What is Development?

Slide 1) What is Development?

Slide 2) Development
- ▶ **Definition**
  - ◦ **Orderly changes beginning at conception and ending with death**
- ▶ **Developmental periods**
  - ◦ **Infancy**
  - ◦ **Early childhood**
  - ◦ **Middle and late childhood**
  - ◦ **Adolescence**

Development is a pattern of orderly changes beginning at conception and ending with death, including both growth (childhood) and decline (old age). The focus in educational psychology is on growth during early and middle childhood and adolescence.

Development period — time frame characterized by certain events

Interplay of biological, cognitive, and socioemotional processes

Each period has its own stresses, ups and downs, and concerns

Variations in capabilities of same age individuals occur in all periods of development

- Infancy—birth to 18/24 months
- Early childhood—preschool years; end of infancy to 5/6 years old
- Middle and late childhood—elementary school years; range from 6-11 years old
- Adolescence—10/12 to 18/22 years old; transition to early adulthood

Slide 3) Areas of Development
- ▶ **Areas**
  - ◦ **Physical**
  - ◦ **Intra-Personal**
  - ◦ **Inter-Personal   (or Social)**
  - ◦ **Cognitive**

Areas/Domains of Development

- Physical—bodily changes, including vision, hearing, height, weight, puberty
- Intra-Personal—identity and personality development
- Inter-Personal (or Social)—relationships with others, including peer groups, friendships, dating
- Cognitive—thinking and thought processes, intelligence, and language

Slide 4) Developmental Issues
- ▸ **Nature-nurture debate**
- ▸ **Stability and change**
- ▸ **Continuity and discontinuity**

Issues about the nature of development (how does it occur?)

- Nature vs. Nurture— heredity vs. environment
- Continuity vs. Stages— continuous and gradual vs. periods of abrupt change followed by periods of little change
- Stability vs. Change— characteristics maintained vs. characteristics vary over time (traits and characteristics/personality)

Slide 5) Continuous vs. Discontinuous Development
Example of continuous development: Chicken and egg lifecycle; example of discontinuous development: Caterpillar to butterfly

Slide 6) Nature vs. Nurture and Stability vs. Change
Ted Bundy as an Example of the "issues about the nature of development"
Bundy was born Theodore Robert Cowell in 1946 in Burlington, Vermont to an unmarried mother of 22. He gets his name from his stepfather. He was made to believe by his grandparents that he was their son and that his mother was actually his sister.

He was a good student, and like most young people devastated when his first love left him. One of the theories says that he started killing people as early as 14 years old. Many of his victims are said to have a physical resemblance to his first girlfriend.

Bundy didn't deal with the grief as most people do though. He spent years trying to get her back, and when he did get her back, he started killing innocent people and then dumped his girlfriend just as she dumped him.

Killings and Sentence
He was executed in 1989 after confessing to 40 murders.
Before his execution, he revealed that his addiction to pornography led him to do what he did. He said that there are many people out there who were addicted and nothing is being done about them.

One of Bundy's famous quotes – "We serial killers are your sons, we are your husbands, we are everywhere. And there will be more of your children dead tomorrow."

How does Ted Bundy elucidate the issues of nature vs. nurture, continuous vs. discontinuous change, and stability vs. change?

Slide 7) Review and Discuss
- ▸ **Describe the three developmental issues: nature versus nurture, stability versus change, and continuity versus discontinuity.**
- ▸ **Apply the three developmental issues to Ted Bundy.**

Slide 8) Principles of Development
- ▶ **Development occurs**
    - ◦ **gradually,**
    - ◦ **relatively orderly in a predictable pattern, and**
    - ◦ **at varying rates for individuals.**

Slide 9) Effects on Development
- ▶ **Context**
    - ◦ **Normative age-graded**
    - ◦ **Normative history-graded**
    - ◦ **Non-normative**

Normative age-graded influences: biological (puberty) and environmental (school) influences shared by a particular age group

Normative history-graded influences: shared by a specific generation due to historical influences (assassination of JFK, explosion of Challenger, 9-11-01, use of computers, cell phones, texting, e-mail)

Non-normative life events: unusual events that are unique to the individual and impact development (parental death, fire to family home, teenage pregnancy, homelessness)

Slide 10) Review and Discuss
- ▶ **Explore normative age-graded, normative history-graded, and non-normative developmental contexts that can affect learning in your future students.**

Slide 11) Theories of Development

Slide 12) What is a theory?
- ▶ **Theory**
- ▶ **Hypothesis**
- ▶ **Why are there so many theories?**

Theory — interrelated set of ideas that helps to explain data, make predictions

Hypotheses — assertions or predictions, often derived from theories that can be tested
Think of theories like tools. No one tool can work in every situation; neither can one theory explain everything.

Slide 13) Theories of Development
- ▶ **Psychoanalytic**
- ▶ **Cognitive**
- ▶ **Behavioral**
- ▶ **Social Cognitive**

- ▸ **Ethological**
- ▸ **Ecological**
- ▸ **Eclectic Orientation**

Slide 14) Psychoanalytic Theories
- ▸ **Major premises**
    - ◦ **Role of emotions**
    - ◦ **Role of the unconscious**
- ▸ **Major theorists**
    - ◦ **Freud**
    - ◦ **Erikson**

Development is primarily unconscious, emotion laden

Behavior is result of development, visible

Early childhood experiences stressed (ages 1-5)

Slide 15) Freud's Psychoanalytic Theory
- ▸ **Unconscious**
- ▸ **Personality development**
    - ◦ **Id**
    - ◦ **Ego**
    - ◦ **Superego**
- ▸ **Defense mechanisms**
- ▸ **Series of psychosexual development stages**

Id (pleasure principle), ego (reality), and superego (conscience) create personality; only the ego is mostly conscious, superego a little conscious, ego completely unconscious

Defense mechanisms and repression—used to deflect the ego's willfulness and protect the self

Anxiety and defense mechanisms

Five stages of psychosexual development
Psychosexual Stages

- Oral Stage: birth-18 months
- Anal Stage: 18 months-3 yrs
- Phallic Stage: 3-6 yrs
- Latency Stage: 6 yrs-puberty
- Genital Stage: puberty-adulthood

Freud believed all children pass through five psychosexual stages. At each stage the id's pleasure seeking energies focus on specific pleasure areas of the body (erogenous zones).

Can become fixated at a stage; behaviors continue throughout life
Integral in formation of personality which is completely set by age 5-6

Criticisms: overemphasized sexual instincts, unconscious is more important today

Slide 16) Erikson's Psychosocial Theory
- **Motivation is affiliation (not sex)**
- **Development is not confined to early childhood**
- **Development continues across the life span**

Primary motive for human behavior is social—desire affiliation and relationships with others

Developmental changes occur across the life span, not confined to infancy and childhood

Criticisms: stages have positive/negative poles; crisis in each stage needs resolution

Slide 17) Application to Education
- **Freudian Theory**
  - **Consider that unconscious drives or motives may affect classroom behavior**
  - **Defense mechanisms, such as rationalization and denial may be used by students to reduce their feelings of anxiety during a conflict or confrontation**
- **Erikson's Theory**
  - **Provide ample opportunities for students to be successful and praise their effort and work ethic**
  - **Provide positive role models for students**

Slide 18) Review and Discuss
- **What similarities are found between Freud's and Erikson's theories?**
- **Why is it beneficial to examine identity development across the life span?**
  - **How might developmental contexts affect identity development?**

Slide 19) Cognitive Theories
- **Major premise**
  - **Emphasize role of conscious thought**
- **Major theorists**
  - **Piaget**
  - **Vygotsky**
  - **Information Processing**

Thinking, reasoning, language

Slide 20) Piaget's Theory of Cognitive Development

- **Major premises:**

- ◦ **Maturation is basis for development.**

- ◦ **Children are active and curious.**

- ◦ **Children construct their own knowledge.**

- ◦ **Children want to maintain a mental homeostatic environment.**

- ▶ **Stage theory of cognitive development beginning at birth and continuing through adolescence.**

Jean Piaget believed infants begin at a cognitively "primitive" level and progress in distinct stages.

Maturation is the basis for all development; genetic

Children act on their environment and learn from those interactions; they are motivated to learn

Children construct their own knowledge based on their experiences with their environment and through social interactions.

Each of the four stages is related to a specific age range and children in those stages have distinct ways of thinking. The stages will be discussed in the Module on Cognitive Development

Slide 21) Vygotsky's Sociocultural Theory of Cognitive Development
- ▶ **Major premises:**
  - ◦ **Society and culture impact cognitive development**
  - ◦ **Knowledge is co-constructed between a learner and a more knowledgeable other**
  - ◦ **Language guides thinking and learning**
  - ◦ **Mental processes begin as social activity typically utilizing language and then internalized**

Vygotsky's sociocultural theory of cognitive development

Children actively construct knowledge based on interactions with adults and more knowledgeable/skilled peers

Learning begins externally from the learner and proceeds to an internal process

Play allows children to stretch themselves cognitively.

Slide 22) Information Processing Theory
- ▶ **Based on computer model to describe how the human brain works.**
- ▶ **Thinking occurs through the following processes:**
  - ◦ **Encoding**
  - ◦ **Storage**

◦ **Retrieval**

Slide 23) Application to Education
- ▶ **Piaget**
  - ◦ **Require student to interact with environment and formulate own ideas**
  - ◦ **Challenge student misconceptions**
- ▶ **Vygotsky**
  - ◦ **Use peer assisted learning**
  - ◦ **Aim instruction beyond students' current level of knowledge**
  - ◦ **Provide students with multiple perspectives from knowledgeable peers or adults**

Slide 24) Application to Education
- ▶ **Information Processing**
  - ◦ **Gain students attention before beginning instruction or providing direction**
  - ◦ **Activate students' prior knowledge**
  - ◦ **Make learning meaningful to students' lives and experiences**
  - ◦ **Focus on important overarching aspects of lessons**
  - ◦ **Use active learning**

Slide 25) Review and Discuss
- ▶ **Compare and contrast Piaget's and Vygotsky's theories of cognitive development.**
- ▶ **What implications do these theories have for your teaching your future students?**
- ▶ **How does the information processing theory help you to understand the learning process in which students engage during class?**

Slide 26) Behavioral Theories
- ▶ **Major premises:**
  - ◦ **Learning and development are described in observable terms**
  - ◦ **Environment and experiences influence behavior**
  - ◦ **Learning involves a behavior change**
  - ◦ **Development is observable behavior**
- ▶ **Major theorists:**
  - ◦ **Pavlov**
  - ◦ **Skinner**

Slide 27) Pavlov's Classical Conditioning Theory
- ▶ **Major premise:**
  - ◦ **Automatic behaviors beyond overt control**
  - ◦ **Associative learning**
    - · **Associate a neutral stimulus with a meaningful stimulus and evoke the same or similar responses as the meaningful stimulus**
  - ◦ **Famous study examining dogs**

Slide 28) Skinner's Operant Conditioning Theory
- ▶ **Major premise**
  - ◦ **Deliberate actions are controlled by consequences**
  - ◦ **Learning occurs based on consequences**
  - ◦ **Learning can be affected by modifying antecedents of and consequences to behaviors**
  - ◦ **Reinforced behaviors will be repeated**

Slide 29) Application to Education
- ▶ **Classical Conditioning**
  - ◦ **Use to understand students' anxiety or fears**
  - ◦ **Help students to encounter positive learning experiences**
- ▶ **Operant Conditioning**
  - ◦ **Use reinforcement to increase desired behaviors**
  - ◦ **Specify behavioral outcomes; ensure outcomes by altering antecedents and consequences**

Slide 30) Bandura's Social Cognitive Theory
- ▶ **Major premises:**
  - ◦ **Both internal and external factors influence learning and behavior**
  - ◦ **Reciprocal determinism: reciprocal interaction of personal, behavioral, and environmental factors effect learning and development**
  - ◦ **Learning can occur through observation and imitation of others**
  - ◦ **Cognitive processes mediate social learning**

Slide 31) Bandura's Model
Graphic of reciprocal determinism

Slide 32) Application to Education
- ▶ **Emphasize learning through observation and modeling**
- ▶ **Help students develop self-regulatory skills**
  - ◦ **Thinking about one's own behavior**
  - ◦ **Consider actions of and consequences to others have that have been observed**

Slide 33) Review and Discuss
- ▶ **Think about Pavlov's theory in relation to a fear or phobia that you have. How could you have been classically conditioned without your knowledge of it?**
- ▶ **Is it possible to operantly condition other's behaviors without their knowledge? Explain your response.**
- ▶ **How can Skinner's and Bandura's theories be applied to classroom situations?**

Slide 34) Ethological Theory
- • **Major premises**
- • **Behavior is influenced by biology**
- • **Behavior is connected to evolution**
- • **Behavior is dependent upon critical or sensitive periods**

- **Major theorists**
  - ◦ **Lorenz**
  - ◦ **Bowlby**

Behavior is strongly influenced by biology, tied to evolution.

Critical period—specific time frames during which the presence or absence of certain experiences has a long-lasting influence on individuals

Slide 35) Lorenz and Imprinting
- **Imprinting**
  - ◦ **Immediate innate learning**
  - ◦ **Involved attachment**
- **Critical period for attachment**

Imprinting is the natural and immediate attachment formed to the first moving thing that is seen after birth.

Lorenz separated a greylag goose from her eggs. He separated the eggs into two groups. To one group, he returned the mother goose to hatch the eggs; the other group was placed in an incubator. The geese hatched by the mother immediately followed her. The geese hatched in the incubator first saw Lorenz and deemed him their mother and followed him. Lorenz took all the goslings, placed them in box, stood next to the mother goose. When the box was lifted from the goslings, they immediately went to their mother.

Critical period (i.e., immediately after birth) is when imprinting must take place in order for attachment and learning to occur. If imprinting does not occur, then it will never occur.

Slide 36) Bowlby's Attachment Theory
- **Attachment to a caregiver has important consequences across the life span**
- **Positive or negative attachments**
- *Sensitive period* **for attachment**

Bowlby's attachment theory was based on Lorenz's ideas and applied to human babies and children with respect to attachment to a caregiver.

Attachment to the caregiver in the first year of life has important consequences throughout the lifespan.

Positive and secure attachment leads to healthy development; negative and insecure leads to less than optimal development.

Sensitive period is when attachment should occur (i.e., infancy) for optimal development, but can occur at later times.

Slide 37) Review and Discuss

- ▸ **Describe the difference between a sensitive period and a critical period in development.**
- ▸ **How might positive attachment to a male caregiver influence development differently than a positive attachment to a female caregiver?**
- ▸ **What are the implications of positive and negative attachment on classroom behavior?**

Slide 38) Ecological Theory
- ▸ **Major premise**
  - ◦ **Emphasis on environmental factors**
- ▸ **Major theorist**
  - ◦ **Bronfenbrenner**

Slide 39) Bronfenbrenner's Ecological Theory
- ▸ **Development is influenced by five interacting environmental systems**
  - ◦ **Each system influences development and behavior**
- ▸ **Updated theory to include the influence of biology but still dominated by environmental factors**
  - ◦ **Bioecological theory**

Ecological theories emphasize nature AND nurture, importance of sociocultural context, active child.

Bioecological model views the environment as including a number of aspects or systems, each which influence the development of a child.

Slide 40) Bronfenbrenner's Model

Microsystem—activities, roles, and relationships in which the child directly participates over time

Mesosystem—connections among various microsystems (when parents go to parent-teacher conferences and interact with teacher)

Exosystem—setting that children may not be directly a part of, but still influences child (community, school board)

Macrosystem—general beliefs, values, customs, laws of larger society
Chronosystem—time dimension

Slide 41) Application to Education

- ▸ **Ethological Theory**

- o **Understanding infant attachment can provide insights into students' emotional health, self-esteem, self-concept, and social interactions with peers and teachers**
- ‣ **Bronfenbrenner's Theory**
  - o **Foster connections between the school and home**
  - o **Include parents and students in educational decisions and learning**

Slide 42) Review and Discuss

What benefits to do you see in viewing development from Bronfenbrenner's systems theory compared with any other theory discussed thus far? Explain your response

Slide 43) Eclectic Theoretical Approach

- ‣ **Theories are tools.**
  - o **Multiple tools are used to fix a problem.**
  - o **Multiple theories are used to understand behavior.**
- ‣ **Development is a complex process which affects behavior and learning across the life span.**

Slide 44) The End