questions.

The answer to this unit's critical thinking activity follows:

The most significant aspect of biosocial development during early childhood is the continued maturation of the nervous system and the refinement of the visual, muscular, and cognitive skills that will be necessary for children to function in school. Appropriate toys for 2- to 6-year-old children would therefore stimulate the senses, help children to master new physical or intellectual skills, or simply provide for healthy physical exercise. Toys that encourage social play (such as some kind of ball) are also good, as long as the designer considers the limited social skills of the child.

In evaluating your toy, consider the following criteria: safety features (absence of sharp edges, appropriate size, weight, and sturdiness, no pieces small enough to choke on and nothing that might pinch, poke, or bruise the child or a playmate); sensory stimulation (visual, auditory, tactile, or olfactory properties); and developmental appropriateness (cognitive and motor skill readiness of the intended age group).

*Based on an idea from Neysmith-Roy, J. M. (1994). Constructing toys to integrate knowledge about child development. *Teaching of Psychology*, 21(2), 101-103

Teaching Tip: The Right Age for Toilet Training

A sure-fire topic for grabbing student attention in discussing children's motor control as well as their self-control is the following: What is the right age to start toilet training? Before posing this question to your students, you might summarize a large-scale study of toilet training conducted by pediatrician Bruce Taubman (1997). Taubman's study of 482 children in suburban Philadelphia is one of the first systematic investigations of toilet training since the 1960s.

Among his findings:

- The average age at which parents introduced toilet training was 23 months.
- On average, boys trained somewhat later than girls.
- There was no relationship between when a child was trained and the mother's work status, the presence of siblings, or whether the child was in day care.

- About 13 percent of the children had trouble with toilet training. The vast majority of these were able to resolve their problem without special intervention.

If your class consists primarily of traditional, college-age students, chances are that parents schooled by parenting experts T. Berry Brazelton and Benjamin Spock raised most of them (cited on parenttime.com). In the last round of the toilet-training wars, these spokesmen for parents of the 1960s through the 1990s advocated a flexible toilet-training approach in the belief that parents who force toilet training can cause lasting problems in their children. "Don't rush your toddler into toilet training or let anyone else tell you it's time," said Brazelton in a television commercial for Size 6 Pampers (intended for children 35 pounds and up!). "It's got to be his choice."

As a result of this philosophy, the age at which toddlers shed their diapers has steadily increased over the past several decades. In 1957, for example, 92 percent of children were toilet trained by the age of 18 months. By 1998, that figure had dropped to less than 25 percent. Rightly so, according to experts at the University of Michigan Health System, who say that most children are ready to "begin the process between 24 to 27 months."

Another possible backlash of the permissive training policies of past decades comes from reports of pediatricians, who have noted an increase in the number of medical referrals of older children for a variety of elimination problems. Among these are withholding of urine and stool, chronic constipation, and daytime and nighttime urinary control.

Trends such as these horrify psychologist John Rosemond, syndicated columnist and author of a number of best-selling parenting books, who considers it "a slap to the intelligence of a human being that one would allow him to continue soiling and wetting himself past age 2" (cited on www.parenttime.com). Toilet training, argues Rosemond, should be no more complicated than housebreaking a new puppy.

Rosemond faults "wishy-washy" parents for delayed toilet training, and points his finger at Brazelton, who in the 1960s pioneered the "child-centered" parenting approach that lets children decide when to shed their diapers. And Rosemond believes that the problems of this philosophy may extend beyond toilet-training difficulties into disciplinary problems, when parents are slow to make the transition to "authority figure." "In a nutshell, my philosophy on toilet training is that it ought to be done between 18 and 24 months, that it's relatively easy, that we are making entirely too big a deal of it in our culture today," he says.

For his part, Brazelton attributes the increase in toilet-training problems to *escalating demands* placed on children today, rather than on fewer pressures. In his view, these pressures stem from the requirement of many day-care centers that children be toilet trained before they can be enrolled. As a result, pan-

icky, working parents may lean too hard on their offspring. "Parents are feeling very guilty and people like Rosemond are making them feel more guilty, not less," Brazelton notes. "And the child's only recourse is to withhold urine or stool in protest."

Brazelton's advice is that parents buy a potty chair and show children what is expected of them at about age 2, but not to expect the child to become potty trained in a few days, or that every child will progress at the same rate. "If your child is afraid of the potty chair, don't put pressure on him to use it. Put toilet training aside for a month or two and give your child time to get used to the idea of the potty and to be comfortable with it," he recommends in a parenting guide on the Pampers Parenting Institute Web site. "Be patient and positive," he continues. "As with any new skill, your child will master toilet training in time."

In contrast, Rosemond's "Naked and \$75" program advises parents to stay home from work with their child for a few days and allow the child to walk around naked all day long. The potty is placed where the child spends most of his or her time, and moved when necessary. Parents are urged to periodically remind the child to use the potty when needed. "Children at this age do not like urine and feces running down their legs," he notes. "When they have an accident, they stop and start to howl, and the mother comes along and says, 'Well, you forgot to use the toilet.' She puts him on the toilet, wipes him off, and speaks reassuringly to him. And within three days, or five days, he's doing it on his own." What's the \$75 for, you ask? Carpet cleaning!

Taubman believes that training a child by age 2 can be done, but only with a tremendous effort. He suspects that there may be something akin to a sensitive period in development, near the age of 2 or 2½, when "kids really want their parents to get excited if they poop." If this window of opportunity is missed, training is likely to take much longer. He also believes that early toilet training was a phenomenon of another time, when children were more likely to stay at home with their mothers full time.

To check out the conflicting opinions of Brazelton and Rosemond, Google their names and you'll find a host of discussions about their views on toilet training. If you want to receive Rosemond's weekly column on parenting, go to www.rosemond.com.

The American Academy of Pediatrics published an authoritative guide that addresses every phase of the toilet-training process (Wolraich & Tippins, 2003).

Topics covered include:

- Recognizing when your child is ready
- How to choose and install a potty
- What to do when a child resists
- Positive responses to the inevitable "accidents"
- Handling constipation and other common problems

- Toilet training for children with special needs
- Special tips for boys, girls, and twins
- Coping with bed-wetting and soiling

Goode, E. (1999, January 12). Pediatricians renew battle over toilet training. *New York Times Online*. Retrieved October 23, 2008 from www.nytimes.com.

How do I know when my child is ready to start toilet training? (2008). University of Michigan Health System. Retrieved October 23, 2008 from www.med.umich.edu/llibr/yourchild/toilet.htm.

Rosemond, J. (2001). *New parent power*. Kansas City, MO: Andrews McMeel Publishing.

Rosemond, J. (2009, May 19). Parenting by John Rosemond: Keep it simple when toilet training your toddler. Retrieved February 5, 2010, from www.projo.com/lifebeat/content/lb-Parenting19_05-19-09_HTEBM68_v9.294c416.html.

Rowland, H. (1999, January 13). *Now or later? Debate over toilet training goes on*. CNN Interactive. www.CNN.com/interactive.

Taubman, B. (1997). Toilet training and toilet refusal for stool only: Prospective study. *Pediatrics*, 99(1), 54–55.

Wolraich, M. L., & Tippins, S. (2003). *Guide to toilet training*. Washington, DC: American Academy of Pediatrics.

“On Your Own” Activity: Bubbles in the Bowl: Using Developmental Theory to Design Potty Training

To help your students apply developmental theory to practical issues in biosocial development, ask them to design a potty training plan derived from each theory of development, using Handout 3 as a guideline. A behaviorist, for instance, might note that a good way to toilet train children is to make the process entertaining and rewarding, perhaps by occasionally pouring colored shampoo into the bowl. Urinating into the bowl will be positively reinforced by the colorful bubbles that result.

Students may find it more difficult to design practical training plans based on some theories (e.g., psychoanalytic) than others. This fact by itself is worth discussing, as it will naturally lead to a consideration of what makes a good theory, the relationship of “testability” to “usefulness,” and so forth. For a stimulating (and likely humorous) class discussion, ask for volunteers who are willing to share one or two of their “best” training plans.

Gross Motor Skills

Fine Motor Skills

Observational Activity: Fine Motor Skills

Fine motor skills, involving the muscles that control the extremities, are much harder for young children to master than are gross motor skills. This is because the muscles near the trunk (proximal), which control gross motor skills, mature sooner than those that control the extremities (distal). Fine motor skills also

develop later because myelination of the central nervous system is incomplete during the preschool years.

Although infants and toddlers use their hands and fingers extensively, these early movements are *involuntary, reflexive responses* that are innate. Not until control of hand and finger movements shifts from lower neural centers in the brainstem to higher cortical regions does the child gain *voluntary control* over movements. Although there are wide variations in the age of neuromuscular “readiness,” once voluntary control begins to emerge, practice of fine motor skills can be beneficial.

To increase students’ understanding of the difficulties young children experience in mastering fine motor skills, have them make arrangements to “test” a child between 2 and 6 years old. Suggest that they assess a younger brother, sister, nephew, or niece. Alternatively, they might find a friend with a young child, or arrange to work with a child at the campus child development center. Handout 4 provides a checklist for students, and Handout 5 is a follow-up questionnaire.

Remind students that they should make the assessment a fun, playful activity for the child and that each child has his or her own developmental timetable that may be somewhat behind, or ahead of, developmental norms for that age.

Classroom Activity: Understanding Children’s Art

To enhance your students’ understanding of children’s art, you might use samples from the local nursery school. Especially interesting would be crayon drawings by children between the ages of 3½ and 5, when the switch to representational or pictorial art occurs. Ask the nursery-school teacher to write the *exact* age of the child on the back of each sample (noting, when appropriate, if the child has any exceptional qualities, such as a disability or unusual social maturity). Show the drawings to your class. Chances are that your students will be able to tell which drawings are made by the younger children in the sample and which are by the older children. This exercise should help students see, in concrete form, the cognitive development of children, as represented in an important communication medium.

Injuries and Abuse

Avoidable Injury

AV: Secure Your Child’s Future (14 min., IFB)

This straightforward film emphasizes the importance of safety seats and seatbelts for young car passengers. The class discussion could begin with the statistics. Then you could ask: Why do few states in the United States, and few parents, require their children to use seatbelts? Alternatively, why do some U.S. states, Canadian provinces, and a minority of parents require them? Ideally, a student who is a

parent will volunteer the practical problems of trying to keep children safe at all times, and the class will suggest solutions. The discussion should include recognition of the role of the macro-, exo-, and microsystems, as well as the role of developmental psychology, in helping keep children safe.

AV: Child Care: Outdoor Safety (3 films, each 16–19 minutes in duration, Insight Media)

Although primarily intended as vehicles for parent and teacher training, each film illustrates numerous specific aspects of biosocial development and highlights the importance of outdoor safety in preventing accidents—the leading cause of childhood death. *Setting Up the Rules* discusses the importance of outdoor play for childhood development and identifies many common dangers presented by the outdoors. *The Playground* discusses specific dangers of common playground equipment. *Kids on the Go* explores various safety issues during field trips.

“On Your Own” Activity: Childhood Accident Record

To help your students think about childhood accidents and how they might be prevented, ask them to complete an accident record for themselves or someone in their family (see Handout 6).

Students may find it difficult to remember exactly when accidents occurred. However, the majority of accidents probably occurred in early or middle childhood. In discussing how accidents might be prevented, students should be encouraged to specify ways in which society can make the environment safer for young children.

Classroom Activity: Problem-Based Learning: Accident Prevention and Injury Control

The Introduction’s Classroom Activity: Introducing Problem-Based Learning describes this relatively new pedagogical tool. Following is a sample problem that you might want to give to your students as part of your coverage of biosocial development during early childhood:

After reading in her textbook that in developed nations more children die of violence—either accidental or deliberate—than from any other cause, Lashonda worries about her 3-year-old nephew’s safety.

Before you leave class today, your group must address the following questions: First, from what you have learned about accident prevention and injury control, why do public health experts prefer the latter term? Second, after your group agrees on an answer to the first question, determine some resulting learning issues that need to be researched to answer the question, “How safe is Lashonda’s nephew?” Among other issues, these should focus on the three levels of prevention that apply to every childhood health and safety issue.

Based on the decisions your group makes today, you should devise a plan for researching the various issues. Two weeks from today’s class, your group will present an

answer for Lashonda based on the issues you think are relevant.

Child Maltreatment

Classroom Activity: Factors Underlying Child Abuse

To prevent students from adopting a one-sided view of abusive or neglectful parents, you might look for ways to help them empathize with such parents. The extent to which each of us is responsible for what we do is a complicated psychological and philosophical issue—and not one you are likely to resolve in one class session. However, the tendency to blame parents, especially mothers, for everything that happens to their children is one cause of child abuse—in part because mothers feel greatly judged and very little supported where mistakes in raising children are concerned. From studies of abusive parents we know that one problem is that some parents expect perfection from themselves as well as from their children. When they don’t see it, they feel guilty, harassed, and pressured, and finally they lash out. For this reason, it is probably advisable to emphasize the many social factors that underlie abuse. Unemployment, alcohol, lack of safe places for children to play, lack of good day-care facilities, lack of education, teenage pregnancy—all are correlates of abuse, and all are social problems that could be alleviated, at least to some extent, by the social network that includes each of us.

It is also a good idea to discuss actual ways in which a child might make a parent furious and to provide suggestions for coping with this behavior without harming the child. Your firsthand experiences and those of your students or colleagues who have children will most likely be more convincing than the following secondhand accounts, but here are two examples I use with my classes (both written by Kathleen Berger for an earlier edition of these resources).

My eldest daughter, Bethany, used to cry almost every afternoon when she was about 2 months old. Feeding her, changing her, and playing with her didn’t help, and I got tired of picking her up and rocking her to sleep only to have her wake up and cry as soon as I put her down. I thought of just letting her cry herself to sleep, but I felt guilty about that; I had read that “good” mothers didn’t do that.

A friend suggested a solution: Put her into her crib, close the door (this made the sound of her crying less annoying), and set the kitchen timer for 10 minutes. If she hadn’t stopped crying when the timer rang, I should pick her up.

This suggestion worked well. First, while the timer was on I could relax, because I felt I was doing something to help her: I was seeing whether she was overtired and needed some distance from me in order to go to sleep; about half the time she did go to sleep. Second, when the 10 minutes were up, I had had enough of a break to try again to comfort her.

The second example involves my two oldest children when they were toddlers. One rainy Saturday afternoon, in the midst of the many little demands and quarrels

that come naturally to a pair of toddlers, one of them asked for orange juice, which I got from the refrigerator. But the juice bottle was wet, and, naturally, it slipped from my hand and broke all over the kitchen floor. In that moment I yelled at the children so angrily that they both cried. I realized then that had I been more familiar with physical punishment, I well might have hit them—out of frustration with myself. (The solution was to hug them both, fix a bubble bath with lots of bath toys for them—at that age at any rate, they always loved to take a bath—and then, when we were finished, mop up the mess.)

AV: Child Abuse (19 min., Films for the Humanities and Sciences)

This film explores sexually and physically abused children through the experiences of a therapist and clinical social worker who deal with sex offenders and their victims. It makes the important point that the child's social interaction is often an important clue to what has happened behind closed doors.

AV: Childhood Physical Abuse (26 min., Films for the Humanities and Sciences)

This program explores a range of issues concerning the physical abuse of children, including the kinds of adults who are likely to abuse their children, the effects of abuse on children, and how abusive parents can break the cycle of their behavior.

“On Your Own” Activity: Child Maltreatment in Context

To help your students think about child maltreatment in context, ask them to respond to the questions in Handout 7.

This activity will help increase your students' awareness of the pervasive forces that contribute to child maltreatment. For a stimulating class discussion, ask for volunteers who are willing to share their answers to questions 3 and 4.

Teaching Tip: Cultural Attitudes and Child Abuse

To reinforce the idea that cultural attitudes about physical punishment affect the frequency and intensity of child abuse, you might have your students exchange their views on the subject. One way to begin the discussion is to ask for a definition of child abuse that differentiates “discipline” from “abuse.” Depending on the background of your students, you might find that such questions as “Should you ever hit a child?” or “What would you do if you found your child playing with matches?” elicit considerable controversy.

Nonphysical abuse might also be explored with such questions as “Would you send a child to bed without any dessert? Without any dinner?” “Would you tell a child to go to his or her room for 10 minutes? An hour? A day?” “Would you tell a child he or she is selfish? Stupid? Stubborn? Tricky?”

Another interesting issue to explore is the father–mother relationship with regard to disciplining chil-

dren. Ask your students whether both parents should play the same role and follow the same rules. Should mothers ever say, “Just wait till your father gets home”? Should fathers ever say, “Why can't you teach that child how to behave?” What do they think a parent should do if he or she feels that the other parent is too lax, too strict, or too heavy-handed in discipline?

Classroom Activity: African Genital Rites and American Law: Conflict in the Cultural Macrosystem

The text notes that definitions of child maltreatment vary with cultural norms. In some instances, these norms encourage physical rites of passage that, to other cultures, are simply sickening. To proponents, however, these rites remain sacred rituals that strengthen children's character.

One of the most vivid examples of a rite of passage that has received considerable attention in the media is “female circumcision,” or genital mutilation. To stimulate critical thinking in your students about the role of the cultural macrosystem in child maltreatment, you might introduce this troubling topic with the following case study. If you wish to devote an entire lecture to this topic, you may choose to assign the article on which this case is based; your students can access it through the *New York Times* Web site (www.nytimes.com).

Just six months after emigrating from a Somalian refugee camp to Houston, Texas, Ahmed Guled's family seems to be well on its way toward complete American acculturation. His children are enrolled in the local elementary school, enjoy Saturday morning cartoons, and dress in clothing from The Gap. Guled is proud that his children will grow up as American citizens and is already making plans for them to attend college.

But despite his American aspirations, Guled still believes in an ancient tradition that is customary in parts of his ancestral African home. He believes his daughters must have their clitorises cut off and their genital lips stitched together to preserve their virginity and to follow the teachings of his Muslim faith. “It's my responsibility,” he said. “If I don't do it, I will have failed my children.”

Guled's wife supports the practice. “We were taught that this was a way of ensuring a girl's good behavior,” she said. “It prevents them from running wild. Women should be meek, simple and quiet, not aggressive and outgoing. This is something we just accept.”

Although the rite is practiced in 28 African countries, its prevalence varies widely, as does its severity, ranging from removal of the clitoris to the most extreme form, infibulation, which involves sewing up the genital lips to leave only a tiny hole for passage of urine and menstrual blood.

According to the Centers for Disease Control and Prevention (CDC), each year more than 150,000 women and girls of African ancestry in the United States are at risk of having this rite performed on them. In 1996, Congress directed federal health agencies to develop a plan to educate immigrants about the harm of genital cutting. Congress also passed a law

making this practice punishable by up to five years in prison.

But authorities say stopping female genital mutilation among the growing population of African immigrants will take much more. For one thing, the law is difficult to enforce. While refugees are often impoverished, those who are able to save enough money to take their daughters out of the country for cutting are probably not violating the law as it is written. For another, doctors who spot cases of genital mutilation are reluctant to report parents to authorities for fear of breaking up close-knit families and sending mothers and fathers to prison.

But the principal difficulty in preventing the practice is the secretiveness of those who believe genital cutting is an essential rite of passage. It will mean finding a way to counteract generations of cultural heritage in order to change the minds of well-meaning parents. To this end, U.S. Health Department officials have organized meetings with advocates for refugees and nonprofit groups that work closely with Africans and Asians to develop strategies for combating the practice. (Although Africa is the focus of this item, female circumcision is also practiced in parts of the Near East and Southeast Asia.) The groups may, for example, ask Muslim religious leaders to explain to immigrants that the Koran does not require the practice.

To expand students' awareness of this practice, have them research the topic on the Internet, then answer the following questions:

1. How widespread is the practice of female circumcision? Why is it practiced? Is it a form of child maltreatment? Should the answer to this question depend on whether the rite is performed by members of a certain cultural or ethnic group?
2. How might primary, secondary, and tertiary prevention be used to combat the practice of female genital cutting?

Dugger, C. W. (1996, December 28). Tug of taboos: African genital rite vs. U.S. law. *New York Times*. Retrieved from www.nytimes.com.

AV: No More Secrets (24 min., Films for the Humanities and Sciences)

Through riveting case studies of sexually abused children and adults who were abused as children, this program explores the long-term damage that results from childhood sexual abuse.

AV: Psychological Maltreatment of Children: Assault on the Psyche (19 min., Insight Media)

This brief, award-winning film dramatizes the emotional effects of verbal abuse on children. Intended primarily for teacher in-service training, experts analyze each situation portrayed and offer recommendations for intervention.

AV: Children of Neglect (30 min., Films for the Humanities and Sciences)

This film profiles the sad, yet often inspiring, stories of children who have been neglected by their parents. Because no one has ever been there for them, such children are remarkably self-sufficient.

AV: Damage: The Effects of a Troubled Childhood (55 min., Films for the Humanities and Sciences)

This film explores whether the roots of adult phobias and psychological disorders can truly be traced to childhood traumas. A variety of experts discuss the controversial notion of repressed childhood memories and the origins of adult depression.

AV: No One Saved Dennis (14 min., Films for the Humanities and Sciences)

A segment of *60 Minutes* hosted by Diane Sawyer, this brief film tells the story of Dennis, who was placed for adoption in the home of a child abuser, in a community of acquiescent family members, social workers, and health professionals who failed to intervene and prevent his death.

AV: Childhood Sexual Abuse (26 min., Films for the Humanities and Sciences)

Through interviews with psychiatrists, social workers, and law enforcement officials, this program explores the ways in which adult women learn to work out the numerous problems caused by sexually abusive fathers. It also discusses how children can be manipulated into silent acceptance of abuse, the reliability of children in giving eyewitness testimony, and various prevention skills that can be taught to children.

Classroom Activity: Interpersonal Relationships of Abused Children

Developmentalists have long believed that a family context of maltreatment can inhibit the development of normal peer relationships in abused children. For example, punishment for outgoing behaviors and gregariousness (which is frequently observed in such families) may discourage children from approaching peers and contribute to overall feelings of social wariness. Many abusive families are also characterized by threatening patterns of parent-child interactions that could promote aggression in children and impede the development of self-control.

Indeed, research has shown that abused children are both more aggressive and more withdrawn in peer interactions than nonabused children are. Abused children are also less likely than other children to approach unfamiliar children or to participate in group play and conversation. When abused children do interact with their peers, their interactions tend to be less successful, reciprocal, and positive than those of

nonabused children. Not surprisingly, parents and teachers report that abused children tend to be less well-liked and more rejected by their peers.

Much of this evidence comes either from naturalistic observations of children in group settings (such as on the playground) or from reports of parents, peers, and teachers. There is, in fact, little direct evidence regarding abused children's one-on-one social interactions with children who are considered to be close friends.

In one study, Jeffrey Parker and Carla Herrera of the University of Michigan observed sixteen 9- to 14-year-old physically abused children and 32 matched nonabused children during a 1.5-hour sequence of unstructured and structured play. The children were recruited for the study through state protective services records. Selection criteria included substantiated physical abuse by a household member within the past 2.5 years; residence with biological parent(s); and absence of sexual abuse, physical or neurological impairment, or intellectual retardation.

Information on each child's friendship network was obtained from a Peer Social Network Diagram. (Your students may enjoy learning more about this research tool by drawing their own diagram in class.) In the first step of this procedure, the children listed the names of all their friends. Next, the experimenter wrote the child's name and the names of each individual in the network on small stickers and presented the child with a diagram consisting of three concentric circles. The sticker with the child's name on it was placed in the center of the diagram, and the child was asked to indicate how close he or she felt toward each listed individual by placing the sticker representing that individual in one of the three circles. The innermost circle represented "very best friends"; the next largest circle was for "good friends"; and the outermost circle was for "everyday, casual friends." Using these data, the researchers calculated for each child the overall number of friends as well as the number of friends in the innermost (very best) circle.

Each child's best friend was contacted and invited to participate in the second part of the study. The pairs of friends were observed together during a standard sequence of unstructured and structured tasks. For example, in one segment of the study the children were provided with a carton of ice cream, a bottle of chocolate syrup, a single can of soda, a serving spoon, and two bowls, cups, and spoons. The children were told that they had 20 minutes of free time for a snack. The snack segment was designed to show the children's spontaneous, casual, and unstructured conversation. In another segment, the pair of friends played a set of games that provided the opportunity for cooperation, negotiation, competition, conflict, reparation, and spontaneous generosity between the partners. Each session was videotaped and later analyzed for specific signs of intimacy, conflict, and emotional expression in each participant.

Surprisingly, the researchers found several similarities in the social network patterns of maltreated

and nonmaltreated children. For example, maltreated and comparison children were similar in both the frequency of contact and the duration of their relationship with closest friends. Also, the overall size of the children's friendship networks was the same. Because other researchers have suggested that maltreated children actively avoid peer contact or antagonize peers, the unexpected similarities in the two groups highlight a common example of faulty reasoning: generalizing too quickly from broader social parameters of a group (being raised by a maltreating family) to specific characteristics of individual group members.

However, many of the behaviors of the abused children during the videotaped tasks were consistent with earlier evidence. Relative to the comparison children, the abused children interacted with other children less positively, and their interactions were characterized by greater conflict and disagreement between the partners. This is consistent with the suggestion that abusive families do not provide children with contexts conducive to the development of conflict management skills, as well as research evidence that abused children are more hostile and aggressive toward peers and lack impulse control.

Interestingly, although the abused children's interactions involved more conflict than those of control children, the conflict occurred primarily during game playing. The researchers offer several speculations as to why abused children and their friends showed higher levels of conflict in this context. First, the majority of the game-playing contexts were competitive. As several authors have argued, competitive situations in which the attainment of rewards by one individual constrains the attainment of rewards by the other may be especially challenging to best friends, who are ordinarily disposed to maintain equity in their relationship. Alternatively, the games may have affected maltreated and control children in different ways. The game contexts in this study contained several stimulating elements (e.g., time limits, buzzers, loudly ticking clocks, "exploding" game boards). Among the specific difficulties of children who are abused or who witness frequent domestic violence are problems with emotional and behavioral regulation. The arousing nature of the games may have taxed the behavioral-regulation skills of abused children to a greater extent than it did those of nonabused children, contributing to the increased conflict for these dyads in this context.

A second area in which abused children's friendships differed from the friendships of other children was that abused children exhibited fewer sustained moments of intimacy. Following an attachment theory perspective, the researchers suggest that children acquire mental representations, or internal working models, of others' emotional availability through their experiences of early care. These models are extended to future relationships, including friendships. When early care is unresponsive, insensitive, or traumatizing, children are likely to view relationships as contexts in which they are not free to reach out and share

personal issues or to respond to another's emotional needs.

The researchers also found that female friends had more positive interactions and greater overall intimacy than did their male counterparts during game playing. However, abused girls displayed less positive affect than comparison girls during unstructured tasks that involved primarily conversation and discussion. These findings support previous work, suggesting that boys have more difficulty than girls in regulating their arousal under evocative conditions.

Although research on this topic has been somewhat limited, the general findings of this study have been replicated. In a more recent study, Tasha Howe and Ross Parke examined the interactional qualities of 35 severely abused children (aged 4.3 to 11.5 years) and 43 matched, nonabused children (aged 5.5 to 11.6 years). Abused children did not differ significantly from control children on several measures of friendship quality, such as resolving conflicts and helping each other. However, they were more negative in their interactions, and they reported that their friendships involved more conflicts and more betrayal and less caring.

Howe, T. R., & Parke, R. D. (2006). Friendship quality and sociometric status: Between-group differences and links to loneliness in severely abused and nonabused children. *Child Abuse and Neglect*, 25(5), 585–606.

Parker, J. G., & Herrera, C. (1996). Interpersonal processes in friendship: A comparison of abused and nonabused children's experiences. *Developmental Psychology*, 32(6), 1025–1038.

AV: Toward an Understanding of Child Sexual Abuse (4 films, each 30 min., Insight Media)

Psychosexual Development of Children describes the normal range of children's sexual development and explains the criteria for defining sexual abuse relative to these developmental norms. *Dynamics* describes the various categories of sexual abuse and presents legal definitions used in such cases. *Intervention* focuses on the roles of various legal and child protective agencies that have been established to deal with child sexual abuse. *Treatment* explores various models of treatment for sex offenders and discusses the rationale for their treatment.

Three Levels of Prevention, Again

Classroom Activity: Targeting Maltreatment Interventions to Fit the Family Context

A major challenge in preventing or stopping maltreatment is how to tailor treatment to fit the specific family context. To expand on this topic, you might summarize Patricia Crittenden's suggestion that families involved in maltreatment can be subdivided into four categories: vulnerable-to-crisis, restorable, supportable, and inadequate (Crittenden, 2006).

Vulnerable-to-crisis families are generally adequate caregiving families that are pushed over the

edge by immediate stressful problems. The loss of a job or the birth of a handicapped infant, for example, can severely strain most parents' ability to cope with the normal demands and frustrations of child rearing. Especially if other relatives or friends are unresponsive, the children might become the target of their parents and be blamed for problems they never created.

About one-fourth of all substantiated maltreatment occurs in vulnerable-to-crisis families. Usually, they realize they have a problem, and this makes them receptive to services such as crisis counseling and parent training. Once the parents learn to cope with their specific problem more effectively—a process that usually takes less than a year—they are again able to provide adequate child rearing.

Restorable families make up about half of all maltreating families. The caregivers in restorable families have the potential to provide adequate care and perhaps have done so in the past, but a number of problems—caused not only by their immediate situations but also by their past histories and their temperaments—seriously impair their parenting abilities. A single mother, for example, might have untreated medical problems, inadequate housing, and poor job skills, all of which fray her quick temper and cause her to explode just as her father did when she was a disobedient child. Or a binge-drinking husband might periodically beat his children, perhaps with the tacit permission of an overly dependent, isolated wife, who herself may have come from an abusive home. Or a teenage couple might be both immature and addicted to drugs, with the result that they disregard their infant's basic needs or seriously overestimate his or her abilities.

Treatment for restorable families requires a case-worker who has the time and commitment to become a family advocate, mediating and coordinating various services (for example, making sure the local clinic provides low-cost and appropriate medical care, securing transportation and prescription medicine, or helping drug addicts not only acknowledge their dependence but also find a network of former addicts to provide support). The goal is not just child protection but family support, emotional as well as material. With such intense help, restorable families eventually become successful ones.

Supportable families make up about one-fifth of all maltreating families. They probably will never function adequately and independently, but with continual support they might meet their children's basic needs for physical, educational, and emotional care. The support might be as simple as daily home visits by a nurse or housekeeper or as involved as moving the entire family to a special residence that provides ongoing medical attention, day care, recreation, social work, and group therapy. Unfortunately, such intense support services are rarely available to the families that need them most, although some residential programs for battered women or for recovering addicts

come close. Unless support is forthcoming, the children of a supportable family will need to be placed in another home.

Inadequate families constitute nearly 10 percent of maltreating families. They are so impaired by deep emotional problems or serious cognitive deficiencies that the parents or other caregivers will never be able to meet the needs of their children. For children born into these families, long-term adoption, beginning with foster care in infancy, is the best solution.

Crittenden, P. M. (2006). Why do inadequate parents do what they do? In O. Maysless (Ed.), *Parenting representations: Theory, research, and clinical implications* (pp. 384-33). New York: Cambridge University Press.

Internet Activity: Child Maltreatment and Vulnerable-to-Crisis Families

One of the biggest challenges to developmentalists in treating and preventing child maltreatment is tailoring treatment to fit a particular family's needs. One approach has been to categorize families involved in maltreatment as vulnerable-to-crisis, restorable, supportable, or inadequate, as noted in the preceding

Classroom Activity. Vulnerable-to-crisis families are experiencing unusual problems such as divorce, the loss of a job, the death of a family member, or the birth of a handicapped infant. These problems strain caregivers' abilities to cope with the normal demands of child rearing. Ask students to create a fictitious vulnerable-to-crisis family, then use Internet resources to provide guidance and support. Handout 8 will guide their work.

Provide students with comments regarding their creativity, their understanding of this real-world situation, and their ability to obtain relevant information on the Internet.

AV: Foster Care (24 min., Films for the Humanities and Sciences)

Each year, 200,000 children are taken from their homes because of abuse or neglect. This heart-wrenching video profiles the foster care system, as seen through the eyes of three foster children, their parents, social workers, and the judges who must decide their fate.

HANDOUT 1

Developmental Fact or Myth?

- T F 1. By age 6, the child's body is proportionately not very different from that of the adult.
- T F 2. In multiethnic countries, Latinos tend to be somewhat shorter than children of African, Asian, and European descent.
- T F 3. Although the right and left hemispheres of the brain have specialized functions, cognitive skill requires both sides of the brain.
- T F 4. Memories of past experiences are always destructive.
- T F 5. Boys are about 6 months ahead of girls in developing fine motor skills.
- T F 6. Violence, either accidental or deliberate, is the leading cause of childhood death.
- T F 7. All reported cases of maltreatment are substantiated.
- T F 8. Child maltreatment involves not only physical abuse but also failure to meet a child's basic needs.
- T F 9. Most maltreated children are friendlier than other children because they crave attention.
- T F 10. Adoption is the preferred permanent option in preventing maltreatment of older children.

HANDOUT 2

Critical Thinking Activity: Designing a Toy

Now that you have read and reviewed biosocial development during early childhood, take your learning a step further by testing your critical thinking skills on this problem-solving exercise.

Developmental psychologists view play as the major means through which physical, cognitive, and social skills are mastered—especially during the preschool years. Unfortunately, many adults are so imbued with the work ethic that they tend to denigrate children's play. Some even punish their children for "horsing around," criticize preschool teachers for letting children play "too much," or schedule their children's lives so heavily with lessons and chores that there is little time for play.

Your task is to mentally design a toy suitable for a 2- to 6-year-old child, keeping in mind the physical, cognitive, and social needs of preschool children. Then answer the following questions.

1. What is the name of your toy? How does the child play with it or use it?
2. How old is the child for whom the toy is intended? What features of the toy make it developmentally appropriate?
3. What domain or domains of development is your toy designed to stimulate? How are they stimulated?
4. What are some of the specific features of the toy (e.g., size, shape, color, noise-making properties, etc.) that enhance its attractiveness and play value?
5. What considerations should be given to injury control when the toy is used?

HANDOUT 3

Bubbles in the Bowl: Using Developmental Theory to Design Potty Training

Potty training a child is an important, and sometimes stressful, milestone for both parent and child. Scores of products and training schedules have been touted as breakthroughs over the years, with some claiming that a child can be trained by the age of 1, and in only a few days.

This exercise is designed to help you bring the major developmental theories to life by considering how parents, working from each of the grand and emerging theoretical perspectives, would be advised to toilet train their child. For each theory, briefly state:

- developmental issues that might influence toilet training (e.g., muscular control, cognitive maturity)
- practical tips for promoting success (e.g., pour colored shampoo in the toilet so that urinating causes colorful bubbles to form)
- possible causes of failure (e.g., neural immaturity, cultural values)

1. Psychoanalytic theory

2. Behaviorism

3. Cognitive theory

HANDOUT 3 (*continued*)

4. Sociocultural theory

5. Universal theories (humanism and evolutionary theory)

HANDOUT 4

Observational Activity: The Development of Fine Motor Skills

Use the eight-skill checklist developed by Janice Beaty (1990) to assess the child's fine motor skill development. (Before testing, make sure all the materials, which are common items in a home with children, are available.) Then complete the questions on the accompanying handout and return your answers to your instructor.

1. Hand Preference (lateral dominance)

Hand the child an easily grasped toy (such as a rattle, toy hammer, or block) several times to determine if he or she consistently prefers one hand or the other. Infants typically use both hands to grasp objects in an undifferentiated and reflexive manner. By 2½ years, about one-half of all children have established lateral dominance for their hands and feet. By age 3, this percentage has increased to about 70 percent.

Interestingly, there are cultural differences in the development of lateral dominance. By 4½ years of age, for example, only about one-half of all Japanese children have established a dominant hand (Beaty, 1990). The earlier developmental norm in American children has been attributed to the early developmental emphasis that many parents place on handedness (particularly right-hand preference) in their children.

2. Turns Knobs Easily

Turning a key in a lock, cranking an eggbeater or can opener, and twisting a lid off a jar are skills young children delight in. Most 2- and 3-year-olds can easily perform most of the above tasks, although their neuromuscular control is far from perfect and things often slip through their fingers.

3. Pours Liquid Without Spilling

Renowned educator Maria Montessori made pouring exercises a regular part of her “daily living exercises” for fine motor skill development. Have the child pour liquid from a *small* pitcher into a cup or glass. Children younger than 4 may need to use both hands to prevent spilling. And even 5-year-olds, who are still perfecting their control of *grasping and releasing*, may occasionally release their grip and spill accidentally. Janice Beaty believes that too often, teachers, day-care workers, and parents do all the pouring for children, fearing that preschoolers will inevitably make a mess. “There will be accidents,” she notes. “Spills are part of the price our children pay for the complicated task of growing up.”

4. Fastens and Unfastens Zippers and Buttons

Although most 4-year-olds can button, unbutton, and unzip with ease, they still may need assistance starting a zipper. Interestingly, preschoolers in large, single-parent, or economically disadvantaged families—who often are expected to dress themselves at an early age—tend to develop these fine motor skills at an earlier age than do only children, children within intact families, and children who are not economically disadvantaged.

HANDOUT 4 (*continued*)**5. Picks Up and Inserts Objects**

Puzzles, pegboards, string beads, Lego building blocks, and Tinkertoys all require the manipulation of small parts. Virtually all preschool classrooms focus on manipulative play of this sort as an important fine motor skill. Perhaps because the play of young girls tends to focus on fine motor activities more than the play of boys, girls often have greater finger dexterity and eye–hand coordination than boys their age.

6. Controls Drawing Tools

When young children first use crayons or markers, they clumsily clamp their fists around the writing implement in what is called the *power grip*. Very young children may not use their preferred hand as they attempt to color or draw. But with practice, dexterity increases and the more delicate *precision grip*, with fingers and thumb, emerges.

7. Uses Scissors Effectively

Most 4-year-olds can make a good straight cut using scissors. Children younger than 4 show wide variations in this skill, which requires considerable practice and neuromuscular coordination. Make sure the scissors are good ones; attempting to cut paper with dull or mechanically unsound scissors is difficult, even for adults.

8. Hammers Nails with Control

Using a hammer to pound a nail held in the opposite hand is the most difficult fine motor skill on this checklist. Even many adults have difficulty hammering without hitting their thumbs, or missing the nail entirely. Young children should be tested with a plastic or very lightweight hammer, a nail with a large head (preferably plastic or wooden), and a soft material into which the nail can be pounded (such as an acoustic ceiling tile).

Beatty, J. (1990). *Observing development of the young child* (3rd ed.), pp. 191–207. Copyright © 1994. Adapted by permission of Prentice Hall, Upper Saddle River, New Jersey.

HANDOUT 5

Observational Activity: The Development of Fine Motor Skills: Follow-Up Questionnaire

1. Describe the participant (age, sex, etc.) and the setting you chose for the fine motor skill assessment.

2. Did you encounter any difficulties in completing this observational activity?

3. Fill in the following table to summarize your subject's fine motor skill performance. In the space below each checked skill, briefly describe the task on which the child demonstrated the skill in question.

Yes

No

_____ _____ Hand preference? If yes, which hand?

_____ _____ Turns knobs easily?

_____ _____ Pours without spilling?

_____ _____ Fastens/unfastens buttons and zippers?

_____ _____ Picks up and inserts small objects?

_____ _____ Uses crayons effectively?

_____ _____ Cuts using scissors?

_____ _____ Hammers nail?

HANDOUT 5 (*continued*)

4. On the basis of your assessment of the child's fine motor skill development, pick one or two skills that need strengthening and describe at least three activities that would help the child develop each skill.

HANDOUT 6

Childhood Accident Record

Children between 2 and 6 years old are generally very susceptible to accidents because they are extremely active and unaware of potential danger. If you cannot remember accidents from your own childhood, ask a relative if he or she recalls any. Alternatively, ask a relative with children in this age group to tell you about his or her children's accidents.

1. Make a record of the accidents you sustained during early childhood. Or, if you prefer, make a record of the accidents sustained by one of your siblings or a child you know who was (or is) "accident-prone." List broken bones, cuts requiring stitches, automobile accidents, and ingestion of poisons.

Accident

Age of Occurrence

2. Review the accidents listed above. Could any of them have been prevented? If so, describe some possible preventive measures.
3. Do you know of any laws passed recently to protect children from accidents? Can you suggest any laws that might be particularly helpful?

HANDOUT 7 (*continued*)

3. Have you ever encountered a situation in which you suspected a child was the victim of abuse or neglect? What did you do, and why?

4. If it were in your power to completely shape the social context in which a child grew up, what steps would you take to help ensure that he or she would be protected from maltreatment?

