

Instructor's Classroom Kit, Volume I

for

Cook and Cook

Child Development Principles and Perspectives

Second Edition

prepared by

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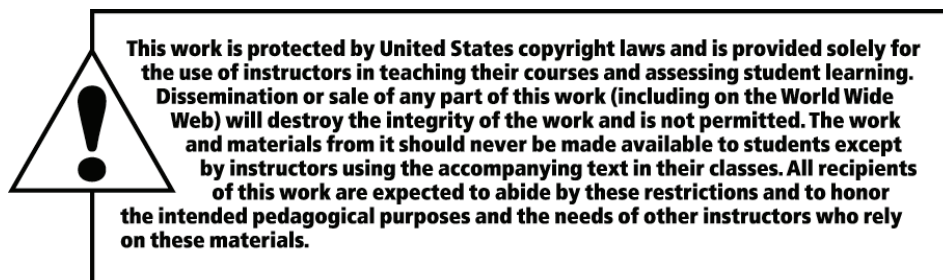
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Introduction to the Instructor's Classroom Kit System

Congratulations on choosing Cook and Cook's new *Child Development: Principles and Perspectives, 2nd Edition* as the text for your course on child/adolescent development. We are sure that you will find the book to be an excellent resource as you introduce human development from infancy through adolescence to your students. Our part in this process was to develop instructor's resources to accompany this book, which could be used to guide both you and your students through the teaching/learning process. Below you will find a detailed description of the major sections of the Instructor's Classroom Kit Volume 1 and Volume 2 materials that we generated for this purpose.

The first section of each chapter from the Instructor's Classroom Kit contains the Instructor's Manual resources, which were prepared by Judy Collmer. The Instructor's Manual portion is organized into the following sections:

Chapter-at-a-Glance

Each chapter opens with a "*Chapter-at-a-Glance*" grid that provides a quick snapshot of not only the Kit resources but also relevant MyDevelopmentLab assets available to you, the instructor.

Teaching Objectives

The "Teaching Objectives" section contains a list of specific chapter objectives that provides a clear set of goals to keep in mind when preparing your lectures on each chapter. These objectives can be used to help focus lecture content, or as discussion or essay questions.

Key Terms

This brief section offers an alphabetical listing of all the key terms in each chapter with page references from the main text.

Integrated Teaching Outline

Integrated Teaching Outline of the Instructor's Manual portion of the Kit will come in very handy when you are planning your lecture sequence and content. Organized into a unique "Question/Answer" format, this section provides student Learning Objective Questions or **LO's** and a detailed "answer" as a launching point for class discussion. For the most part, the majority of information in this section is drawn directly from the writings of the authors. However, we have elaborated where necessary with alternative examples and more details to enhance your understanding of these answers. Each Q/A section also includes references to relevant additional resources from the Instructor's Manual portion of the Kit described below:

Lecture Extensions

As the name implies, each Lecture Extension goes beyond the text with ideas and detailed information about selected topics touched upon in the text. Every effort was made to pick topics that students and faculty would find interesting and issues that would enhance the student's understanding of child and adolescent development. Citations to

reference material that you could use to become more familiar with the topic are also included.

Classroom Activities and Handouts

These projects can be used in the classroom to enhance the lecture experience for students or assigned as outside activities. Instead of being generic, “go-to” activities that may be found in any child development text, each activity included here is closely tied to the specific content of *Child Development: Principles and Perspectives, 2nd Edition*.

Text Internet Activity

This brief section includes a description of an on-line activity that can be assigned as an out of class activity.

Web Links

Here we provide you with an annotated list of stable URLs to access web-based sites linked to chapter content. Please keep in mind that one danger in including web sites in a resource like this is that the Internet is a very fluid method of sharing information. Therefore, some links that we provide for you here may be out of date by the time you are using this resource. For this reason, we have made a concerted effort to select sites that are more likely to remain (e.g., those linked to long-standing organizations).

Additional Suggested Readings

In the “Additional Suggested Readings” section, we have included a list of book and journal references tied to the main issues found in each chapter. Rather than selecting “classic text” (many of which are cited in the text), we have provided a list of more current resources.

Test Bank

The Test Bank portion of the Classroom Kits provides thoroughly reviewed questions, prepared by David Baskind, that target the key concepts from each chapter of the textbook. There are approximately 2,000 questions total, ranging in type from multiple-choice, completion (both short answer and fill-in-the-blank), and concise essay questions. ***New to this Edition!*** We are not offering two concise essay questions per chapter that test applicable MyDevelopmentLab assets.

Each question is fully referenced with correct answer, page reference from the main text, level of difficulty (scaled from 1-3, 3 being most challenging), and skill type (factual, conceptual, applied). The Instructor’s Classroom Kit Volume 2 CD-ROM has an electronic version of the test bank so you can easily build tests in Microsoft Word®. We also offer this same Test Bank in the TestGen Computerized Test Bank software, which can be downloaded from the Instructor’s Resource Center at <http://www.pearsonhighered.com>.

A note from your Test Bank Author:

As educators, we hope that learning takes place. Without learning, does teaching even really occur? So, how do we know whether students have accurately understood the material? Tests are just one way to assess students' knowledge. My hope is that the questions contained in this testbank will make your life a little easier by providing you with some suggestions for questions you might use to assess learning. Question everything!

PowerPoint® Presentations

Also included for each chapter are print-outs of the lecture outline PowerPoint® Presentations that were prepared by Kristy Huntley. Use the print-outs to plan your lectures, take notes, or distribute them as handouts for your students. The electronic version of the lecture outline and art only PowerPoint® Presentations are available on the CD-ROM packaged with Volume 2 as well as on our Instructor's Resource Center online at <http://www.pearsonhighered.com>. The lecture outline version contains selected, permissible figures from the text but you also have the option to add any or all of the figures available in the art only version.

The *Appendix* in each volume of the Instructor's Classroom Kit contains one sided, perforated handouts that are referred to in the activities.

To bolster this Instructor's Classroom Kit system, we strongly urge you to review the *GradeAid Student Workbook with Practice Tests* as a resource for your students. This student supplement has been completely overhauled by Jane Sheldon and is an exemplary study guide to help students get the absolute most out of the material presented in the book.

Thank you again for choosing *Child Development: Principles and Perspectives, 2nd Edition*! It is our sincere belief that using the materials in this Kit will enhance the educational experience for both you and your students.

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Chapter 1

Exploring Child Development

Chapter-at-a-Glance

Brief Outline	Resources	Test Bank	PowerPoint	MyDevelopmentLab Connection
Defining the Field (p.2-5) What Develops? What Drives Development? Nature, Nurture, and Reciprocal Relationships	LOs* 1-5 Lecture Extensions 1.1-1.2 Activity 1.1 Web Links 1.1-1.3	MC 1-9 SA 1 FI 1-3	Slides 3-8	LISTEN *Nature-Nurture Debate
Theories Of Child Development (p. 6-18) What is a Theory, and Why Are Theories Useful? Psychoanalytic Theories Behavioral and Social Learning Theories Cognitive Theories Biological Theories Contextual and Systems Theories	LOs 6-23 Lecture Extensions 1.3-1.4 Activity 1.2-1.5 Web Links 1.4-1.15	MC 10-55 SA 2-5 FI 4-11 ES 1-2	Slides 9-25	EXPLORE *Key Theories in Developmental Psychology *The Id, Ego, and Superego *Freud's Five Psychosexual Stages of Personality Development *Erikson's First Four Stages of Psychosocial Development *Classical Conditioning Matching Game *Bandura's Study of Observational Learning *Human Development: No Man Is an Island *The Saping Process BIOGRAPHY *Profile of B.F. Skinner
Using the Scientific Method: Research in Child Development (p. 19-27) Descriptive Research Methods Correlational Research Methods Experimental Research Methods Methods for Assessing Development Ethics in Research with Children	LOs 24-35 Lecture Extensions 1.5-1.7 Activity 1.6-1.7 Web Links 1.16-1.17	MC 56-90 SA 6-7 FI 12-15 ES 3	Slides 26-34	EXPLORE *Correlations Do Not Show Causation *Cross-sectional and Longitudinal Research *Interactive Correlation
Applications of Child Development Research and Careers Related to	LOs 36-37 Activity 1.8-1.9	SA 8-10	Slides 35-37	

CHAPTER 1

Children (p. 28-32) Practical Applications of Child Development Research Careers Related to Children	Web Links 1.18			
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MyDevelopmentLab Essay Questions

<u>Question 1</u>	<i>*Explore: Dolphins at Sea World</i>
<u>Question 2</u>	<i>*Explore: Types of Reinforcement in Humans</i>

Key Terms

behavior genetics (p. 4)	information-processing approach (p. 14)
behaviorism (p. 10)	longitudinal method (p. 25)
child development (p. 2)	nature (p. 4)
classical conditioning (p. 10)	neuropsychology (p. 15)
cognitive development (p. 3)	nurture (p. 4)
cognitive-developmental theory (p. 13)	operant conditioning (p. 12)
correlational method (p. 21)	physical development (p. 2)
cross-sectional method (p. 25)	psychoanalytic theories (p. 7)
descriptive methods (p. 20)	social development (p. 3)
dynamic systems theories (p. 17)	social learning (p. 12)
ecological systems theory (p. 16)	social policy (p. 29)
ethology (p. 14)	sociocultural theory (p. 13)
experimental method (p. 23)	theory (p. 6)
	variability (p. 23)

Teaching Objectives

At the end of this chapter, students should be able to:

1. Define child development and identify related research areas.
2. Describe the three components of child development (i.e., physical, cognitive, and social) and give examples of each.
3. Discuss the importance of nature and nurture in child development.
4. Describe behavior genetics and identify three ways in which researchers in this field study child development.
5. State the definition of a theory and describe five functions of theories.
6. Construct a table comparing and contrasting the main theories of child development.
7. Discuss how an individual's views of how children change will differ depending on which theoretical perspective he or she adopts.
8. List and define at least four different descriptive research methods.
9. Interpret correlations in terms of their directionality and strength.
10. Identify the advantages and disadvantages of using correlational research.
11. Describe the experimental method and explain how it differs from correlational research.
12. Explain how cross-sectional, longitudinal, and hybrid designs differ in their assessment of developmental effects.
13. Discuss ethical issues that arise in conducting research with children and summarize the most important ethical principles guiding this research area.
14. Define social policy and explain how it can be influenced by research in child development.
15. Explain different ways in which parents and professionals can use child development research to guide their interactions with children.
16. Discuss different career opportunities that are available in the field of child development.

Integrated Teaching Outline

DEFINING THE FIELD

LO1. Define the field of child development.

Researchers from many disciplines (e.g., psychology, biology, sociology) conduct studies on child development. The goal of their research is to identify the changes that occur from infancy through adolescence and to identify any developmental trends (patterns of change) common to groups of children. By understanding child development we are better able to assist children in need and to predict events that might negatively impact the developmental process. In addition, understanding child development can assist in understanding our own development.

→ Web Link 1.1

What Develops?

LO2. Describe the three main components of child development.

While children develop in many ways, developmental psychologists tend to focus on development in three areas. One area involves physical development. Physical development includes topics like changes in height, weight gain, and sexual maturity. A second area is referred to as cognitive development. Cognitive development includes topics related to changes in information processing (e.g., memory, attention), intelligence, language, and other thinking skills. The final major component of childhood change is social development. Social development includes issues related to the acquisition of self-understanding and interpersonal relationships. Examples of social development issues include sexual identity, peer interactions, and the formation of intimate relationships.

What Drives Development? Nature and Nurture

LO3. Discuss the basic premise of the nature versus nurture debate in developmental psychology.

The two main forces influencing human development are nature and nurture. Nature refers to any biological influence and includes concepts like genetic, inherited, innate, biological maturation, and pre-wired. Nurture refers to any environmental experiences that impact development. Concepts reflecting a nurture position include learned, acquired through experience, educated, upbringing, and peer influence. For centuries individuals have debated whether human development is best explained as a result of the influence of nature or nurture. During the past few decades, more researchers have backed away from an all-nature or all-nurture position and now view development in terms of an interaction between both forces of nature and nurture.

→ Lecture Extension 1.1

→ Activity 1.1

→ LISTEN “Nature-Nurture Debate”

LO4. Provide examples of how specific philosophers and scientists have addressed the nature versus nurture debate.

Throughout history, individuals have debated whether human development is better explained as the result of biological (nature) or experiential (nurture) factors. These individuals include Plato (who advocated maintaining “superior bloodlines” through selective breeding) and Descartes (who believed that goodness and morality were innate). Both of these beliefs provide good examples of the nature position. Conversely, two Johns (Locke and Watson) argued in favor of the nurture position. In the 1600s and 1700s, Locke hypothesized that infants were born with minds like blank slates that were written on by experience. John Watson brought this notion into the 1900s by arguing that he could take any healthy and well-formed infant and train them to become any type of specialist that we wanted.

→ Web Link 1.2

LO5. Describe behavioral genetics and the methods used by behavioral geneticists to solve the nature-nurture debate.

Behavioral genetics is the study of the impact of genes on behavior. In order to determine this impact behavioral geneticists compare pairs of individuals with varying degrees of genetic similarity (e.g., identical twins who are genetically very similar, adoptive siblings who are genetically dissimilar). They also conduct research comparing the behavior of adoptive with that of biological and adoptive parents. The logic of this research is that if the behavior of two people who are genetically alike (e.g., identical twins) is more similar than that of two people who are genetically dissimilar (e.g., strangers) then the behavior likely has a genetic basis. For example, behavioral geneticists believe that the fact that the IQ scores of an adoptive child are more similar to those of their biological mom than their adoptive mom supports their claim that nature plays a greater role in intelligence than does nurture.

→ Lecture Extension 1.2

→ Web Link 1.3

THEORIES OF CHILD DEVELOPMENT

What Is a Theory, and Why Are Theories Useful?

LO6. Discuss the important role that theories play in research on child and adolescent development.

Theories are often described as an overall framework concerning how facts are organized and related. In psychology, theories can also be thought of as a set of assumptions concerning the underlying cause of behavior and rules that specify conditions in which these causal factors operate. Theories are not proven facts, but rather a set of dynamic beliefs that are subject to empirical investigation that can result in the theory being supported, modified, or rejected. As the text authors note, theories serve at least five critical functions. These functions include helping us to summarize current knowledge and facts about a topic, allowing for the prediction of future events and behaviors, providing guidance to professionals and non-professionals, stimulating new research and discoveries, and impacting (filtering) what is considered relevant information for researchers to investigate.

→ Activity 1.2

→ EXPLORE “Key Theories In Developmental Psychology”

Psychodynamic Theories

LO7. Describe the role of the unconscious mind in Freudian theory.

Freud believed that conflict within the unconscious mind was responsible for most psychological problems. In order to tap into the unconscious mind, he employed techniques like free association (when a person is asked to talk about anything that enters their conscious mind), dream interpretation (Freud believed that elements of the unconscious mind often impacts dreams), and detailed clinical interviews.

→ Lecture Extension 1.3

→ Web Link 1.4

→ Activity 1.3

LO8. Differentiate between the id, ego, and superego.

Freud suggested that the mind is a dynamic battlefield in which the mental components of the id, ego, and superego often find themselves in conflict. The id (unconscious mind) is proposed to be present at birth and contains powerful drives like those concerning sex, hunger, and thirst. This primitive element of personality is sometimes referred to as being driven by the “pleasure principle,” as it always wants and wants right now! The ego (conscious mind) is thought to develop a few months after birth when a child becomes aware of their self and the fact that they do not always get what they want. This element of personality is sometimes referred to as being driven by the “reality principle,” as it tries to realistically negotiate with the driven id. The final component is the superego or conscience. Freud believed that the superego would develop during the phallic stage when a child realized that it is wrong to think about having sex with a parent. The superego contains our moral and ethical standards and is designed to ensure

that we meet our cultural standards. This superego is sometimes referred to as being driven by the “perfection” principle (i.e., always try to do the right thing).

→ EXPLORE “The Id, Ego, and Superego”

LO9. Describe Freud’s psychosexual stages of development.

Freud suggests that human development progresses across five stages of development. During each of the stages, the main drive is to satisfy our pleasure needs. Freud realized that there are differences in the manner in which children and adolescents are able to gratify their needs. For example, he believed that infants (0–18 months) tend to rely on oral gratification (the oral stage). They not only do this when hungry, but also when anxious (e.g., many children relax when sucking on a pacifier). By 18–36 months, toddlers have developed the ability to move around and gain a sense of mobility independence.

Unfortunately, during this time the environment places greater demands on a child. For example, while the infant can urinate/defecate whenever it wants, parents begin to demand that the child go to a room and sit on a toilet before performing these bodily functions (i.e., toilet training). Freud believed that this child-parent interaction could result in trauma that may become internalized. From around three to six years of age, a child enters what Freud called the phallic (symbolic sex) stage. During this time a child becomes sexually attracted to the opposite sex parent. Hopefully, the child learns that such wants are wrong and is able to repress these desires. If they can, they will develop a conscience (superego with a sense of morality). From age six to twelve, children are in the latency stage of development. During this sexual desire wanes and children often form strong same-sex relations. The final stage is called genital (as in real sex organs and sex drive) stage and begins in puberty. Freud believed that from this point until death we are relentlessly driven by unconscious sexual desire.

→ EXPLORE “Freud’s Five Psychosexual Stages of Personality Development”

LO10. Discuss the psychodynamic concept of fixation.

According to Freud, if a person receives too much or too little gratification during any of the five psychosexual stages, it may have long-term negative impacts on personality development. Thus the phrase “anal fixation.”

→ EXPLORE “Psychosexual Stages”

LO11. Discuss Erikson’s version of psychodynamic theory.

Like Freud, Erikson believed that both components in the unconscious mind and life experiences play a role in the development of personality. While they agree on this and many other points, Erikson’s version of psychodynamic theory differed from Freud’s in a number of ways. Freud tended to be fairly pessimistic and saw normal development as typically resulting in a neurotic individual. Erikson was more optimistic and focused on more healthy development of ego identity (self). Freud viewed development in terms of the passage through five psychosexual stages (an emphasis on sexual satisfaction), the last of which began in adolescence. Erikson viewed development in terms of the passage through eight psychosocial stages (an emphasis on social crises), the last of which began in late adulthood.

→ EXPLORE “Erikson’s First Four Stages of Psychosocial Development”

→ Web link 1.5

Behavioral and Social-Learning Theories

LO12. Describe the fundamental premise of behaviorism.

Behaviorists argue that the science of psychology should study only observable events (i.e., behaviors). As you might guess, behaviorists are often at odds with psychodynamic theorists who emphasize unobservable concepts like the ego and id.

→ EXPLORE “Classical Conditioning Matching Game”

LO13. Describe the classical conditioning theory of Pavlov and Watson.

In classical conditioning, learning is believed to occur when an unconditioned stimulus (an event that automatically elicits a response) is repeatedly paired with a neutral stimulus (an event that does not automatically elicit a response). After such pairing, the neutral stimulus may become a conditioned stimulus (a learned stimulus) capable of eliciting a conditioned response similar to the original unconditioned response. Ivan Pavlov demonstrated the power of classical conditioning by showing that when the unconditioned stimulus of meat powder (that leads to the unconditioned response of salivating) was repeatedly paired with the neutral stimulus of a ringing bell, a dog eventually would salivate to the bell alone. Thus, the bell had become a conditioned stimulus. Watson was able to show that an infant named Albert could learn to fear a white rat via conditioning. In Albert's case the unconditioned stimulus was a loud noise, the unconditioned response was crying, and the neutral stimulus that became a conditioned stimulus was a white rat. Watson firmly believed that environmental factors were the most important determinant of a child's behavior.

- Web Link 1.6
- EXPLORE "Classical Conditioning of Little Albert"
- EXPLORE "The Three Stages of Classical Conditioning"

LO14. Describe the operant conditioning theory of Skinner.

The main focus of B. F. Skinner's operant conditioning theory was on the role consequences play in impacting the probability of a future response. For example, after a child has responded by cleaning their room, a parent could give them a piece of candy that the child wanted. This consequence (the candy) would likely increase the probability that the child will repeat the behavior (clean their room) in the future. Skinner used the term reinforcement when referring to any consequence that results in an increased probability of a response occurring in the future. Sometimes a consequence has a different impact. Let's say that a child has just said a swear word (a response) and a parent gives them a spanking (a consequence), something the child does not want. In this case, the consequence would likely result in a decreased probability of swearing. Skinner used the term punishment when referring to any consequence that results in a decreased probability of a response occurring in the future. In this theory, the term operant refers to the fact that children will begin to operate on their world in an effort to gain reinforcement and avoid punishment.

- Lecture Extension 1.4
- Activity 1.4
- Web Link 1.7
- BIOGRAPHY "Profile of B.F. Skinner"

LO15. Describe Bandura's social learning approach.

Albert Bandura expanded on the classical and operant conditioning theories by introducing the concepts of observation and imitation. He suggested that children often acquire a response by watching someone else engage in a behavior. He further suggested that this type of learning could take place without the child directly receiving any consequence. For example, a child might be walking by a park and see his first baseball game. Bandura suggested that after viewing the event, the child might pick up a stick and begin to swing it like he saw the players swing the bat. Bandura did believe that punishment and reinforcement could impact a child's decision to engage in a behavior. For example, if the child saw a person swing the bat, hit the ball, and receive congratulations from teammates, this would likely increase the odds of them swinging the stick like a bat. In later work, Bandura suggested that thinking might play a role in determining a child's behavior. This view is at odds with traditional learning theory and has resulted in the new version being referred to as social-cognitive theory.

- Web Link 1.8
- EXPLORE "Bandura's Study of Observational Learning"

Cognitive Theories

LO16. Describe Piaget's cognitive-developmental theory.

Swiss psychologist Jean Piaget developed one of the first theories of cognitive development. His theory was based on the idea that the mind contains “mental schemes.” These schemes might best be thought of ideas concerning either some concept or some behavior. For example, a child might hold a mental scheme for “dog” containing basic elements (e.g., it has four legs, a tail, and barks) used to discriminate a dog from other animals. Other schemes may involve some physical activity. The text description of a “grasping scheme” used by infants when they first begin to grab an object with one hand is a nice example of a physical activity scheme. Piaget proposed that schemes develop through the processes of assimilation and accommodation. In assimilation, new information is brought into a scheme that already exists in the mind. For example, a child with the “dog” scheme described above may see a puppy fetch a ball and assimilate the information “dogs fetch” into their dog scheme. Sometimes the child is forced to significantly modify or even to create some new scheme. Using the text example of grasping, a child may come to realize that in order to lift up a puppy, they must grasp it with two hands. The understanding that some tasks require a two-hand grasp represents an accommodation of the original one-hand grasp. Piaget hypothesized that cognitive development proceeded through four qualitatively distinct stages: sensorimotor, peroperational, concrete operational, and formal operational thought.

→ Web Link 1.9

→ EXPLORE “Human Development: No Man Is An Island”

LO17. Describe Vygotsky's sociocultural theory.

Russian psychologist Lev Vygotsky believed that culture and language play a significant role in cognitive development. He saw culture as impacting the types of psychological tools (ideas and/or methods of problem solving) that a child acquires. For example, a female child who lives in a culture where females are treated as second class citizens (i.e., cannot vote or own property) would likely hold different ideas about career opportunities than a female child who lives in a cultural where females are treated as equals. Concerning language, Vygotsky suggested that children initially learn through “social speech” (i.e., language spoken to you by others). As they grow more sophisticated, children begin to engage in “private speech” (i.e., they talk to themselves). Ultimately, a child acquires the ability to engage in “inner speech” (i.e., thinking to one's self). The ability to think out problems rather than have the problem explained by someone else is seen as critical to cognitive advancement.

→ Web Link 1.10

LO18. Describe information-processing theory.

As the name implies, information-processing theory focuses on cognitive skills like storage and retrieval of memory, the speed and accuracy of processing, and the acquisition of knowledge.

Biological Theories

LO19. Discuss ethology and the work of Lorenz.

Ethologists are interested in the role that biological and environmental factors play in development. They are particularly interested in the instincts (automatic reactions to stimuli) and critical periods of development. Ethologists often conduct research on non-human species like birds, rats, and primates. Relying on an evolutionary perspective, they believe that learning about non-human species can provide some insight into human behavior. Konrad Lorenz's imprinting work with goslings provides an excellent example of research from the ethological perspective. Lorenz's research was based on the observation that shortly after birth many precocial animals (i.e., those able to survive on their own) like goslings often appear to form a natural connection to their mothers. This connection involves following them around. Lorenz investigated this phenomenon called imprinting and discovered two things. First, imprinting was not always to mother. Rather it tends to be to any large moving object encountered shortly after birth (including Lorenz himself). Second, there is a critical period to this instinctive behavior. As long as the gosling encounters the large moving object within a few days of hatching, it will imprint. If denied access

to such objects it will never imprint, even if it is reintroduced to mom. Lorenz's research led others to investigate the related phenomena of infant bonding and attachment.

- Web Link 1.11
- EXPLORE "The Saping Process"

LO20. Describe neuropsychology.

Neuropsychology is the scientific study of the relationship between the functions of the central nervous system (brain and spinal cord) and the way an organism thinks, feels, and acts.

- Web Link 1.12
- EXPLORE "Types of Reinforcement in Humans"

LO21. Differentiate between computerized tomography, positron emission tomography, and functional magnetic resonance imaging.

The development of new technologies has led to significant advancements in our understanding of the relationship between the brain and behavior. Three techniques for investigating brain activity are computerized tomography (CT), positron emission tomography (PET), and functional magnetic resonance imaging (fMRI). The CT scan is simply a series of computer enhanced x-rays that generate a 3-dimensional image of the brain. A CT is conducted to provide insight into the structure of the brain.

During a PET, a person is given an injection of radioactive dye which is then traced as it breaks down within the brain. In most cases, an individual undergoing a PET will be asked to perform some cognitive activity (e.g., reading, math calculation) and the researchers will attempt to see which brain areas become active during the task. A PET is conducted to provide insight into the function of the brain. An fMRI allows researchers to identify metabolic changes occurring within the brain. The fMRI is also conducted to provide insight into the function of the brain.

- Web Link 1.13

Systems Theories

LO22. Describe the premise and layers of systems in Bronfenbrenner's ecological systems theory.

Urie Bronfenbrenner viewed child development in terms of an ecosystem. Rather than focusing exclusively on events that directly impact a child (like Skinner's reinforcement and punishment based model), Bronfenbrenner saw development occurring within a system of layers of events, each more removed from a specific individual and larger in scope. Bronfenbrenner saw the individual as a focal biopsychosocial point influenced by their biology (e.g., genetic factors), their psychology (e.g., ways of thinking), and their social environment. He conceptualized this social environment in terms of layers of influence radiating out from the child. The first layer is the microsystem. The microsystem includes events and items idiosyncratic to that child (e.g., the way they are treated by parents, toys available for them to play with). The next layer is the mesosystem. The mesosystem connects the child to broader societal influences. The text example of parental involvement in a child's school activities that results in the parents taking a more active role in the child's education is a good example of a mesosystem. The exosystem represents the next layer. This system consists of events well beyond the child's direct experience that eventually trickle back to the child. A good example would be the child's parent's workplace rules. A workplace allowing great flexibility in scheduling could allow a parent to be home more with the child. A workplace that pays poorly would impact the child's accesses to food and leisure activities. Bronfenbrenner's broadest layer is called the macrosystem and includes overall cultural effects. A child raised in a third-world nation with little access to medical care would likely develop differently than an individual in a wealthy nation with free quality medical care. The final layer of Bronfenbrenner's theory is the chronosystem. Chrono, which means time, gives a hint as to the nature of this layer. Bronfenbrenner is one of the few theorists to include history into the developmental equation by suggesting that when someone lives will impact their development.

- Activity 1.5

→ Web Link 1.14

LO23. Discuss dynamic systems theory.

The newest theoretical approach to describing child development borrows a modeling system more commonly seen in physics and math. According to dynamic systems theorists, human development is extremely complicated and the old system of attempting to identify the single nature or nurture cause of a behavior is too simplistic. Dynamic systems theorists view development as a process that changes with time. Like ecological systems theorists, dynamic systems theorists believe that development is influenced by elements both outside and within the child. A unique element of this approach is the focus on “attractor states.” According to the model, early development tends to be random and/or chaotic. As the child begins to develop a more stable sense of self, their development becomes influenced by attractor states that are best thought of as the child’s preferred modes of thoughts, feelings, and actions. Thus, if we know that a child begins to define him or herself as physically fit, we can predict that the child will seek out physical activities (e.g., play sports in school) and seek to control their weight (e.g., eat better or take nutritional supplements). Dynamic systems theorists hypothesize that factors sometimes act to challenge or alter an attractor state. For example, an adolescent taking a nutritional supplement may learn that the substance is dangerous. This could alter their attempt to maintain a specific body type.

→ Web Link 1.15

USING THE SCIENTIFIC METHOD: RESEARCH IN CHILD DEVELOPMENT

Descriptive Research Methods

LO24. Define descriptive research methods.

A descriptive research method is designed to gather information that can be used to allow a researcher to describe some element of behavior. Examples of elements include who did it, when did it happen, and how often did it happen.

LO25. Differentiate between naturalistic and structured observations.

The main difference between a naturalistic and a structured observation is the amount of influence the researcher has over the situation being observed. In the case of a naturalistic observation, the researcher goes to great lengths to ensure that they do not influence the situation in any manner. Their goal is to study the behavior when it naturally occurs. For example, a researcher interested in aggressive behavior in children might go to a playground and record the actions of kids as they play. In most cases, the researcher would attempt to stay out of sight as children would likely alter their behavior if they knew someone was watching them. An advantage of this technique is its high ecological validity (a fancy term for real-life accuracy). Disadvantages of this method includes a lack of ability to ensure the behavior occurs and the fact that the more hidden the researcher becomes, the more likely it is that they may miss seeing some behavior occur. In a structured observation, a researcher sets up an environment designed to elicit the behavior. In our example, a researcher might bring children into a laboratory setting and tell them to play together. The researcher would then observe them, perhaps using a one-way mirror. The advantage of this technique is that it is more likely to elicit the behavior of interest in a manner that can be observed by the researcher. A major disadvantage of this technique is the artificial nature of the event.

LO26. Describe a self-report.

During a self-report study, children are directly asked questions about a topic. The self-report could involve an interview in which the questions are asked by a researcher or a questionnaire in which the child reads and responds to the questions. While they are useful for gathering data, self-reports have some drawbacks. In the case of an interview, children may be hesitant to answer truthfully to sensitive questions (e.g., Do your parents hit you?). They also may simply give the answer that they believe the interviewer wants to hear. In the case of questionnaires, potential problems include young children’s ability to read and understand the question and the possibility of poorly written or biased items (e.g., Do you still beat your dog?).

LO27. Describe a case study.

A case study is an in-depth investigation typically conducted on a specific child or small group of children whom all have displayed some exceptional behavior (e.g., musical genius, violent offender). Researchers conducting a case study use multiple measures (e.g., standardized tests, interviews, direct observations) to gather data. In addition, they often gather information from multiple sources (e.g., the child, parents, peers, teachers). The advantage of this technique is the wealth of information generated. The big drawback is the fact that information from a case study is idiosyncratic to the child or group and thus you cannot generalize issues of cause and effect to other populations. For example, if you find that a music genius was breastfed until age 4 years, that does not mean that all children who are breastfed until age 4 will become music geniuses.

Correlational Research Methods: Measuring Associations*LO28. Describe correlational coefficients.*

Researchers often wonder if two variables may be associated (e.g., is maternal alcohol consumption associated with birth weight?). In order to determine this possible connection, the researcher may compute a statistic called a correlation coefficient (designated as “ r ”). The question that can be answered by such a calculation is, “do these factors vary together?” Regardless of the type of correlation calculated, the result of the correlation will always be a number between +1.0 and -1.0. The key to interpreting the correlation score is to consider both the direction (positive or negative) and strength (magnitude) of the score. Concerning direction, any correlation greater than 0 (e.g., +.24) is considered positive. A positive correlation indicates that the two factors being assessed vary in the same direction (i.e., as one goes up, the other goes up). Any correlation less than 0 (e.g., -.24) is considered negative. A negative correlation indicates that the two factors being assessed vary in opposite directions (i.e., as one goes up, the other goes down). This is referred to as an inverse relationship. The next characteristic is the magnitude of the correlation. In this case, the closer the number is to +1 or -1, the stronger the relationship (i.e., the more likely it is that the factors vary together). Putting it all together, a correlation of +1.0 is a perfect positive correlation, meaning that the factors always vary together in the same direction. A correlation of +.8 would mean that the factors often vary together in the same direction. A correlation of +.3 would mean that the factors sometimes vary together in the same direction. Conversely, a correlation of -1.0 is a perfect negative correlation meaning that the factors always vary together in the opposite direction. A correlation of -.8 would mean that the factors often vary together in the opposite direction. A correlation of -.3 would mean that the factors sometimes vary together in the opposite direction. A correlation score of 0 indicates that there is no systematic relationship between the variables. A major limitation of the correlation is the fact that even when the correlation is at its highest magnitude (i.e., +1 or -1) you cannot use a correlation to prove causation.

- Lecture Extension 1.5
- Activity 1.6
- EXPLORE “Correlations Do Not Show Causation”

LO29. Discuss a path analysis.

At a simple level, a path analysis is best thought of as a statistical calculation in which a series of correlations is computed to see which of several factors best predicts a specific outcome. The text provides an excellent example of the use of a path analysis to predict kindergarten achievement. In reviewing text Figure 1.6, you will note that there is a fairly strong positive relationship (+.43) between classroom participation and achievement, while the quality of teacher-child relationships and classroom participation is lower (+.15). Not surprisingly, the number of mutual best friendships was negatively correlated (-.14) with antisocial behavioral styles.

Experimental Research Methods: Determining Cause and Effect

LO30. Describe the process of conducting an experiment.

In order to conduct an experiment, a researcher has to make several decisions. First, they must select a variable that they believe might cause some behavior or response to occur. They then manipulate that variable by making sure that there are at least two comparison levels of the variable and then assigning different groups to receive each of the levels. The variable that is manipulated is called the independent variable (IV). Next, the researcher presents research participants with some level of the independent variable and measures the behavior they believe will be affected by the presence of the variable. The measured variable is called the dependent variable (DV). For example, a researcher might believe that cigarette smoking causes cancer. In this case, the independent variable would be levels of smoking. The researcher could manipulate this variable by having one group of participants smoke two packs of cigarettes a day, a second group smoke one pack a day, and a third group be smoke free. The researcher would then attempt to control the experiment by making sure that the only differences between the groups were the levels of the IV. Next the researcher would measure the DV they thought would be affected by the IV. In our case, a likely DV would be lung cancer rates. If the only difference between the groups was the IV and significant differences in DV levels were observed, then a cause-effect relationship can be discussed (i.e., cigarette smoking causes lung cancer).

→ Lecture Extension 1.6

→ Activity 1.7

→ Web Link 1.16

LO31. Identify the advantages and disadvantages of the experimental method.

The greatest advantage of the experimental method is that it allows for the determination of cause. Disadvantages include the inability to investigate an issue due to either ethical or practical concerns.

Methods for Assessing Development

LO32. Describe and list the advantages and disadvantages of the cross-sectional research design.

The cross-sectional design is the most common research method used in studying child development. The best way to conceptualize the cross-sectional methods is that it involves different age groups being assessed at the same point in time. For example, a teacher may want to determine if reading improves with age. In the same testing session, they could give a reading assessment test to a group of 5-year-olds, a group of 10-year-olds, and a group of 15-year olds. If they find that the 15-year-olds' reading scores are higher than the 10-year-olds and the 10-year-olds are higher than the 5-year-olds, they might conclude that reading does improve with age. The obvious advantage of the cross-sectional design is the tremendous speed at which a study can be conducted. It is not surprising that this technique is very common (given the fact that most child development research is conducted by faculty who must publish in order to become tenured). While it has an advantage of speed, the cross-sectional design has a severe limitation. In the truest sense, this technique does not assess development (i.e., no participant is measured more than once). This technique actually assesses differences between groups that may be related to factors other than age. In our example, it could be the case that the difference was due to the quality of reading teachers that were available to each group.

→ EXPLORE "Cross-sectional and Longitudinal Research Designs"

LO33. Describe and list the advantages and disadvantages of the longitudinal design.

The longitudinal design is best conceptualized as the same group being assessed at different points in time. For example, a teacher may want to determine if reading improves between ages 5 and 15, so the researcher would first assess the reading abilities of a group of 5-year-olds. The researcher would then wait for five years and retest the children (who are now 10 years old). The researcher would then wait for another five years and retest the children (who are now 15 years old). One advantage of this design is that the researcher can actually track development within an individual. Disadvantages of this technique

include the length of time needed to conduct the study, concerns over differential dropout, and cohort effects. As can be seen by our working example, longitudinal designs often take many years to complete. This is problematic for researchers who need to “publish or perish.” The issue of differential dropout is sometime referred to as “subject mortality.” This comes from the fact that sometimes dropout is actually due to participant death. If participants randomly withdraw from a project, the impact tends to be less severe. In most cases, however, the participants who leave have some common characteristic (i.e., different people drop out than stay). This selective dropout can lead to distortions in the data. For example, let’s say that a researcher is interested in the development of IQ during high school and uses a longitudinal design (assessing individuals their freshman year and then each subsequent year until graduation). If the research finds an IQ score increase from freshman to senior, they are likely to attribute it to changing intellect. Another possibility is that differential dropout may be a better explanation. Students tend to leave school for academic reasons and academic performance is somewhat predicted by IQ scores. Thus, the kids leaving school likely have lower IQ scores. When they are taken out of the subject pool, the average IQ score will rise even if individual IQ scores remain constant. The cohort problem occurs when differences are due to some unique component of the group that was originally selected. Consider a situation in which a researcher is assessing interest in science and the space flight in elementary age children by assessing first graders each year until they finish 6th grade. What if during 6th grade, these students witness the destruction of a shuttle as it returns to earth. In this case, the researcher might conclude that interest in science declines in late elementary school. In reality, this effect would have been due to the unique nature of this cohort group and would not be applicable to students not having witnessed this tragedy at that age.

LO34. Discuss hybrid research designs.

While the majority of child development research is conducted using either a cross-sectional or a longitudinal design, many researchers have begun to use hybrid designs that combine elements of these two approaches. In a sequential (cross-lag) design, the first set of data collection mirrors that of a cross-sectional approach. Let’s assume that the researcher is interested in the development of math skills from 6 to 10. The researcher might begin by assessing one group of 6-year-olds, one group of 8-year-olds, and one group of 10-year-olds. Rather than stopping, the researcher might then wait two years and reassess the 6- and 8-year-olds, which are now ages 8 and 10. Two years later the study would conclude with a measure of 10-year-olds (the same kids who began at 6 and were retested at 8).

→ EXPLORE “Interactive Correlation”

Ethics in Research with Children

LO35. Describe the research ethics standards set forth by the APA and SRCD.

The American Psychological Association and Society for Research in Child Development have established ethical standards to be used when studying child development. To ensure that the standards are adhered to, most colleges and universities have established institutional review boards (IRBs) that review and approve or reject research proposals. When making their decision, the IRB considers many issues. One consideration concerns the risk (cost) to benefit ratio. While it is possible to conduct a study that might put child at some psychological or physical risk, this can only occur if the benefits greatly outweigh the risk. A good medical analogy would involve testing a drug that might lead to some liver damage, but has the potential to cure AIDS. In most cases, the IRB will require methods that emphasize non-harmful procedures. In order to participate in research, an individual must give their consent. In the United States, a person is not considered an adult until they reach age 18. Thus, a child cannot actually give their consent to participate in research (although they may be asked to sign or say that they are interested). Legal consent must be obtained from a parent, guardian, or other legal age adult who is able to give consent on behalf of the child. When conducting a study, the researcher is responsible for eliminating any negative consequences that occur as a result of being in the study (even if the consequences were unforeseen). Privacy is of utmost concern to child development researchers. In most cases, the data is coded by number (not name) to ensure that no specific individual can be matched to a

specific response. In addition, researchers are only allowed to include the name of participants if the participant has given them written permission to do so (a form of informed consent). Ethical guidelines also deal with broader issues. For example, before publishing data, a researcher must consider the implications of their results. Take the case of a study finding differences between the IQ scores of different ethnic groups. A researcher would need to consider the best way to present the data, but in such a manner that it would not imply that one ethnic group is superior to another.

→ Lecture Extension 1.7

→ Web Link 1.17

APPLICATIONS OF CHILD DEVELOPMENT RESEARCH AND CAREERS RELATED TO CHILDREN

Practical Applications of Child Development Research

LO36. Describe practical applications of child development research.

One of the interesting aspects of child development is that it is applicable in so many ways. The connection between the field and parenting is obvious. For decades developmental psychologists have provided research data that has found itself into books, newspaper articles, and onto television. Data from research has also been used to set social policy. For example, the fact that there were millions of children living in, and being negatively impacted by, poverty led President Lyndon Johnson to declare a “War on Poverty” in the early 1960s. This war led to the development of many child-oriented social programs (e.g., Head Start) in existence today. Child development research also helps us develop more effective ways of educating children in and out of the classroom. It has also led to useful advances in therapies designed to help children reach their physical and psychological potential.

→ Activity 1.8

LO37. Identify careers related to child development.

Students who study child development will find numerous career opportunities. Many child developmental psychologists are employed in academic positions. These individuals spend time teaching and conducting research (e.g., college professors). Some child developmental experts are employed as clinicians or counselors with schools (e.g., school counselors), government-run social service agencies (e.g., social workers), or health facilities (e.g., pediatric nurse). Other people with an interest and training in working with children are employed in day care centers, shelters, and YMCA-type facilities. The corporate world also hires individuals with training in child developmental. Examples of corporate jobs include assisting in the development of educational and safe toys, developing child-oriented computer software, and writing scripts for children’s television shows.

→ Activity 1.9

→ Web Link 1.18

Lecture Extensions

Lecture Extension 1.1: Origins of the modern “nature-nurture” debate

A nice way to introduce students to the nature-nurture topic is through a review the origin of the phrase “nature versus nurture.” This phrase can be traced to Sir Francis Galton, who during his investigation of the origins of intellect in the 1800s came to the conclusion that intellect was either determined by inheritance (nature) or education (nurture). His publication *English Men of Science: Their Nature and Nurture* set the tone for the nature versus nurture debate that was to rage for decades. This debate also ignited the modern eugenics movement that played a major role in events like the Holocaust. A presentation of Galton’s work and eugenics provides an interesting (and unsettling) link between the science and society. Listed below are two resources for further information on these topics.

Sir Francis Galton web site:

<http://fates.cns.muskingum.edu/~psych/psycweb/history/galton.htm>

Gillham, N. W. (2001). Sir Francis Galton and the Birth of Eugenics, *Annual Review of Genetics*, 35(1), 83–101.

Lecture Extension 1.2: Strengths and limitations of behavioral genetics

Behavioral geneticists have developed several research techniques to determine the impact of nature and nurture on development. These techniques include comparison of adoptive children with biological parents, adopting parents and siblings, comparing identical to fraternal twins, and family history studies (i.e., Does it run in the family?). To help students see the logic and weaknesses of these approaches, you might discuss the basic logic underlying these techniques. In order to parcel out nature from nurture, you need to hold one variable constant while varying the other. In the case of adoption studies comparing two adopted children (from different parents), the logic is that genetic factors are varied while the environment is held constant. Thus, if two adopted children are similar, the similarity is said to result from environmental factors. If children differ, the aspect of behavior being assessed is thought to be genetically determined. While the technique makes sense, there are some logical concerns. First, assuming that two adopted children have no genetic similarities is risky. In reality, children from different parents still may share genetic characteristics. The environmental assumption is even more tenuous. Assuming that two children receive exactly the same stimulation is problematic. If children have siblings, ask them if they believe they were treated exactly the same way by parents. Chances are they will correctly say no. The articles by Gilger (2000) and Segal (1993) both provide insight into the behavioral genetics approach.

Gilger, J. W. (2000). Contributions and promise of human behavioral genetics. *Human Biology*, 72(1), 229–255.

Segal, N. L. (1993). Twin, sibling and adoption methods. *American Psychologist*, 48(9), 943–956.

Lecture Extension 1.3: Freud in the media

While Freudian ideas are not in the mainstream of psychology, Freudian ideas and images are everywhere. Thus, an interesting launching point for a discussion of psychodynamic theory could involve a review of some of these media portrayals. Great examples include the middle-aged roommates Oscar and Felix in the Neil Simon play “The Odd Couple.” Oscar and Felix were written to characterize two “anally-fixated” men (i.e., both thought to have had trouble during their toilet-training in toddlerhood). While both are fixated at the same stage, their reactions differ greatly. Felix is compulsively clean while Oscar is compulsively dirty. Many of the Disney movies also have strong Freudian themes. One of the best examples is *Pinocchio*, a movie in which a cricket serves as a little boy’s superego (conscience) until

the boy learns right from wrong (gaining his own conscience). In the original *Pinocchio*, the cricket is a minor character who is killed early on in the story. Norman Bates' character in the movie *Psycho* provides a superb example of an individual with an unresolved Oedipal complex (his "mother" actually kills women who sexually excite her "son"). The UK's "Honey, I kidded the shrink..." web site listed below provides an insight into Freud's influence on several famous films.

Honey, I kidded the shrink...web site:

<http://www.observer.co.uk/review/story/0,6903,507916,00.html>

Lecture Extension 1.4: Understanding Skinner's consequences

The consequences identified by B. F. Skinner form the cornerstone of operant conditioning theory and are often used in everyday life. Thus, it may be worthwhile to go beyond the basic text description of reinforcement (a consequence that increases the probability of a behavior) and punishment reinforcement (a consequence that decreases the probability of a behavior) to a broader discussion of the operant elements of "positive," "negative," and "extinction."

The manner in which Skinner used the terms "positive" and "negative" often confuses students. The key point to make is that punishment and reinforcement terms do not reflect value judgments about the event (i.e., positive means something good happens and negative means something bad happens). Positive simply means that the organism is given something. Negative means that something is taken from the organism.

Skinner then combined these elements and generated a list of 5 types of consequences:

positive reinforcement = a organism is **given** something they want following a response in order to **increase** the probability of the response occurring again in the future.

negative reinforcement = a organism has something they do not want **taken** following a response in order to **increase** the probability of the response occurring again in the future.

positive punishment = a organism is **given** something unwanted following a response in order to **decrease** the probability of the response occurring again in the future.

negative punishment = a organism has something they want **taken** following a response in order to **decrease** the probability of the response occurring again in the future.

extinction = an organism receives no consequence following a response. Skinner believed that if no consequence is received, the probability of the response being repeated would decrease.

If you decide to include this expanded discussion of Skinnerian consequences, you might consider doing Activity 1.4.

Lecture Extension 1.5: The dangerous nature of correlations

Students are bombarded by correlation data every day. One of the new terms used in this bombardment is the word "linked," as in "video game viewing linked to violence," "low self-esteem linked to depression," or "aluminum linked to Alzheimer's disease." In each of these cases, a review of the data will reveal that the connection was discovered by research finding some correlation between the events. Given the insidious nature of some correlational data, a review of the dangers of correlations would be prudent. In your discussion, be sure to focus on following concerns. First, re-emphasize that a correlation cannot be used to determine cause (no matter how strong the correlation). Second, note that you cannot convert a correlation into a percent of impact (i.e., a correlation of +.6 does not mean that the events occur together

60% of the time). This point is important as many newspaper and magazine articles make this error. In helping students understand why correlations cannot be used for establishing causation, be sure to discuss the directionality issues (i.e., a correlation indicates whether events vary together, but the assumed direction may be incorrect). For example, a researcher could find a high positive correlation between violence and video game playing. The assumption is that the video game playing is causing the violence. In reality, it is just as likely that violent people seek out video games as an acceptable way to express violence. Finally, be sure to discuss the “third-variable” problem (i.e., two highly correlated events may be caused by a third factor). For example, the correlation between smoking and cancer could be due to a genetic problem that results in both the generation of cancer cells and a craving for nicotine (that results in smoking cigarettes). Check out the correlation calculation web site for more details and a chance to calculate a correlation using your own data.

Correlation statistics web site:

http://fonsg3.let.uva.nl/Service/Statistics/Correlation_coefficient.html

Lecture Extension 1.6: Extraneous variables and the experiment

The text does a nice job of describing two of the three key variables that are considered in conducting an experiment. The independent variable (IV) is best thought of as the factor the experimenter believes will cause some response to occur. The experimenter then manipulates this variable by making sure that there are at least two levels of the factor that can be compared. For example, an experimenter might believe that a pill can reduce hyperactive behavior in children. They would then design a study in which different levels of the pill would be presented. The simplest version would be a study in which some children are given the pill and others are not. The researcher could be concerned that just getting any pill might lead to a change in behavior. Thus, they might want to add a third level in which participants are given a pill lacking the chemical that is thought to impact hyperactivity. This “inactive” pill is sometimes called a placebo. In some experiments, the research may manipulate more than one IV. In that case, the experimenter might believe that the time of day at which the pill is ingested makes a difference. They could then add a second independent variable (time of day) with two levels (8:00 a.m. versus 8:00 p.m.). Most experiments use only one or IVs. In the case of IVs, more is not always better!

The dependent variable (DV) in an experiment is best thought of as the response/behavior the researcher believes will be affected by the IV and thus will need to measure. In our example, the pill is hypothesized to impact hyperactivity, thus the DV will be some measurable behavior assumed to be related to hyperactivity (e.g., leaving one’s seat during a class session). As with the IV, researchers may include more than one DV in their study. In our case, the experimenters could also measure hyperactivity by assessing the number of times a child fidgets in their chair.

While IVs and DVs are critical, there is a third variable type that is essential to understand. These variables are called extraneous or confounding variables. They represent IVs (possible causes) that were not controlled by the experimenter. In a highly controlled experiment, the researcher makes sure that the only differences between experimental groups are the levels of the IV they have manipulated. In this case, any differences between the groups could only be attributed to the IV. This is a powerful way of identifying cause. In reality, it is virtually impossible to ensure that the only difference between groups is the IV levels. Thus, it is always possible that some extraneous variable is the true causal factor. That is why good scientists do not use the word “prove” when discussing results from a study. The word “prove” means absolute (as in you are absolutely certain that it was the IV alone that caused the response). Rather, good scientists speak in terms of results supporting a hypothesis. It is critical for students to understand the limits of an experiment and the key role that extraneous variables play in science. If you think back to our pill and hyperactivity example, two possible extraneous variables that would need to be controlled include nutrition (i.e., What did the kids eat before the study?) and discipline (i.e., Did the parent treat the child different after the study began?). To assist students in understanding the three key variables in an experiment, you might consider having them complete Activity 1.7.

Lecture Extension 1.7: Ethics and research

It is important that students understand the strict ethical guidelines researchers must adhere to when conducting studies using human subjects. The text does a nice job of describing some of these guidelines, but a review of a few more key guidelines like those listed below is certainly of benefit. You may want to check out Sales and Folkman (2000) for more details. Also, this Lecture Extension can be used in conjunction with Activity 1.7.

1. All participants have the right to withdraw from a study (without penalty) at any point in the research process.
2. The right to privacy extends to the level that even though a parent has given permission for their child's participation, they are typically not allowed access to the specific responses of their child. Also, if access is allowed, the researcher must exercise caution in making evaluative statements or giving advice.
3. Regardless of the nature of the study, any study using children as participants is designed as at least a "minimal risk" study where greater care is taken to ensure that no harm comes to participants.
4. Deception is used only when absolutely necessary.
5. The rights of the child (even infants) always supersede the rights of the investigator.
6. Any deviation from the study plan approved by the IRB requires re-approval by the IRB.
7. If an experimental treatment is found to be of benefit, children in control groups (not receiving the treatment) shall be given access to the treatment.

Sales, B. D., and Folkman, S. (2000). *Ethics in research with human participants*. Washington, D. C.: American Psychological Association.

Classroom Activities

Activity 1.1: The complexity of cause

When considering the underlying cause of a behavior, many philosophers and scientists have taken the position that impact is either due to nature or nurture. It is important for students to understand that this dichotomous view (100% nature or 100% nurture) is too simplistic. In the past, many have suggested the existence of sex differences in math abilities. Some have said that the difference is genetic and have discussed the idea of a male math gene or some hormonal advantage. Others have said it is due to experiential differences in access to math classes. In reality, the math ability an individual possesses is likely due to the impact of many factors both biological and environmental. Fennema and Leder (1990), identify many factors that impact math performance. Their list is divided into "learner variables" that could have a biological or environmental basis and "environmental variables." Learner variables include spatial abilities (some math problems involve spatial ability), verbal ability (have to be able to read the math problem), self-confidence, perceived usefulness of math, motivation, and sex role congruency. Environmental variables include media (depicting males and mathematically superior), peer expectations, the law (restricting access to math classes because of sex), parent factors (including interest and encouragement of math), socioeconomic status (ability to purchase a calculator), teacher characteristics, textbooks, and math curriculum. In order to have students begin to comprehend the complexity of cause, you could have them generate their own list of the factors that could influence math ability. Their list would likely include some of the items identified above along with other alternatives. You could use this list to show the true complexity of cause. An alternative would be to pick a different behavior (e.g., shyness, aggression) and again list possible causes.

Fennema, E., and Leder, G. (1990). *Mathematics and Gender*. New York: Teachers College Press.

Activity 1.2: Matching theories, theorists, and concepts (Handout 1.1)

As is true of most introductory chapters, there is a lot of material to digest in Chapter 1. You might consider using Handout 1.1 as a way to ensure that students are beginning to make the connection between theorists, concepts, and theories. You could do this as a take-home project, as an in-class individual project, or as an in-class small group project. If doing it in class, set a time limit of 5 minutes to encourage students to stay on task!

SOLUTION

1. A, 2. C, 3. D, 4. E, 5. A, 6. F, 7. B, 8. B, 9. D, 10. F, 11. D, 12. E, 13. A, 14. E, 15. B, 16. C, 17. D, 18. F, 19. E, 20. B

Activity 1.3: Freud in everyday life

Marianne Miserandino developed a great activity designed to help students identify and understand the impact of Freud on modern American culture. For the project, students are asked to agree or disagree with 15 Freudian principle statements (e.g., sexual adjustment is easy for most people). Upon completion, students will typically realize how much their beliefs (and media portrayals) match Freud's ideas. I would suggest taking the project one step further and having students identify specific television and movie examples of the concepts. This activity could be done as a class participation project or as an individual take-home project.

Miserandino, M. (1994). Freudian principles in everyday life. *Teaching of Psychology*, 21(2), 93–95.

Activity 1.4: Differentiating reinforcement and punishment (Handout 1.2)

One way to help students differentiate the types of operant consequences identified by Skinner (see Lecture Extension 1.4) is through practice with real-life examples. Handout 1.2 could assist you in this endeavor.

SOLUTION

1. C, 2. A, 3. B, 4. D, 5. E, 6. B, 7. A, 8. C

Activity 1.5: Understanding the impact of the macrosystem and chronosystem

Bronfenbrenner's ecological model has become quite popular in the last decade. One unique aspect of the approach is the inclusion of potential influence on child development that occurs at the macrosystem (cultural/societal) and chronosystem (historical time in which you live). One way to help students appreciate these contributions would be to have them identify how they might differ if they had been born in a different century (e.g., the 1000s, 1800s, 2100s) or raised in a different country (e.g., China, Kenya, Chile, Russia).

Another idea would be to have them discuss how where and when they have been born and raised has impacted the way they think, act, and feel about issues. You might help them out by pointing out historical cohort (chronosystem) events like AIDS or the internet and societal differences (macrosystem) like political ideologies (e.g., democracy, communism).

Activity 1.6: Understanding correlations (Handout 1.3)

A classic method of assisting students in understanding the basic nature of correlations is to present them with two variables and have them predict the direction (positive to negative) and strength (close to 0 or close to 1) of the correlation (see Handout 1.3). You could do this as an in-class activity in which individuals or small groups each generate their prediction and then you discuss the predictions as a group. Note that in some cases, there may be some class debate about the predicted relationship. In these cases, the student arguments can give them insight as to their belief systems. To spice up the debate, you could

add controversial variables like “race and intelligence,” “sex/gender and athletic ability,” or “violent behavior and exposure to media violence.”

SOLUTION

1. (correct prediction negative and strong)
2. (correct prediction positive and strong)
3. (correct prediction positive and strong)
4. (correct prediction negative and moderate to strong)
5. (correct prediction weak to no correlation)
6. (correct prediction positive and strong)
7. (correct prediction positive and moderate to strong)
8. (correct prediction weak to no correlation)
9. (correct prediction positive and moderate to strong)
10. (correct prediction negative and moderate to strong)

Activity 1.7: Identifying elements of a developmental psychology experiment (*Handout 1.4*)

This activity will assist students in identifying the basic elements of an experiment. It can also provide them with practice at considering the ethics of a study.

The correct answers are:

Independent variable 1: level of pain (high, medium, and low)

Independent variable 2: time of testing (beginning of school, end of school)

Dependent variable: number of words correctly recalled

Extraneous variables (some examples): general intelligence, past experience with foreign words, fatigue, reading skills, pain sensitivity

Ethical concerns (some examples): privacy, informed consent, right to withdraw, physical and mental harm

Activity 1.8: Generational differences in advice on child development

Follow the lead of the text authors and have students read sections from the books found on Table 1.3. Then have them compare the type of advice that parents were given during the different generations in which the books were first published. You could expand the project and have students find magazine articles on child development from different decades (1900 through today) and have them report on the theoretical orientation and advice provided by the author(s).

Activity 1.9: Careers in child development

In order to expand students’ understanding of career opportunities in child psychology, ask them to identify and interview one person whose current job involves working with infants, children, or adolescents. Have the students gather information about the individual’s education, additional training, career perks (e.g., pay, schedule), career drawbacks (e.g., pay, schedule) and advice for someone interested in the career. For confidentiality reasons, students should be reminded to never discuss the actual name(s) of the people they interview. Also, remind students that professional behavior (e.g., being prepared, being courteous) is a must with any professional interview. For a similar “on-line” activity, see the internet activity discussed below.

Text Internet Activity for Students

Are you considering a career in childcare or education? If so, go to the Vocational Information Center at www.khake.com and click on “Childcare” to link to the Early Childcare and Education Career Guide. Pick several careers and follow the links to gather information on required skills and training, salary, licensure, and typical activities. What do you see as the advantages and disadvantages of these different careers?

List of MyDevelopmentLab Connections

LISTEN “Nature-Nurture Debate”

EXPLORE: “Key Theories in Developmental Psychology”

EXPLORE “The Id, Ego, and Superego”

– This is a matching game that can be used individually or as a group project. It self-corrects and is very interesting.

EXPLORE: “Freud’s Five Psychosexual Stages of Personality Development”

EXPLORE: “Psychosexual Stages”

EXPLORE “Erikson’s First Four Stages of Psychosocial Development”

EXPLORE “Classical Conditioning Matching Game”

– This game is a lot of fun and can be used as a small group activity.

EXPLORE: “Classical Conditioning of Little Albert”

EXPLORE: “The Three Stages of Classical Conditioning”

BIOGRAPHY “Profile of B.F. Skinner”

EXPLORE “Bandura’s Study of Observational Learning

EXPLORE “Human Development: No Man Is An Island”

EXPLORE: “The Saping Process”

EXPLORE: “Types of Reinforcement in Humans”

EXPLORE “Correlations Do Not Show Causation”

EXPLORE “Cross-sectional and Longitudinal Research”

– This provides hands-on learning for students.

EXPLORE: “Interactive Correlation”

Web Links

Web Link 1.1: <http://www.srkd.org/>

The home page of the Society for Research in Child Development is a nice place to start your journey in learning about child and adolescent development.

Web Link 1.2: http://www.age-of-the-sage.org/psychology/#nature_versus_nurture

This interesting site describes the nature-nurture position of several famous individuals. It also maps out the philosophical positions of several cultures.

Web Link 1.3: <http://www.psych.umn.edu/psylabs/mtfs/>

The Minnesota Twin Family Study web site provides information and results from the type of twin studies used by behavioral geneticists.

Web Link 1.4: <http://allpsych.com/personalitysynopsis/freud.html>

The “allpsych online” web section on psychoanalysis provides a great overview of Freud’s version of psychodynamic theory.

Web Link 1.5: <http://www.psy.pdx.edu/PsiCafe/KeyTheorists/Erikson.htm>

This site provides a good description of Erikson’s version of psychodynamic theory and information about Erikson.

Web Link 1.6: <http://chiron.valdosta.edu/whuitt/col/behsys/classcnd.html>

This site provides a super description of the basic premise of classical conditioning (complete with artwork depicting the process).

Web Link 1.7: <http://www.bf Skinner.org/Operant.asp>

The B.F. Skinner Foundation home page offers a concise description of the basics of operant conditioning. Additional links allow the visitor to learn more about the life and publications of Skinner.

Web Link 1.8: <http://www.psy.pdx.edu/PsiCafe/KeyTheorists/Bandura.htm>

The Bandura page on the Psi Café web site provides access to a biography of Bandura along with links to information on his theory and applications of his work.

Web Link 1.9: <http://www.piaget.org/index.html>

If you are interested in Jean Piaget, then your first stop should be the Jean Piaget Society web site. This well-designed site contains a wide array of information on Piaget and his theory.

Web Link 1.10: <http://www.marxists.org/archive/vygotsky/>

What better place to learn the essentials of Vygotsky than at the Marxist.org web site? This site is filled with detailed information about Vygotsky’s life and theory.

Web Link 1.11: <http://www.nobel.se/medicine/laureates/1973/lorenz-autobio.html>

Learn more about Lorenz by reading his detailed biography at the Nobel e-museum web site.

Web Link 1.12: <http://www.neuropsychologycentral.com/>

Cool graphics and great information are just two ways to describe the neuropsychology central web site.

Web Link 1.13: <http://www.hhmi.org/senses/e110.html>

This page offers great PET and fMRI images.

Web Link 1.14: www.psy.pdx.edu/PsiCafe/KeyTheorists/Bronfenbrenner.htm

If you are interested in Urie Bronfenbrenner, why not go to the source and check out his home page at Cornell University (College of Human Ecology).

Web Link 1.15: www.psychology.uiowa.edu/cd-conference

This page offers a nice description of the basics of dynamic systems theory.

Web Link 1.16: <http://www.webster.edu/~woolfm/methods/devresearchmethods.html>

This excellent site provides a superb overview of methods and issues in child development research.

Web Link 1.17: http://www.apa.org/ethics/code2002.html#principle_a

Check out this APA web page for a comprehensive look at ethical standards and psychology.

Web Link 1.18: <http://www.psywww.com/careers/>

To gather more information on careers in psychology, check out Margaret Llyod's super careers in psychology page.

Additional Suggested Readings

Crain, W. (2000). *Theories of development*. (4th ed). Upper Saddle River, NJ: Prentice Hall.

Merrens, M.R., and Brannigan, G.C. (1996). *The developmental psychologists: Research adventures across the life span*. New York: McGraw-Hill.

Miller, P.H. (2001). *Theories of developmental psychology* (4th ed.). New York: Worth Publishing.

Miller, S.A. (1997). *Developmental research methods* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall Publishing.

Nagy, T.F. (1999). *Ethics in plain English: An illustrative for psychologists*. American Psychological Association.

Pinker, S. (2002). *The blank slate: The modern denial of human nature*. New York: Viking (Penguin Putnum).

Stec, A.M., and Bernstein, D.A. (1999). *Psychology: Fields of application*. Boston: Houghton Mifflin company.

Thomas, R.M. (2000). *Comparing theories of child development* (5th ed.). Pacific Grove, CA: Brooks/Cole Publishing.

Test Bank Chapter 1 Exploring Child Development**Multiple-Choice Questions**

1) Which of the following is NOT considered a primary component of cognitive development?

- A) Processing information
- B) Storing and retrieving memories
- C) Coordinating muscle activity
- D) Communicating with language

Answer: C

Diff: 1

Page Ref: 3

Skill: Factual

2) Preschool teachers are interested in how 3- and 4-year-olds play and make friends with others. These teachers are interested in children's

- A) socioemotional development.
- B) cognitive development.
- C) information processing skills.
- D) ego development.

Answer: A

Diff: 2

Page Ref: 3

Skill: Applied

3) Which of the following is most likely due to a person's "nature"?

- A) Eye color
- B) Religious beliefs
- C) Language spoken
- D) TV viewing habits

Answer: A

Diff: 2

Page Ref: 4

Skill: Conceptual

4) "Nature" mainly refers to

- A) nutrition and medical care.
- B) the influence of parents and others.
- C) genetics and biology.
- D) cultural heritage and diversity.

Answer: C

Diff: 2

Page Ref: 4

Skill: Factual

5) Which of the following statements regarding the "nature vs. nurture" controversy is TRUE?

- A) Scientists have emphasized the importance of biology since the development of DNA testing in the late 20th century.
- B) The relative roles of biology and environment in human development have been debated for years.
- C) Psychological studies of identical and fraternal twins indicate overwhelming support for the "nurture" position.
- D) It is now easy for psychologists to determine that "nature" plays a larger role in development than "nurture" does.

Answer: B

Diff: 2

Page Ref: 4

Skill: Factual

CHAPTER 1

6) John Watson's argument that he could train a child to be any type of specialist he chose reflected his belief that the most important influence on a child's behavior is/are

- A) his or her innate intelligence.
- B) learning.
- C) nature.
- D) behavior genetics.

Answer: B

Diff: 2

Page Ref: 4

Skill: Conceptual

7) In the field of behavior genetics, researchers study

- A) only the impact of DNA and other genetic factors.
- B) how parents and other adults influence behavior.
- C) the relative roles of nature and nurture.
- D) how genes behave when combined with other genes.

Answer: C

Diff: 2

Page Ref: 4

Skill: Factual

8) The argument that development is influenced either by nature or by nurture

- A) is still a major point of contention and controversy within the field of child development in the 21st century.
- B) was cast aside as a major controversy as it became clear that neither side could completely explain human behavior.
- C) was clearly resolved in the 1950s by researchers who argued that humans are totally determined by their experiences.
- D) is of no theoretical or practical interest to individuals who study child development today.

Answer: B

Diff: 3

Page Ref: 4

Skill: Conceptual

9) The fact that IQ scores are more similar among identical twins than among fraternal twins

- A) suggests that siblings treated similarly will be similar in achievement.
- B) suggests that siblings of the same gender are more intellectually similar.
- C) shows the influence of nurture on children's intellectual development.
- D) shows the influence of nature on children's intellectual development.

Answer: D

Diff: 2

Page Ref: 4

Skill: Conceptual

10) Janae is shy, so not many children talk to her. Because of this, she then feels rejected by her peers. This scenario demonstrates

- A) cross-sectional information.
- B) neuropsychology.
- C) operant conditioning.
- D) a reciprocal relationship.

Answer: D

Diff: 5

Page Ref: 11

Skill: Applied

11) Which of the following statements regarding theories is TRUE?

- A) Theories summarize currently known facts.
- B) Theories seldom allow for predictions to be made.
- C) Theories can directly be proven to be either right or wrong.
- D) Theories remain stable despite scientific advances.

Answer: A

Diff: 3

Page Ref: 6

Skill: Conceptual

12) Which of the following statements regarding psychoanalytic theory is TRUE?

- A) Psychoanalytic theory made little attempt to understand the impact of the unconscious mind.
- B) Psychoanalytic theory profoundly shaped early ideas regarding child development.
- C) The most prominent psychoanalytic theory was developed by Skinner.
- D) The impact of genetics is a primary component of psychoanalytic theory.

Answer: B

Diff: 2

Page Ref: 10

Skill: Conceptual

13) To deal with some of his unconscious issues, Johann went to see Sigmund Freud. Which of these is NOT one of the techniques Freud would have used?

- A) Dream interpretation
- B) Classical conditioning
- C) Hypnosis
- D) Free association

Answer: B

Diff: 2

Page Ref: 7

Skill: Applied

14) Identify the correct historical order of emergence for the following theories.

- A) social learning, dynamic systems, psychoanalytic
- B) psychoanalytic, behavioral, neuropsychological
- C) behavioral, dynamic systems, neuropsychological
- D) psychoanalytic, social learning, dynamic systems

Answer: B

Diff: 2

Page Ref: 8

Skill: Factual

15) According to psychoanalytic theory, in order to have a healthy personality

- A) a person's id must be stronger than the ego and superego to insure survival.
- B) a person's superego must be stronger than the ego and id for moral development to occur.
- C) the id, ego, and superego must be eliminated during psychosexual development.
- D) the ego must balance the id and superego and be able to cope with external demands.

Answer: D

Diff: 2

Page Ref: 9

Skill: Factual

CHAPTER 1

16) The psychoanalytic personality part responsible for our sense of morality is/are the

- A) id.
- B) ego.
- C) superego.
- D) both the id and the ego.

Answer: C

Diff: 2

Page Ref: 9

Skill: Factual

17) Which of the following is the correct order of Freud's stages of psychosexual development?

- A) oral, anal, phallic, latency, genital
- B) latency, oral, anal, phallic, genital
- C) oral, anal, latency, phallic, genital
- D) anal, oral, phallic, latency, genital

Answer: A

Diff: 2

Page Ref: 9

Skill: Factual

18) According to the theory of psychosexual development, receiving too much or too little stimulation can cause

- A) a delay of gratification.
- B) a fixation.
- C) erogenous confusion.
- D) sexual exploration.

Answer: B

Diff: 2

Page Ref: 9

Skill: Factual

19) Learning to use the bathroom appropriately and waiting until morning to eat are examples of

- A) fixation.
- B) delay of gratification.
- C) unconscious sexual desires.
- D) superego development.

Answer: B

Diff: 2

Page Ref: 9

Skill: Applied

20) Freud claimed that the successful resolution of the phallic stage and the Oedipus complex involves

- A) curbing one's hunger.
- B) using the bathroom appropriately.
- C) copying the same sex parent.
- D) the sexual pursuit of one's peers.

Answer: C

Diff: 3

Page Ref: 10

Skill: Conceptual

21) Erikson theorized that the primary challenge facing newborns was

- A) dealing with oral needs.
- B) struggling with trust issues.
- C) developing a sense of patience.
- D) coping with unconscious sexual desires.

Answer: B

Diff: 2

Page Ref: 10

Skill: Factual

22) Early behaviorists were interested in

- A) making psychology more objective and scientific.
- B) ensuring that elements of the unconscious mind were more measurable.
- C) helping psychology align itself more with theories of evolution.
- D) understanding children's thought processes.

Answer: A

Diff: 2

Page Ref: 10

Skill: Conceptual

23) Which of the following stages of Erikson's theory does NOT occur during childhood or adolescence?

- A) initiative vs. guilt
- B) identity vs. role confusion
- C) generativity vs. stagnation
- D) autonomy vs. shame and doubt

Answer: C

Diff: 2

Page Ref: 11

Skill: Conceptual

24) In Pavlov's research with dogs, when salivation was elicited by the presentation of food, the food (meat powder) was

- A) an unconditioned stimulus.
- B) a type of positive reinforcement.
- C) a conditioned response.
- D) a neutral stimulus.

Answer: A

Diff: 2

Page Ref: 11

Skill: Factual

25) At first, Josh neither liked nor disliked the song "Hey There, Delilah." However, one day his girlfriend broke up with him while that song was playing. Now Josh gets sad each time he hears that song. "Hey There, Delilah" has now become

- A) a conditioned stimulus.
- B) an unconditioned stimulus.
- C) a conditioned response.
- D) an unconditioned response.

Answer: A

Diff: 3

Page Ref: 11

Skill: Applied

CHAPTER 1

26) Praise and hugs are typically examples of

- A) fixations.
- B) imprinting.
- C) ethology.
- D) reinforcement.

Answer: D

Diff: 1

Page Ref: 12

Skill: Conceptual

27) Mark is babysitting five-year-old Sarah who throws tantrums in order to get her way. If Mark gives in to Sarah's demands in order to make her tantrums stop, Sarah's negative behavior is most likely being

- A) classically conditioned.
- B) punished.
- C) reinforced.
- D) imprinted.

Answer: C

Diff: 2

Page Ref: 12

Skill: Applied

28) Raenna was grounded for two weeks because she arrived home after her curfew one night. Raenna now comes home before her curfew due to

- A) observational learning.
- B) social learning.
- C) classical conditioning.
- D) operant conditioning.

Answer: D

Diff: 2

Page Ref: 12

Skill: Applied

29) Ty notices that his parents praise his big sister, Kimberly, each time she makes her bed. If Ty decides to make his bed one morning, it will now be most likely due to

- A) imprinting.
- B) social learning.
- C) classical conditioning.
- D) operant conditioning.

Answer: B

Diff: 2

Page Ref: 12

Skill: Applied

30) Bandura's theory and research emphasized the fact that children

- A) can learn through punishment and reinforcement.
- B) can be classically conditioned to show fear.
- C) do not always need reinforcement or punishment to learn.
- D) do not naturally imitate the behaviors of other people.

Answer: C

Diff: 2

Page Ref: 12

Skill: Conceptual

31) Jean Piaget is typically credited with creating a theory of which type of development?

- A) Cognitive
- B) Ethological
- C) Psychoanalytic
- D) Behavioral

Answer: A

Diff: 2

Page Ref: 13

Skill: Factual

32) Ally believes that all vegetables are "gross." If she discovers that some vegetables actually taste good to her, Piaget would say that she will have to

- A) use operant conditioning.
- B) assimilate this information.
- C) accommodate this information.
- D) use formal operational thought.

Answer: C

Diff: 3

Page Ref: 13

Skill: Applied

33) Which of the following statements concerning Piaget's perspective on learning is TRUE?

- A) Learning is primarily unconscious and occurs through classical conditioning.
- B) Learning is a continual cycle of assimilation and accommodation.
- C) Learning occurs when the ego is strong enough to balance the id and superego.
- D) Learning occurs through the processes of modeling and imitation.

Answer: B

Diff: 2

Page Ref: 13

Skill: Factual

34) Which of the following is the proper order of Piaget's four stages of cognitive development?

- A) preoperational, sensorimotor, concrete operational, formal operational
- B) sensorimotor, preoperational, concrete operational, formal operational
- C) concrete operational, formal operational, sensorimotor, preoperational
- D) formal operational, concrete operational, sensorimotor, preoperational

Answer: B

Diff: 2

Page Ref: 13

Skill: Factual

35) "As children acquire the language of their culture, they also adopt the psychological tools imbedded in the language." This statement is most consistent with which of the following theories?

- A) Cognitive-developmental theory
- B) Social learning theory
- C) Sociocultural theory
- D) Ethological theory

Answer: C

Diff: 2

Page Ref: 14

Skill: Conceptual

CHAPTER 1

36) According to Vygotsky's theory, development occurs due to the person's

- A) internalization of cultural values.
- B) reorganization of mental schemes with age.
- C) imitation of adult authority figures.
- D) development of a basic sense of trust.

Answer: A

Diff: 2

Page Ref: 14

Skill: Factual

37) Which of the following is the best example of social speech?

- A) Dan wishing others would leave him alone
- B) Mario wanting more friends to interact with
- C) Chad rubbing Carla's shoulders after noticing she is upset
- D) Jeff asking Samantha to wash the dishes after dinner

Answer: D

Diff: 1

Page Ref: 14

Skill: Applied

38) George hears his daughter saying, "I go up the ladder," while she is climbing the ladder. This is an example of

- A) social speech.
- B) private speech.
- C) inner speech.
- D) assimilative speech.

Answer: B

Diff: 3

Page Ref: 14

Skill: Applied

39) Which of the following is NOT a stage theory of development?

- A) Information-processing theory
- B) Psychoanalytic theory
- C) Cognitive-development theory
- D) NONE of these theories offers stages.

Answer: A

Diff: 3

Page Ref: 14

Skill: Conceptual

40) The information-processing approach focuses on

- A) how unconscious forces influence information.
- B) how reinforcement influences learning.
- C) the assimilation and accommodation of information.
- D) how children perceive information.

Answer: D

Diff: 1

Page Ref: 14

Skill: Factual

41) Which of the following questions would be of LEAST interest to information-processing researchers?

- A) How do children solve math problems involving fractions?
- B) Will rewards help children to learn to spell?
- C) Why does memory strategy usage increase with age?
- D) How do children perceive information in their world?

Answer: B

Diff: 3

Page Ref: 14

Skill: Conceptual

42) The roots of ethology can be traced to

- A) Piaget's original research in cognitive development.
- B) Freud's stage theory of psychosexual development.
- C) Darwin's theory of evolution and the concept of natural selection.
- D) Pavlov's and Skinner's work on classical and operant conditioning.

Answer: C

Diff: 2

Page Ref: 14

Skill: Factual

43) Lorenz' concept of imprinting involves

- A) unconscious reasons for biological functions.
- B) attachment to the first guardian figure found after birth.
- C) the impact of classical and operant conditioning on learned behaviors.
- D) looking for ways in which individuals process new information.

Answer: B

Diff: 2

Page Ref: 14

Skill: Factual

44) An ethologist might argue that an infant's attachment or bonding behaviors

- A) are learned through observation.
- B) depend upon the cultural and historical context.
- C) are determined primarily due unconscious issues.
- D) have survival value for the individual and species.

Answer: D

Diff: 2

Page Ref: 15

Skill: Conceptual

45) The growing field in which psychologists, biologists, and other scientists study the structure and function of the brain and nervous system is known as

- A) sociobiology.
- B) neuropsychology.
- C) sociopsychology.
- D) behavior genetics.

Answer: B

Diff: 2

Page Ref: 15

Skill: Factual

CHAPTER 1

46) Which of the following theoretical perspectives focuses the LEAST on environmental or social explanations of child development?

- A) Neuropsychology
- B) Behaviorism
- C) Ecological systems theory
- D) Cognitive-developmental theory

Answer: A

Diff: 2

Page Ref: 15

Skill: Conceptual

47) CT, PET, and fMRI are acronyms for

- A) different types of information-processing strategies.
- B) technologies used to study the brain and nervous system.
- C) genetic codes found to be important to cognitive development.
- D) system levels within Bronfenbrenner's theory of development.

Answer: B

Diff: 1

Page Ref: 15

Skill: Factual

48) Dr. Worthing injects radioactive markers into Tina's bloodstream to see what brain areas are most active while she plays the piano. Dr. Worthing is using

- A) computerized tomography.
- B) positron emission tomography.
- C) functional magnetic resonance imaging.
- D) ultrasound.

Answer: B

Diff: 1

Page Ref: 15

Skill: Applied

49) What was the name of the theory created by Urie Bronfenbrenner that attempted to explain how different social layers impact the child's development?

- A) Information-processing theory
- B) Ecological systems theory
- C) Neuropsychology
- D) Cognitive-developmental theory

Answer: B

Diff: 2

Page Ref: 16

Skill: Factual

50) Which of the following theoretical perspectives focuses the LEAST on biological explanations of child development?

- A) Ethological theory
- B) Behavior genetics
- C) Neuropsychology
- D) Ecological systems

Answer: D

Diff: 2

Page Ref: 16

Skill: Conceptual

- 51) Grandparents, aunts, uncles, cousins, and friends of the family are all part of Bronfenbrenner's
- A) microsystem.
 - B) mesosystem.
 - C) macrosystem.
 - D) exosystem.

Answer: D

Diff: 2

Page Ref: 17

Skill: Factual

- 52) Dr. Schaab is a cross-cultural psychologist who conducts research on differences between collectivistic and individualistic societies. Bronfenbrenner would say that Dr. Schaab is focusing on the

- A) microsystem.
- B) mesosystem.
- C) macrosystem.
- D) exosystem.

Answer: C

Diff: 2

Page Ref: 17

Skill: Applied

- 53) Which of the following is an example of Bronfenbrenner's chronosystem?

- A) The neighborhood children
- B) The father's workplace environment
- C) The interaction between siblings
- D) The family moving to a new town

Answer: D

Diff: 2

Page Ref: 17

Skill: Applied

- 54) The new dynamic systems theories focus on

- A) the impact of biology and the environment.
- B) how a variety of factors change over time.
- C) how genetics and DNA influence the individual.
- D) looking for the best ways to impact a child.

Answer: B

Diff: 3

Page Ref: 17

Skill: Factual

- 55) Generally speaking, many theories

- A) address specific aspects of development.
- B) are remarkably similar to one another.
- C) can be easily compared until one is proven "right."
- D) do not allow for specific predictions to be made.

Answer: A

Diff: 2

Page Ref: 18

Skill: Conceptual

CHAPTER 1

56) Dr. Lamping wants to know how often children behave aggressively. So, he goes to a playground and records what he sees. Dr. Lamping used the technique known as

- A) structured observation.
- B) naturalistic observation.
- C) random observation.
- D) cross-sectional observation.

Answer: B

Diff: 2

Page Ref: 20

Skill: Applied

57) One advantage of naturalistic observation is that it

- A) allows the researcher to determine why behavior occurs.
- B) lets the researcher carefully control the environment.
- C) provides information about real-life behaviors.
- D) helps researchers determine the thinking behind the child's behavior.

Answer: C

Diff: 2

Page Ref: 20

Skill: Conceptual

58) Sometimes a researcher creates a standard situation or environment that allows each child the same opportunity to engage in a specific behavior of interest. This type of research design is called

- A) naturalistic observation.
- B) structured observation.
- C) path analysis.
- D) cross-sectional observation.

Answer: B

Diff: 2

Page Ref: 20

Skill: Factual

59) To reduce observer bias, the person collecting information should be

- A) knowledgeable about the study's purpose.
- B) unaware of the hypothesis of the study.
- C) about the same age as the individuals being studied.
- D) never seen by the participants who are being observed.

Answer: B

Diff: 2

Page Ref: 20

Skill: Conceptual

60) Which of the following research techniques would be most useful to a researcher investigating what 5th graders like most about their best friends?

- A) Self-report
- B) Naturalistic observation
- C) Structured observation
- D) Case study

Answer: A

Diff: 2

Page Ref: 20

Skill: Conceptual

61) Dr. Kramer is asking children how often they eat pizza. Dr. Kramer's research is an example of

- A) self-reports.
- B) naturalistic observation.
- C) an experiment.
- D) a case study.

Answer: A

Diff: 2

Page Ref: 20

Skill: Applied

62) Dr. Nicklaus has spent sixteen months getting to know ten-year-old Eldrick, a gifted golfer. He has watched Eldrick play, talked to his parents, and obtained physiological measures. Dr. Nicklaus has been conducting what type of research?

- A) Self-report
- B) Case study
- C) Structured observation
- D) Naturalistic observation

Answer: B

Diff: 2

Page Ref: 20

Skill: Applied

63) Which of the following research techniques would be most useful to a researcher investigating the backgrounds of children born with rare neurological conditions?

- A) Self-report
- B) Naturalistic observation
- C) Experimentation
- D) Case study

Answer: D

Diff: 2

Page Ref: 20

Skill: Conceptual

64) Which of the following statements regarding correlation coefficients is FALSE?

- A) Correlation coefficients measure both the strength and direction of an association.
- B) Correlation coefficients can range from -1.0 to +1.0.
- C) Positive correlation coefficients indicate better outcomes.
- D) Correlation coefficients are symbolized using the letter "r."

Answer: C

Diff: 2

Page Ref: 21

Skill: Factual

65) Dr. Rice found that the correlation between children's amount of sleep and their amount of daytime energy was +.40. This correlation indicates that

- A) the more sleep a child gets, the more energy he or she has.
- B) sleep and energy are not related.
- C) having more energy allows children to get more sleep.
- D) the more sleep a child gets, the less energy the child has.

Answer: A

Diff: 2

Page Ref: 21

Skill: Applied

CHAPTER 1

66) Which of the following correlations would be most likely to reflect the relationship between a child's age and mathematical skills?

- A) 0.0
- B) -.30
- C) -.85
- D) +.75

Answer: D

Diff: 2

Page Ref: 21

Skill: Applied

67) Negative correlations indicate

- A) negative outcomes.
- B) inconclusive results.
- C) low scores of one variable are associated with low scores of another variable.
- D) high scores of one variable are associated with low scores of another variable.

Answer: D

Diff: 2

Page Ref: 21

Skill: Factual

68) A researcher is interested in learning more about the relations among children's attitudes toward their teachers, their helping behaviors, the quality of their friendships, and their ethnicity and gender. Which of the following research methods would likely be most effective?

- A) experimentation
- B) path analysis
- C) naturalistic observation
- D) case study

Answer: B

Diff: 3

Page Ref: 22

Skill: Applied

69) To determine cause and effect relationships, researchers must use

- A) path analyses.
- B) case studies.
- C) correlational methods.
- D) the experimental method.

Answer: D

Diff: 2

Page Ref: 23

Skill: Factual

70) Ninety preschool children are randomly divided into three groups. Every day for two weeks, one group watches 30 minutes of "Sesame Street," a second group watches 30 minutes of "Road Runner" cartoons, and a third group watches 30 minutes of "Scooby Doo" cartoons. At the end of two weeks, all three groups are given a test of creativity. This research design would best be classified as

- A) correlational.
- B) experimental.
- C) longitudinal.
- D) naturalistic observation.

Answer: B

Diff: 2

Page Ref: 23

Skill: Applied

71) An experimental design would be most useful in answering which of the following questions?

- A) Does viewing violence impact eating choices?
- B) Does birth order impact education?
- C) Does height affect basketball ability?
- D) Do shy newborns become easy-going adults?

Answer: A

Diff: 2

Page Ref: 23

Skill: Conceptual

72) The variable that a researcher intentionally changes to determine how it might affect another variable is called a(n)

- A) non-random variable.
- B) dependent variable.
- C) independent variable.
- D) longitudinal variable.

Answer: C

Diff: 2

Page Ref: 23

Skill: Factual

73) The dependent variable

- A) will be positively correlated with the independent variable.
- B) is always negatively correlated with the independent variable.
- C) is predicted to be influenced by manipulation of the independent variable.
- D) needs to be intentionally held constant throughout the experiment.

Answer: C

Diff: 2

Page Ref: 23

Skill: Factual

74) When an experiment is designed and conducted properly, cause-and-effect can be determined because

- A) the independent variable fluctuates randomly, while the dependent variable is held constant.
- B) the only systematic difference between groups is due to manipulation of the independent variable.
- C) random assignment to groups insures that participants will systematically be different.
- D) participants in all conditions are treated exactly alike except for manipulation of the dependent variable.

Answer: B

Diff: 3

Page Ref: 23

Skill: Factual

75) Dr. Agassi wants to know whether exposure to music will impact reading skills. So, she has some students listen to rock music, while others listen to jazz or classical music. Then, she measures reading ability. The independent variable in this experiment is the

- A) type of music each student heard.
- B) children's reading ability.
- C) age and gender of the children.
- D) musical preference of each child.

Answer: A

Diff: 3

Page Ref: 23

Skill: Applied

CHAPTER 1

76) To determine the effects of caffeine on alertness, Dr. Clinton has 50 children consume caffeine, while 50 others do not receive caffeine. In order for Dr. Clinton to be able to determine cause-and-effect, she must insure that

- A) all of her participants currently consume caffeine.
- B) her participants are randomly assigned to view one of the two groups.
- C) her participants have about equal amounts of alertness.
- D) her participants do not have any choice in whether to participate in the experiment.

Answer: B

Diff: 2

Page Ref: 24

Skill: Applied

77) Random assignment to conditions ensures that the

- A) independent variable will have an effect on the dependent variable.
- B) local people will all have an equal chance of being a part of the study.
- C) participants will not know the true purpose of the study until after the research is completed.
- D) groups will not differ in any systematic way at the beginning of the study.

Answer: D

Diff: 1

Page Ref: 24

Skill: Factual

78) Researchers sometimes use animals to study questions related to child development because

- A) children younger than six years of age cannot participate in psychological research.
- B) it would be unethical to manipulate certain variables of interest in humans.
- C) there are no ethical guidelines for conducting research with animals.
- D) it is too difficult, time-consuming, and expensive to conduct correlational research.

Answer: B

Diff: 2

Page Ref: 24

Skill: Conceptual

79) Dr. McGaw was interested in whether children's recall of familiar or unfamiliar words improved with age, so she tested 4-year-olds, 6-year-olds, and 8-year-olds at the same point in time. This is an example of a

- A) hybrid design.
- B) case study design.
- C) cross-sectional design.
- D) longitudinal design.

Answer: C

Diff: 2

Page Ref: 25

Skill: Applied

80) The two research methods scientists use to measure whether and how children change over time are

- A) correlational and experimental research.
- B) correlational and observational research.
- C) cross-sectional and longitudinal research.
- D) cross-sectional and experimental research.

Answer: C

Diff: 1

Page Ref: 25

Skill: Factual

81) A researcher choosing to use a cross-sectional design might have which of the following samples?

- A) A group of 6-year-olds and their fathers interviewed once
- B) Three groups of 10-year-olds measured in different years
- C) A group of 6-year-olds measured again at ages 10 and 18
- D) One group of 6-year-olds, one of 10-year-olds, and one of 18-year-olds

Answer: D

Diff: 2

Page Ref: 25

Skill: Conceptual

82) A researcher choosing to use a longitudinal design might have which of the following samples?

- A) A group of 4-year-olds and their preschool teachers interviewed once
- B) Three groups of 12-year-olds measured in different years
- C) A group of 4-year-olds measured again at ages 8 and 12
- D) One group of 4-year-olds, one of 8-year-olds, and one of 12-year-olds

Answer: C

Diff: 2

Page Ref: 25

Skill: Applied

83) Eisenberg et al. (1999) studied a single group of 32 children, taking measurements of their helping behaviors approximately every two years from the time the children were four years old until they were young adults. This study used a(n)

- A) hybrid design.
- B) experimental design.
- C) cross-sectional design.
- D) longitudinal design.

Answer: D

Diff: 2

Page Ref: 25

Skill: Applied

84) Longitudinal research always involves

- A) observing the same group of participants over time.
- B) asking people to respond to a variety of questions.
- C) observing participants of different ages over a short amount of time.
- D) establishing cause-and-effect directly by using random assignment.

Answer: A

Diff: 2

Page Ref: 25

Skill: Factual

85) A primary advantage of the cross-sectional research design is that it can be used to

- A) observe change and stability over time within the same participants.
- B) complete a study in a relatively short amount of time.
- C) create groups of participants who have different ages but are similar in other ways.
- D) establish cause-and-effect through random assignment.

Answer: B

Diff: 2

Page Ref: 26

Skill: Factual

CHAPTER 1

86) Today's 20-year-olds often have better computer skills than today's 80-year-olds. This may be because computer skills worsen with age, but it is more likely due to

- A) differential dropout.
- B) hybrid designs.
- C) cohort effects.
- D) a lack of random assignment.

Answer: C

Diff: 2

Page Ref: 26

Skill: Conceptual

87) Hybrid designs combine the advantages of

- A) cross-sectional and correlational research methods.
- B) cross-sectional and longitudinal research methods.
- C) correlational and longitudinal research methods.
- D) correlational and experimental research methods.

Answer: B

Diff: 2

Page Ref: 26

Skill: Factual

88) A researcher choosing to use a cross-lag or sequential design might have which of the following samples?

- A) A group of 4-year-olds measured twice a year for twenty years
- B) Groups of 4-, 8- and 12-year-olds measured every five years for twenty years
- C) A group of 4-year-olds and a group of 8-year-olds measured a single time
- D) Groups of 4-year-olds and 6-year-olds measured with and without their mothers present

Answer: B

Diff: 2

Page Ref: 27

Skill: Conceptual

89) Dr. Young is studying children's memory ability. After collecting the data, Dr. Young lists each student's name and score on his Web site. By doing this, Dr. Young has violated which ethical standard?

- A) Confidentiality
- B) Informed consent
- C) Risk versus benefit
- D) Correction of negative consequences

Answer: A

Diff: 1

Page Ref: 27

Skill: Applied

90) The main purpose of a university's Institutional Review Board (IRB) is to determine whether researchers

- A) are using the appropriate scientific method.
- B) are adhering to ethical standards.
- C) have appropriate credentials for conducting studies.
- D) are testing their hypotheses efficiently.

Answer: B

Diff: 1

Page Ref: 27

Skill: Factual

Short Answer Questions

1) In regard to development, what do nature and nurture refer to?

Answer: Nature refers to the impact of biological forces that govern development, whereas nurture refers to environmental conditions.

Diff: 2

Page Ref: 4

Skill: Conceptual

2) Describe the Oedipus complex.

Answer: During the phallic stage (ages 3 to 7), Freud believed that children have unconscious sexual desires for their opposite-sex parent. When realizing they cannot have that parent, children ultimately identify with (begin to mimic) their same-sex parent.

Diff: 2

Page Ref: 9

Skill: Conceptual

3) In the first stage of Erikson's psychosocial theory, what is believed to occur?

Answer: Infants struggle with trust (versus mistrust) issues as a result of interactions with caretakers, learning whether the world is dependable, and whether people are basically trustworthy.

Diff: 2

Page Ref: 10

Skill: Conceptual

4) In operant conditioning, what is the difference between reinforcement and punishment?

Answer: Reinforcement increases the likelihood that a behavior will be repeated, whereas punishment makes it less likely that an individual will repeat a behavior.

Diff: 2

Page Ref: 12

Skill: Conceptual

5) In cognitive developmental theory, what is the difference between assimilation and accommodation?

Answer: Assimilation involves bringing new information or objects into existing schemes. Accommodation involves adjusting a scheme so it better fits the new experience.

Diff: 3

Page Ref: 13

Skill: Conceptual

6) What are some of the major advantages and disadvantages of naturalistic observation?

Answer: Advantages: It allows researchers to gather information about real-life behaviors. Disadvantages: The researcher cannot control the situation. Therefore, the desired behavior might not occur.

Diff: 2

Page Ref: 20

Skill: Conceptual

7) Independent and dependent variables are both a part of experiments. What is the difference between them?

Answer: The independent variable is manipulated by the researcher, whereas the dependent variable is measured, as its outcome is dependent upon the manipulation of the independent variable.

Diff: 3

Page Ref: 23

Skill: Conceptual

CHAPTER 1

8) What were the main concerns that Carolyn and Bob Landers had regarding their son, Connor?

Answer: Health, love of learning (good education), finding real happiness, being true to himself, knowing that he is loved, and his personal safety (without taking away his sense of innocence).

Diff: 2

Page Ref: 30

Topic: A Personal Perspective

Skill: Factual

9) In the Social Policy Perspective box, there is a list of various facts about suicide, death by firearms, poverty, teen pregnancy, drop out rates, arrest rates, and so on. What are some of the concerns/facts about American children and adolescents mentioned in this section of your text?

Answer: Students should accurately identify at least four of the facts.

Diff: 2

Page Ref: 31

Topic: A Social Policy Perspective

Skill: Factual

10) What did child social worker, Pamela Talbot, list as the most important problems faced by children and families?

Answer: Drug and alcohol abuse, physical abuse, neglect, educational and environmental neglect, and sexual abuse.

Diff: 2

Page Ref: 32

Topic: A Professional Perspective

Skill: Factual

Fill-in-the-Blank Questions

1) _____ development refers to changes in how one perceives the world and processes information.

Answer: Cognitive

Diff: 2

Page Ref: 3

Skill: Factual

2) Nature refers to the _____ forces that govern development.

Answer: biological

Diff: 2

Page Ref: 4

Skill: Factual

3) _____ study the degree to which psychological characteristics are influenced by nature and nurture.

Answer: Behavior geneticists

Diff: 3

Page Ref: 4

Skill: Factual

4) A(n) _____ describes how facts are organized and relate to one another.

Answer: theory

Diff: 2

Page Ref: 6

Skill: Conceptual

5) To test specific inferences otherwise known as _____, researchers collect scientific data.

Answer: hypotheses

Diff: 2

Page Ref: 7

Skill: Conceptual

6) The two most prominent psychoanalytic theories were developed by Freud and _____.

Answer: Erikson

Diff: 2

Page Ref: 7

Skill: Factual

7) According to Freud, the three basic components of the mind are the _____.

Answer: id, ego, and superego

Diff: 1

Page Ref: 9

Skill: Factual

8) In developing behaviorism, John Watson adapted Ivan Pavlov's work on _____.

Answer: classical conditioning

Diff: 2

Page Ref: 11

Skill: Factual

9) _____ learning involves learning by observing and imitating the behaviors of others.

Answer: Social

Diff: 2

Page Ref: 12

Skill: Factual

10) The biological theory called _____ examines the adaptive significance or survival value of behaviors.

Answer: ethology

Diff: 3

Page Ref: 14

Skill: Factual

11) _____ theories use dynamic models from physics and mathematics to explore complex systems of human development and how they change over time.

Answer: Dynamic systems

Diff: 1

Page Ref: 17

Skill: Factual

12) _____ involve the detailed description of one child or a small number of children.

Answer: Case studies

Diff: 2

Page Ref: 20

Skill: Factual

13) _____ research methods measure the degree to which two or more variables are related or associated.

Answer: Correlational

Diff: 3

Page Ref: 21

Skill: Conceptual

14) If it is found that shorter people live longer than taller people, there is a _____ correlation between height and longevity.

Answer: negative

Diff: 2

Page Ref: 21

Skill: Applied

CHAPTER 1

15) _____ research designs are sometimes used to balance the advantages and disadvantages of longitudinal and cross-sectional research strategies.

Answer: Hybrid

Diff: 3

Page Ref: 26

Skill: Conceptual

Essay Questions

1) Consider again John Watson's famous quote: "Give me a dozen healthy infants, well-formed, and my own specified world to bring them up and I'll guarantee to take any one at random and train him to become any type of specialist I might select." Discuss how this quote is relevant to his work with 11-month-old Albert.

Answer: Students' responses should indicate their understanding that John Watson was a major early proponent of the importance of experience and learning (i.e., nurture) to children's development. Then, students should briefly describe Watson's classic study with 11-month-old Albert and indicate that Watson's research emphasized the importance of conditioning and environmental control to children's development.

Diff: 2

Page Ref: 12

Skill: Conceptual

2) Name and describe three of the technologies used in neuropsychology to study the brain.

Answer: Computerized tomography (CT) scans can give computer-enhanced three-dimensional X-ray images of the brain. With positron emission tomography (PET), clinicians inject radioactive markers into a person's bloodstream and then trace them through the brain as the person engages in certain cognitive tasks. Functional magnetic resonance imaging (fMRI) can detect changes in the rate of metabolism, or energy consumption, in smaller areas of the brain. With fMRI, researchers can precisely identify the specific parts of the brain that become more active as people process different types of information.

Diff: 3

Page Ref: 15

Skill: Factual

3) Dr. Rescotra wants to design a study to investigate how exposure to various sounds can impact toddlers. What are some of the ethical considerations Dr. Rescotra should keep in mind?

Answer: The answer will vary depending on how the study is designed, but the student should note some of the ethical considerations (such as weighing risks versus benefits, utilizing nonharmful procedures, informed consent, minimizing unforeseen consequences, protecting confidentiality, and being aware of the implications of their research) mentioned in the text.

Diff: 3

Page Ref: 27

Skill: Conceptual

MyDevelopmentLab Essays

1) What are the steps involved in getting the dolphins to jump high out of the water in shows at Sea World?

Answer: The trainers use shaping. First, dolphins get food when they touch a target on the water's surface. Then, the target is raised slightly out of the water. When the dolphin touches it, it receives food. Then, trainers raise it higher and higher until the dolphins must jump high out of the water to get a treat.

Diff: 2

Page Ref: MDL

Topic: Explore: Dolphins at Sea World

Skill: Conceptual

2) What is the difference between primary and secondary reinforcement?

Answer: Primary reinforcers (like food, water, sex, and pain reduction) are innately reinforcing and they typically fulfill a biological need. Secondary reinforcers (like money) do not fulfill any biological need directly. They must be associated with primary reinforcers.

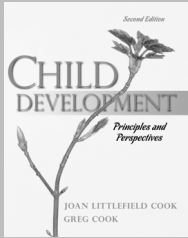
Diff: 2

Page Ref: MDL

Topic: Explore: Types of Reinforcement in Humans

Skill: Conceptual

Child Development



Principles and Perspectives

Joan Littlefield Cook
Greg Cook

Prepared by Kristy Huntley
Briarwood College

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Chapter One: Exploring Child Development

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CHILD DEVELOPMENT: DEFINING THE FIELD

- Researchers from many disciplines work together
- Aim to describe and understand changes
- Track development from childhood, to adolescence, through adulthood
- Implications for helping children

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What develops?

Development is multifaceted and encompasses changes within:

- Physical development
- Cognitive development
- Social development

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What drives development?

Nature, Nurture, and Reciprocal Relationships

- Two forces driving development- nature AND nurture
- Focus on the interaction between the two
- Neither is more important
- **Behavior genetics** explore the role of the nature and nurture (e.g. twin studies)

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What drives development?

NATURE

- Biological factors (e.g. genetics)
- Inherited traits
- Genetic program for development
- Example: Blossoming of a flower

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What drives development?

NURTURE

- Environmental factors
- Contributions to learning and development
- Includes prenatal environment, economic and sociocultural environment (e.g. poverty or malnutrition)

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What drives development?

- Philosophers and scientists debate the strength of nature and nurture factors
- John Locke and the *tabula rasa* concept
- Watson's application of the scientific method to support nurture
- Contemporary approach- interaction between the two—focusing on a reciprocal relationship

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THEORIES ABOUT CHILD DEVELOPMENT

What is a theory?

- Explanation of how facts fit together
- Aim to understand and predict behavior
- There are many reasons why they are useful
- No single theory captures the complexity of child development

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THEORIES ABOUT CHILD DEVELOPMENT

Why are theories useful?

- Summarize facts as currently known
- Allow prediction of future behavior and events
- Provide guidance
- Stimulate new research and discoveries
- Act as filters for identifying relevant information, observations, and relationships

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THEORIES ABOUT CHILD DEVELOPMENT: Psychoanalytic Theories

Psychoanalytic Theory

- Focuses on the structure of personality
- How the conscious and unconscious influence behavior and development
- Two major proponents: Freud and Erikson

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THEORIES ABOUT CHILD DEVELOPMENT: Psychoanalytic Theories

Sigmund Freud (1856-1939)

- Use of hypnosis, dream interpretation, free association and clinical interviews
- Exploration of unconscious desires and conflicts
- Components of personality: id, ego, superego
- Stages of psychosexual development
- Highly critiqued due to inadequate support

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THEORIES ABOUT CHILD DEVELOPMENT: Psychosocial Theory

Erik Erikson (1902-1994)

- Revised Freud's theory
- Psychosocial theory of development
 - 8 stages (e.g. trust v. mistrust)
 - Major crises throughout life
- Argued that development continues throughout life- not just until adolescence

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THEORIES ABOUT CHILD DEVELOPMENT: Behavioral Theories

John Watson (1878-1958)

- Major proponent of *Behaviorism*
- Focuses on overt, observable behaviors
- Adapted from Pavlov's classical conditioning
- "Little Albert" fear study
- Potential for control of behavior

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THEORIES ABOUT CHILD DEVELOPMENT: Behavioral Theories

B.F. Skinner (1904-1990)

- Reflexive response to stimuli
- Learning through consequences of actions
- Operant Conditioning
 - Reinforcement
 - Punishment
- Goal is to increase desirable behaviors and decrease undesirable ones

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THEORIES ABOUT CHILD DEVELOPMENT: Social Learning Theory

Albert Bandura (1925- present)

- Built on work of Pavlov and Skinner
- *Social learning theory*
- Observation and imitation of behaviors
- Reinforcement and punishment at not always needed to shape behavior
- Evolved to social cognitive view- children are thinking about behaviors they see

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THEORIES ABOUT CHILD DEVELOPMENT: Cognitive Theories

Jean Piaget (1896-1980)

- Children actively adjust their understandings as they learn about the world
 - Represented with mental schemas
 - Assimilation
 - Accommodation
- *Stage theory* of cognitive development

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THEORIES ABOUT CHILD DEVELOPMENT: Cognitive Theories

Lev Vygotsky (1896-1934)

- Sociocultural theory- thought structures are adopted from language and culture
- Concept of social v. private speech
- Further exploration of children's cognitive capabilities

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THEORIES ABOUT CHILD DEVELOPMENT: Cognitive Theories

Information Processing Approach

- Rooted in Piaget's theory
- Focus on how children:
 - Perceive information in the world
 - Store and retrieve from memory systems
 - Learn and use problem-solving strategies
- Critiques Piaget's stages of cognitive development

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THEORIES ABOUT CHILD DEVELOPMENT: Biological Theories

Ethology

- Adaptive significance and survival value of behaviors
- Rooted in Darwin's theory of evolution and concept of natural selection
- Study animals in their natural environment
- Lorenz's concept of *imprinting*

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THEORIES ABOUT CHILD DEVELOPMENT: Biological Theories

Neuropsychology

- Study of the structure and function of the brain and the nervous system
 - Use of CT and PET scans
 - Brain mapping with fMRIs
- Findings may challenge cognitive theories

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THEORIES ABOUT CHILD DEVELOPMENT: Contextual and Systems Theories

- Focus on the many systems that operate in and around the child
- We must understand the contexts of the family, society, and culture and how they operate

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THEORIES ABOUT CHILD DEVELOPMENT: Ecological Systems Theory

Urie Bronfenbrenner (1917-2005)

- Systems and interrelationships that surround a child affect all aspects of development
 - Microsystem (e.g. interaction with parents)
 - Mesosystem (e.g. neighborhood)
 - Exosystem (e.g. friendships)
 - Macrosystem (e.g. values)
 - Chronosystem (e.g. birth of sibling)

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THEORIES ABOUT CHILD DEVELOPMENT: Ecological Systems Theory

Bronfenbrenner's Ecological Systems Theory

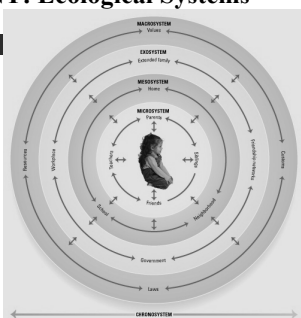


Figure 1.3

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THEORIES ABOUT CHILD DEVELOPMENT: Dynamic Systems Theory

- Focuses on how layers of systems interact and change over time
- This theory is based on models from mathematicians and physicists
- Recent notoriety promises to help researchers integrate ideas from other theories
- Example: A child experiencing divorce

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USING THE SCIENTIFIC METHOD: Research in Child Development

Descriptive Research Methods

- Describe behaviors (e.g. how often)
- Used to form predictions/hypotheses
- *Naturalistic observation* used to watch children's behaviors in their own environment (e.g. home, school)
- *Structured observation* is similar but the researcher a situation (e.g. laboratory setting)

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USING THE SCIENTIFIC METHOD: Research in Child Development

Descriptive Research Methods, cont.

- *Self-reports* such as surveys or interviews
 - Desirable answers
 - Unintentional prompting
- *Case studies* are intensive studies focusing on particular behaviors
 - Only one child or a few children
 - Employ a variety of measures

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**USING THE SCIENTIFIC METHOD:
Research in Child Development**

Correlational Research

- Measure the degree to which two or more variables are related or associated
- Positive and negative correlations
 - *Correlational coefficient* determines strength and direction of the relationship
- Correlation does not prove causation

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**USING THE SCIENTIFIC METHOD:
Research in Child Development**

Experimental Research

- Determining cause and effect
- Aims to have two or more groups differ systematically along one variable
- *Independent variable* is systemically manipulated by the experimenter
- *Dependent variable* is the outcome variable that is measured

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**USING THE SCIENTIFIC METHOD:
Research in Child Development**

Experimental Research, cont.

- *Random assignment* is used to prevent outside factors from differing systematically between the groups
- Ethical considerations are particularly important with children
- Depending on the research question, correlational design may be best

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**USING THE SCIENTIFIC METHOD:
Research in Child Development**

Methods for Assessing Development

- *Cross-sectional Methods* are used to compare children of different ages at one point in time
- *Longitudinal Methods* compare performance or observations across ages by taking repeated measurements from the same people across time

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**USING THE SCIENTIFIC METHOD:
Research in Child Development**

Methods for Assessing Development, cont.

- Advantages and disadvantages
 - Longitudinal is more direct testing of development
 - *Differential dropout*
 - Cross-sectional takes less time
 - *Cohort effects*
- *Solution? Hybrid designs* such as:
 - *Cross-lag*
 - *Sequential*

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**USING THE SCIENTIFIC METHOD:
Research in Child Development**

Ethical Considerations

- Must follow both *American Psychological Association* and *Society for Research in Child Development* guidelines
- Risks versus benefits
- Nonharmful procedures
- Informed Consent

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USING THE SCIENTIFIC METHOD: Research in Child Development

Ethical Considerations, cont.

- Unforeseen consequences
- Confidentiality
- Implications of research
- Must seek approval of *Institutional Review Board (IRB)*

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RESEARCH IN CHILD DEVELOPMENT: Practical Applications

- Family and Parenting
 - Improvement of knowledge and skills
- Social Policy
 - *Family Medical Leave Act*
 - Welfare reform
 - Work to stimulate change in policy
 - Evaluate the effectiveness of policies and programs

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RESEARCH IN CHILD DEVELOPMENT: Practical Applications

- Psychology and Counseling
 - Understanding of normal and abnormal pathways development can take
 - Tailor interventions and techniques
- Education
 - Teachers need to know development to maximize learning potential
 - Understand relationships with friends and peers
- Day care providers, nurses and anyone working with children

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Careers Related to Children

- Therapy, social service, education and day care
- Corporations and government agencies when children are affected
- Scientists and researchers who investigate child development
- Healthcare providers specializing in children

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