Chapter 1 Study Notes

The Study of Human Development

Chapter Overview

- Introduces the scientific study of human development.
- Explains major issues in development, developmental influences, theories, research methods, ethics and the application of research to social policy.
- Views development as a lifelong process, from conception through death.

1. Thinking About Development

- Human development is the scientific study of how people change and remain the same across the lifespan.
- Development is influenced by multiple interacting factors.
- No single factor can fully explain why people develop as they do.

Nature and Nurture

- Nature refers to genetic, hereditary and biological influences.
- Nurture refers to environmental influences and experiences.
- The nature-nurture issue examines the relative influence of heredity and environment.
- Development is shaped by the interaction between nature and nurture.
- Genetic characteristics may influence development, while environmental experiences can influence how characteristics are expressed.

Continuity and Discontinuity

- Continuity refers to development as a gradual and smooth progression, with some characteristics remaining relatively stable over time.
- Discontinuity refers to development involving major shifts or changes from one developmental state to another.
- Human development includes both continuity and discontinuity.

Universal and Context-Specific Development

- Universal development focuses on developmental processes that occur similarly across people and cultures.
- Context-specific development emphasises that development is influenced by environmental, cultural and social contexts.
- Human development reflects both universal and context-specific influences.

Basic Forces in Human Development

- Biological forces include genetic, hereditary and health-related influences.
- Psychological forces include perception, thinking, emotion, cognition and personality.
- Sociocultural forces include relationships, family, society, culture and social institutions.
- Life-cycle forces refer to how the impact of events may differ depending on age and developmental stage.
- Each person represents a unique combination of these interacting forces.

The Biopsychosocial Framework

- Focuses on the interaction between biological, psychological and sociocultural factors.
- Development should not usually be explained by considering only one influence.
- Behaviour and development are shaped by the interaction of multiple influences.

Neuroscience and Development

- Neuroscience focuses on the brain, nervous system and their relationship to behaviour.
- Advances in neuroscience help researchers understand how the brain develops and influences behaviour.
- Experiences can influence brain functioning and development.

2. Developmental Theories

- A theory is an organised set of ideas used to explain development.
- Theories help explain why people develop in particular ways and why behaviour changes.
- No single theory completely explains all aspects of human development.

Psychodynamic Theory

- Psychodynamic theories propose that development is influenced by how well people resolve conflicts at different ages.
- Sigmund Freud was an important early figure in psychodynamic theory.
- Erik Erikson developed a comprehensive lifespan theory of psychosocial development.

Erikson's Psychosocial Theory

- Personality development results from the interaction between an internal maturational plan and external societal demands.
- Erikson proposed eight psychosocial stages.
- Each stage involves a particular developmental challenge.
- Successfully dealing with one challenge helps prepare the individual for later challenges.

Erikson's Eight Stages

- 1. Basic trust vs mistrust: Birth to approximately one year; developing a sense that the world is safe and trustworthy.
- 2. Autonomy vs shame and doubt: Approximately one to three years; developing independence and confidence in one's abilities.
- 3. Initiative vs guilt: Approximately three to six years; developing the ability to try new things and take initiative.
- 4. Industry vs inferiority: Approximately six years to adolescence; learning skills and working effectively with others.
- 5. Identity vs identity confusion: Adolescence; developing a lasting and integrated sense of self.
- 6. Intimacy vs isolation: Young adulthood; developing the ability to form committed loving relationships.
- 7. Generativity vs stagnation: Middle adulthood; contributing to younger generations and society.
- 8. Integrity vs despair: Late adulthood; viewing one's life as meaningful and satisfactory.

The Epigenetic Principle

- Each psychosocial strength has a particular period during which it is especially important.
- The stages occur in a specific order.
- Later development builds on foundations established during earlier development.

Learning Theory

- Learning theories focus on how experience influences behaviour.
- Important concepts include rewards, punishment and learning through observing others.
- Major approaches include behaviourism and social learning theory.

Behaviourism and Operant Conditioning

- John Watson emphasised the importance of experience and learning.
- B. F. Skinner developed the concept of operant conditioning.
- Operant conditioning occurs when the consequences of behaviour influence whether the behaviour is repeated.
- Reinforcement increases the likelihood that a behaviour will occur again.
- Positive reinforcement involves adding something desirable.
- Negative reinforcement involves removing an unpleasant condition.
- Punishment decreases the likelihood that a behaviour will be repeated.

Social Learning Theory

- People can learn by watching others.
- This is known as imitation or observational learning.
- People can learn without directly experiencing every consequence themselves.
- Self-efficacy refers to a person's belief in their ability to successfully perform a task or behaviour.

Cognitive-Developmental Theory

- Focuses on changes in thinking, understanding, reasoning and problem-solving.
- Major approaches include Piaget's theory, information-processing approaches and Vygotsky's sociocultural perspective.

Piaget's Cognitive-Developmental Theory

- Children are active participants in their own development.
- Children actively construct knowledge and try to understand their world.
- Thinking becomes increasingly sophisticated as development progresses.

Information-Processing Theory

- Examines how people receive, process, store and use information.
- Development involves improvements in mental hardware and mental software.
- Mental hardware broadly refers to the brain's biological capacity for processing information.
- Mental software includes knowledge and strategies used to process information.

Vygotsky's Sociocultural Approach

- Emphasises the importance of social interaction and culture.
- Children learn through collaboration with more skilled individuals such as parents, teachers and peers.
- The zone of proximal development is the gap between what a child can do independently and what the child can accomplish with assistance.

Ecological and Systems Approach

- Human development is inseparable from the environmental contexts in which people develop.
- Different aspects of development are interconnected.
- Important influences include family, friends, teachers, peers, communities, media and social policies.

Bronfenbrenner's Ecological Theory

- Development occurs within complex and interacting environmental systems.
- Microsystem: Immediate environment, including parents, siblings, friends, school and day-care.
- Mesosystem: Connections between different microsystems.
- Exosystem: Settings not directly experienced by the person but which still influence development.
- Macrosystem: Broader culture, values, beliefs and heritage in which other systems are embedded.

Competence-Environmental Press Theory

- People function most effectively when there is a good match between their abilities and environmental demands.
- Competence refers to a person's abilities.
- Environmental press refers to the demands placed on a person by the environment.

Life-Span Perspective

- Development begins with conception and continues throughout life.
- No period of life should be understood entirely in isolation.
- To understand current development, earlier experiences, present circumstances and later possibilities should be considered.

Key Features of the Life-Span Perspective

- Multidirectionality: Development involves both growth and decline.
- Plasticity: Developmental capacities can change and many skills can be learned or improved.
- Historical context: Development is influenced by historical and cultural circumstances.
- Multiple causation: Development results from multiple interacting influences.

Selective Optimisation with Compensation

- Selection involves choosing goals and focusing on particular areas.
- Optimisation involves improving skills and resources to achieve selected goals.
- Compensation involves finding alternative ways to achieve goals when abilities decline or obstacles arise.

Life-Course Perspective

- Examines development within the historical period in which people live.
- Different generations experience different historical events, social conditions and cultural circumstances.

- Development reflects interactions between the individual, society and historical circumstances.

3. Doing Developmental Research

- Developmental theories need scientific research for support.
- Researchers use systematic methods to study behaviour and developmental change.

Measurement in Developmental Research

- Researchers must decide what they want to study and how it will be measured.
- Methods include systematic observation, self-reports and physiological measures.

Systematic Observation

- Involves carefully recording behaviour as it occurs.
- Naturalistic observation occurs in a natural environment.
- Structured observation occurs in a carefully organised setting.

Self-Reports and Physiological Measures

- Self-reports involve participants answering questions through interviews, surveys or questionnaires.
- Physiological measures examine relationships between the body and behaviour.

Reliability and Validity

- Reliability refers to the consistency of a measure.
- Validity refers to whether a measure actually measures what it is intended to measure.

Population and Sample

- A population is the larger group researchers want to understand.
- A sample is the group of people who actually participate in a study.
- Researchers aim for samples that represent the larger population.

Correlational Studies

- Examine relationships between variables as they naturally occur.
- A correlation coefficient can range from -1 to +1.
- A positive correlation indicates that variables tend to change in the same direction.
- A negative correlation indicates an inverse relationship.
- A correlation of zero indicates no relationship.

- Correlation does not prove causation.

Experimental Studies

- Experiments investigate possible cause-and-effect relationships.
- The independent variable is manipulated by the researcher.
- The dependent variable is the outcome or behaviour being measured.
- Random assignment gives participants an equal chance of being placed in different conditions.
- Experiments can provide evidence about cause and effect but may involve artificial conditions.

Qualitative Research

- Focuses on gaining an in-depth understanding of human behaviour and the factors influencing it.
- May involve intensive observation, interviews and recordings.
- Researchers identify patterns, themes and meanings.
- Qualitative research often uses smaller, more focused samples.
- It can complement quantitative research.

Longitudinal Studies

- Involve studying the same individuals repeatedly over time.
- Are useful for directly examining developmental change and behavioural stability.
- Limitations include cost, the time required, participant dropout and repeated-testing effects.

Cross-Sectional Studies

- Compare people of different ages at the same point in time.
- They are generally faster and less expensive than longitudinal studies.
- They cannot directly show how a particular individual changes over time.
- They may be affected by cohort effects.

Cohort Effects

- Occur when differences between age groups result from different historical or environmental experiences rather than age itself.
- Age-group differences cannot automatically be assumed to result from developmental change.

Sequential Designs

- Combine elements of longitudinal and cross-sectional designs.
- Can help distinguish age-related changes from cohort effects.
- They are often complex and expensive.

Meta-Analysis

- Examines findings across multiple studies.
- Helps researchers identify broader trends and estimate relationships between variables.

Research Ethics

- Researchers should minimise potential harm to participants.
- Informed consent allows participants to make an informed decision about participation.
- Researchers should avoid deception whenever possible.
- Confidentiality protects personal information.
- Anonymity means that a participant's identity is not connected to their responses.

Communicating Research and Social Policy

- Researchers collect and analyse data, interpret findings and communicate results.
- Research findings may be published in scientific journals, books and other publications.
- Research can influence social policy relating to areas such as education, health, families and social services.

Key Chapter Summary

- Human development is the scientific study of change and stability across the lifespan.
- Development is influenced by biological, psychological, sociocultural and life-cycle forces.
- Major developmental issues include nature versus nurture, continuity versus discontinuity, and universal versus context-specific development.
- Different theories explain different aspects of development.
- Research methods help scientists study development systematically.
- Ethical research protects participants.
- Research findings contribute to scientific knowledge and can inform social policy.

Key Terms to Know

- Human development; nature-nurture issue; continuity-discontinuity issue; universal and context-specific development; biological forces; psychological forces; sociocultural forces; life-cycle forces; biopsychosocial framework; neuroscience.

- Theory; psychodynamic theory; psychosocial theory; epigenetic principle; operant conditioning; reinforcement; punishment; imitation; observational learning; self-efficacy.
- Information-processing theory; zone of proximal development; ecological theory; microsystem; mesosystem; exosystem; macrosystem; competence; environmental press.
- Life-span perspective; plasticity; multidirectionality; historical context; multiple causation; selective optimisation with compensation; life-course perspective.
- Systematic observation; naturalistic observation; structured observation; self-report; reliability; validity; population; sample; correlation; experiment; independent variable; dependent variable; qualitative research.
- Longitudinal study; cross-sectional study; cohort effects; sequential design; meta-analysis; informed consent; confidentiality; anonymity.

Chapter 3 Study Notes

Tools for Exploring the World: Physical, Perceptual and Motor Development

Chapter Overview

- The first few years of life involve extremely rapid development.
- In less than two years, a child changes from a relatively helpless newborn into a mobile, increasingly independent and communicative toddler.
- Chapter 3 focuses on the newborn, physical development, development of the nervous system and brain, motor development, perceptual development, self-awareness and self-concept, and theory of mind.
- Physical, perceptual and motor abilities provide children with the tools needed to explore and understand their world.

3.1 The Newborn

The Newborn's Reflexes

- Reflexes are automatic responses to particular stimuli.
- They occur without conscious control.
- Newborns are born with several reflexes that help them survive, interact with their environment, protect themselves and develop later voluntary motor skills.

Importance of Reflexes

- Some reflexes help infants obtain food.
- Some protect infants from potentially harmful stimulation.
- Some form the foundation for later voluntary movements.
- Reflexes can indicate whether the nervous system is functioning properly.

Examples of Reflexes

- Reflexes related to feeding
    - The rooting reflex helps an infant locate a source of food.
    - Reflexes related to sucking allow infants to feed effectively.
- Reflexes related to later movement
    - The stepping reflex resembles movements involved in walking.
    - Practising stepping movements may influence the development of walking.
- Protective reflexes

    - The blink reflex causes the eyes to close in response to stimulation such as bright light or loud noise.
    - This helps protect the eyes.

- The Moro reflex

    - Occurs when an infant hears a loud noise or experiences the sensation that their head is falling.
    - The infant opens their arms and then brings them inward.

Reflexes and Nervous System Assessment

- Reflexes are useful indicators of the health of the newborn's nervous system.
- A reflex that is weak, missing or continues beyond the expected age may require further assessment.

Assessing the Newborn: The Apgar Score

- The Apgar score provides a quick assessment of a newborn's physical condition.
- It focuses on five areas needed to sustain life:
- Heart rate

    - Indicates how effectively the heart is functioning.

- Breathing

    - Indicates whether the infant is breathing effectively.

- Muscle tone

    - Assesses the infant's muscle activity.

- Reflex response

    - Assesses the presence and strength of reflexes.

- Skin tone

    - Assesses physical appearance and circulation.

- Each area receives a score of 0, 1 or 2.
- A score of 7 or higher generally indicates good physical condition.
- A score of 4–6 indicates that the newborn requires special attention and care.
- A score of 3 or lower indicates a potentially life-threatening situation requiring emergency medical care.
- The Road to Health card is used to record important information such as immunisations, growth and health monitoring.

The Newborn's Behavioural States

- Alert inactivity
    - The baby is calm, awake, quiet and attentive.
    - The eyes are open and the infant appears to inspect the environment.
- Waking activity
    - The infant's eyes are open but may appear unfocused.
    - Arms and legs move in bursts of uncoordinated movement.
- Crying
    - The baby cries vigorously.
    - Crying is often accompanied by agitated and uncoordinated movement.
- Sleeping
    - The infant's eyes remain closed.
    - The infant alternates between stillness with regular breathing and gentle movement with irregular breathing.

Crying

- Crying is one of the newborn's earliest forms of communication.
- Newborns may cry for approximately two to three hours per day.
- Crying can communicate needs such as hunger, tiredness, anger and pain.

Types of Crying

- Basic cry
    - Begins softly and gradually becomes more intense.
    - Often occurs when an infant is hungry or tired.
- Mad cry
    - A more intense form of the basic cry.
    - May indicate greater distress or anger.
- Pain cry
    - Begins with a sudden, long burst of crying.
    - May be followed by a long pause and gasping.

Parent Responses to Crying

- Common soothing methods include holding, rocking, walking, singing, patting and using a dummy.

- Swaddling involves wrapping the infant tightly in a blanket and provides warmth and tactile stimulation.
- Parents should consider what the infant may be communicating when responding to crying.

Sleeping

- Newborns sleep for approximately 16–18 hours per day.
- Sleep occurs in short periods throughout the day and night.
- Newborns alternate between different forms of sleep.
- Regular or non-REM sleep
    - The infant is relatively still and breathing is regular.
- Irregular or REM sleep
    - The infant may move gently and breathe irregularly.
- Sudden Infant Death Syndrome (SIDS) refers to the sudden and unexplained death of an apparently healthy infant.

Temperament

- Temperament refers to an individual's characteristic way of responding to the environment.
- It describes relatively consistent differences in emotional responses, activity and behavioural style.
- Children may differ in activity level, emotional responses, responsiveness, ability to soothe themselves, attention and persistence.
- Temperament is moderately stable: characteristic patterns show some consistency but are not completely unchanging.
- Temperament and parenting influence one another.
- Development results from interactions between characteristics of the child, caregiver responses and the broader environment.

3.2 Physical Development

Growth of the Body

- Infants grow rapidly during the first years of life.
- Growth includes increases in height, weight and body size.
- There is a wide range of normal individual variation in height and weight.
- Infants are not simply smaller versions of adults.
- Their heads and trunks are disproportionately large compared with older children and adults.
- The hips, legs and feet develop later, and the body gradually takes on more adult-like proportions.

- This pattern follows the cephalocaudal principle: development proceeds from the head downward through the body.

Nutrition

- Rapid growth requires energy.
- Food and drink provide energy necessary for physical growth, brain development and general development.
- Infant nutrition is influenced by access to food, family circumstances, sanitation and cultural and economic conditions.
- Bottle-feeding can create risks where clean water is unavailable or contaminated water is used.
- Contaminated water may contribute to diarrhoea, dehydration and serious illness.
- Over-diluted formula may contribute to malnutrition.
- The textbook discusses breastfeeding as an important primary source of nutrition.

Picky Eating

- By approximately two years, physical growth slows and children require less food than during earlier periods of rapid growth.
- Toddlers often become picky eaters and may reject foods they previously enjoyed.
- Preference for familiar foods may be adaptive when children are becoming more independent.

Strategies to Encourage Healthy Eating

- Reward children when they try healthy foods.
- Provide positive models of other children eating healthy foods.
- Teach children about nutrition.
- Offer new foods one at a time and in small amounts.
- Encourage rather than force children to eat.
- Continue offering rejected foods over time so that they become familiar.

Malnutrition

- Malnourished refers to being small for one's age because of inadequate nutrition.
- Malnutrition is particularly harmful during infancy because this is a period of rapid growth.
- It can negatively affect physical growth, brain development, attention and learning.

The Vicious Cycle of Malnutrition

- Inadequate nutrition can result in less energy.
- The child may become passive, inactive and less responsive.
- Parents may feel that stimulation has little effect and may provide fewer developmental experiences.
- The child may therefore experience both poor nutrition and reduced environmental stimulation.

Intervention

- Improving nutrition alone may not always be sufficient.
- Effective programmes may combine dietary supplements, parent education, parent training and developmental stimulation.
- This demonstrates the interaction between biological and sociocultural influences on development.

The Emerging Nervous System

- Many infant behaviours depend on the developing brain and nervous system.
- Examples include feeling hunger and pain, smiling, laughing, sitting and holding objects.

The Neuron

- A neuron is the basic cellular unit of the brain and nervous system.
- Neurons specialise in receiving and transmitting information.
- Cell body
    - Contains biological machinery needed to keep the neuron alive.
- Dendrites
    - Branch-like structures that receive information from other neurons.
- Axon
    - Transmits information to other neurons.
- Terminal buttons
    - Located at the end of the axon and release neurotransmitters.
- Neurotransmitters
    - Chemical messengers that allow neurons to communicate.

The Cerebral Cortex

- The cerebral cortex is the wrinkled outer surface of the brain.
- It regulates many functions associated with human behaviour.
- The brain has two major halves called the left and right hemispheres.
- The corpus callosum connects the two hemispheres and allows communication between them.
- The frontal cortex is associated with planning, decision-making and emotional responses.

Brain Specialisation

- Different areas of the brain become specialised for different functions.
- Some specialisation is already present during infancy.

- The left hemisphere shows specialisation for language processing.
- The right hemisphere becomes specialised for some forms of spatial processing.
- Different brain systems do not develop at exactly the same rate.
- Brain activity becomes more focused and responses become more specialised over time.

Development of the Nervous System

- Neural plate
    - An early structure involved in the development of the nervous system.
- Myelin
    - A substance that surrounds parts of neurons and assists efficient transmission of information.
- Synaptic pruning
    - The elimination of some neural connections as the brain develops.
- Experience-expectant growth
    - Brain development that depends on ordinary experiences that most children are expected to have.
- Experience-dependent growth
    - Brain development resulting from individual and unique experiences.
- The brain is shaped by both biological development and experience.

Electroencephalography (EEG)

- Electroencephalography measures electrical activity in the brain.
- It is used to study brain functioning and development.
- EEG research contributes to understanding brain specialisation and responses to different types of information.

Brain Plasticity

- The developing brain is relatively adaptable.
- Young children's brains can sometimes reorganise following damage.
- Other areas of the developing brain may contribute to functions that were previously affected.

3.3 Moving and Grasping: Early Motor Skills

Motor Skills

- Motor skills are coordinated movements of the muscles and limbs.
- Motor development allows children to move independently, explore their environment, reach objects and manipulate objects.
- Two major areas are locomotion and fine motor skills.

Locomotion

- Locomotion refers to moving from one place to another.
- During infancy, children gradually learn to control posture, sit, crawl, stand and walk.
- Walking allows children to move independently and frees the arms and hands for reaching, grasping, carrying and manipulating objects.

Learning to Walk

- Walking is a complex motor skill.
- It requires coordination of posture, balance, leg movements, muscle strength and perception of the environment.
- Children must continuously adjust movement to their bodies, the surface they are walking on and environmental conditions.

Dynamic Systems Theory

- Dynamic systems theory explains motor development as the coordination of different systems.
- Differentiation
    - Individual components of a skill develop separately.
- Integration
    - Individual components are combined into a coordinated movement.
- Walking requires several separate abilities to be integrated into one coordinated activity.

Perception and Locomotion

- Infants use perceptual information to decide whether a surface is safe and how they should move.
- Perception and motor development are therefore closely connected.

Cultural Influences on Motor Development

- Cultural practices can influence the timing of motor development.
- Different experiences may accelerate or delay certain motor skills.

- The exact age at which a healthy child achieves a motor milestone is not necessarily important for later development.
- Small differences in the age at which healthy children begin walking do not necessarily predict later outcomes.

Beyond Walking

- With experience, steps become longer and straighter and movement becomes more coordinated.
- Children increasingly coordinate arm and leg movements.
- Most two-year-olds do not yet run in the same way as older children or adults.
- By approximately five or six years, children can run more easily and change speed and direction more effectively.
- Locomotion allows children to obtain distant objects, carry objects and share objects with others.

Fine Motor Skills

- Fine motor skills involve skilled movements used to grasp, hold and manipulate objects.
- Newborns have relatively little voluntary control over their hands.
- During the first year, hand control improves dramatically.

Reaching

- At approximately four months, infants can successfully reach for objects.
- Early reaching may be slow, indirect and clumsy.
- With development and practice, reaching becomes smoother and more accurate.
- Infants become better able to coordinate vision and movement.

Grasping and Hand Coordination

- Infants gradually become better able to hold, manipulate and use objects purposefully.
- Fine motor development supports increasing independence, including feeding oneself.
- Hand coordination develops from using one hand at a time to using both hands independently and then together for a common purpose.

Handedness

- Handedness refers to a preference for using one hand more than the other.
- Most people are right-handed.
- Hand preference emerges after the first birthday and becomes more established during the preschool years.
- Handedness is influenced by heredity, cultural values and experiences.

3.4 Coming to Know the World: Perception

Perception

- Perception involves interpreting information obtained through the senses.
- Perception allows infants to make sense of their environment.
- Sensory development includes smell, taste, touch, pain, hearing, vision, depth perception and integration of information from different senses.

Smell

- Newborns are able to smell.
- Some infants can recognise their mother's odour.
- Smell helps infants recognise important aspects of their environment.

Taste

- Infants show preferences for certain tastes.
- They generally prefer sweet substances.
- They may respond negatively to bitter and sour tastes.

Touch and Pain

- Infants respond to touch.
- Tactile experiences are important from birth.
- Evidence suggests that infants experience pain.

Hearing

- Babies are able to hear and distinguish between different sounds.
- Hearing provides important information about people, objects and events.
- Hearing is especially important for later language development.

Vision

- Visual acuity
    - Visual acuity refers to the ability to see details clearly.
    - Newborn visual acuity is relatively poor.
    - Vision improves rapidly during infancy.
    - By approximately one year, visual ability is similar to that of adults with normal vision.
- Colour vision
    - Cones are specialised cells involved in colour vision.
    - Colour perception develops during the first months of life.
    - Development appears to be largely complete by approximately three to four months.
- Perception of faces

- Infants are attracted to faces.
- Experience influences face perception.
- Infants gradually form a face template based on faces they encounter frequently.

Depth Perception

- Depth perception allows us to determine whether objects are near or far.
- It allows us to perceive the world as having height, width and depth.

The Visual Cliff

- The visual cliff is a glass-covered platform used to study depth perception.
- One side appears shallow and the other appears deep.
- Crawling infants generally cross the shallow side and avoid the apparently deep side.
- This suggests that crawling infants can perceive depth.
- Younger infants may detect depth differences before developing the same emotional response to an apparent drop.

Cues for Depth Perception

- Kinetic cues
    - Use movement to estimate depth.
- Visual expansion
    - An object fills an increasingly larger part of the retina as it moves closer.
- Motion parallax
    - Nearby objects appear to move across the visual field faster than distant objects.
- Retinal disparity
    - Refers to differences between the images seen by the left and right eyes.
    - Greater differences generally indicate that an object is closer.
    - By approximately four to six months, infants can use retinal disparity to judge depth.
- Pictorial cues
    - Use the arrangement of objects to convey depth.
    - By approximately seven months, infants use several pictorial cues.
- Linear perspective
    - Parallel lines appear to meet at a distant point.
- Texture gradient

- Nearby objects appear coarse, clear and distinct.
- Distant objects appear finer and less distinct.

Integrating Sensory Information

- Infants can combine information from different senses.
- They can coordinate vision and touch as well as vision and hearing.
- For example, an infant may recognise visually an object previously explored through touch.

Intersensory Redundancy

- Intersensory redundancy occurs when information is presented through multiple senses at the same time.
- Infants are especially attentive to information available through more than one sense.
- For example, a person speaking provides information through sight, sound and movement.
- Information repeated across several senses may be especially useful for learning.

3.5 Becoming Self-Aware

Origins of Self-Concept

- Infants gradually begin to understand that they exist as separate individuals.
- Mirror recognition is one of the earliest signs of self-recognition and self-awareness.

Mirror Recognition

- At approximately 15 months, infants begin to recognise themselves in a mirror.
- By approximately two years, many children are clearly self-aware.
- They may prefer looking at pictures of themselves.
- They begin referring to themselves by their own name and personal pronouns such as 'I' and 'me'.
- They may know their age and gender.

Preschool Self-Concept

- Preschool children often define themselves using observable characteristics.
- These may include possessions, physical characteristics, preferences, abilities and competencies.
- Early self-concepts are often concrete and based on what children have or what they can do.

Theory of Mind

- Theory of mind refers to an understanding of the connections between thoughts, beliefs, intentions and behaviour.
- It allows children to understand that other people have their own thoughts, beliefs and emotions.

Development of Theory of Mind

- Phase 1: Different desires
    - Children learn that different people can want different things.
- Phase 2: Different beliefs
    - Children learn that people can hold different beliefs about the same situation.
- Phase 3: Different knowledge
    - Children learn that people have different knowledge depending on what they have experienced.
- Phase 4: False beliefs
    - Children learn that a person may hold a belief that is incorrect.
    - They understand that behaviour can be based on a belief even when that belief does not match reality.
    - Most children understand false beliefs at approximately four years of age.
- Phase 5: Hidden emotions
    - Children learn that a person may feel one emotion internally but display another emotion externally.

Theory of Mind and Development

- Theory of mind becomes increasingly complex during the preschool years.
- It contributes to understanding other people's thoughts, beliefs, intentions, emotions and behaviour.
- The textbook notes that children with autism may have a more limited theory of mind.

Important Chapter Connections

- Physical development and exploration
    - As children's bodies grow and motor skills improve, they gain greater access to their environment.
    - Motor skills allow children to explore and manipulate objects.
- Motor development and perception
    - Children use perceptual information to guide movement.
    - Movement creates opportunities for further exploration.
- Perception and learning

    - Sensory abilities provide information about the world.
    - Infants combine information from sight, sound, touch and other sensory systems.

- Experience and development

    - Experience influences brain development, motor development, perceptual development and self-understanding.

- Becoming self-aware

    - As children explore their environment, they also begin to understand themselves and other people's thoughts and beliefs.

Key Terms to Know

- Reflexes; rooting reflex; Apgar score; alert inactivity; waking activity; basic cry; mad cry; pain cry; REM sleep; regular sleep; SIDS; temperament.
- Cephalocaudal principle; malnourished; neuron; cell body; dendrite; axon; terminal buttons; neurotransmitters; cerebral cortex; hemispheres; corpus callosum; frontal cortex; neural plate; myelin; synaptic pruning; electroencephalography; experience-expectant growth; experience-dependent growth.
- Motor skills; locomotion; fine motor skills; dynamic systems theory; differentiation; integration; reaching; grasping; handedness.
- Perception; visual acuity; cones; visual cliff; kinetic cues; visual expansion; motion parallax; retinal disparity; pictorial cues; linear perspective; texture gradient; intersensory redundancy.
- Self-awareness; self-concept; theory of mind; false beliefs.

Quick Chapter Summary

- Newborns are equipped with reflexes and behavioural states that help them survive and interact with their environment.
- Physical development involves rapid growth of the body and major development of the brain and nervous system.
- Motor development allows children to move independently and manipulate objects.
- Perceptual development enables infants to understand information received through their senses.
- Self-awareness develops as children begin recognising themselves as separate individuals.
- Theory of mind allows children to understand that other people have their own thoughts, beliefs and emotions.
- Overall, physical, motor and perceptual development work together to help children explore and understand both their environment and themselves.

Chapter 4 Comprehensive Study Notes

The Emergence of Thought and Language — Cognitive Development in Infancy and Early Childhood

Chapter Overview

- Chapter 4 focuses on cognitive development in infancy and early childhood.
- It examines how children develop the ability to think, learn, remember, solve problems, understand the world and use language.
- The chapter covers Piaget's theory, information-processing theory, Vygotsky's sociocultural theory and language development.

4.1 The Onset of Thinking: Piaget's Account

- Jean Piaget developed one of the most influential theories of cognitive development.
- He believed that children are active participants in their own development.
- Children actively try to understand their experiences, make sense of the world and organise their knowledge.

Schemes

- Schemes are psychological structures that organise experience.
- Infants may have schemes for sucking, grasping and looking.
- As children develop, their schemes become more complex.

Assimilation

- Assimilation occurs when children interpret new experiences using their existing schemes.
- New information is fitted into an existing understanding.

Accommodation

- Accommodation refers to modifying schemes based on new experiences.
- Existing knowledge is changed to accommodate new information.
- Assimilation and accommodation work together to help children adapt to their experiences.

Piaget's Four Stages of Cognitive Development

- 1. Sensorimotor period: Birth to approximately 2 years.
- 2. Preoperational period: Approximately 2 to 7 years.
- 3. Concrete operational period: Approximately 7 to 11 years.

- 4. Formal operational period: Approximately 11 years and older.
- The stages occur in a specific sequence and represent qualitatively different ways of thinking.
- The ages are approximate and children may progress at different rates.

The Sensorimotor Period

- Occurs from birth to approximately 2 years.
- Infants learn primarily through their senses, actions and motor abilities.
- Infants progress from reflexive behaviour to exploration, intentional actions, understanding objects and symbolic thinking.

Intentional Behaviour

- Around eight months, infants begin showing deliberate and intentional behaviour.
- The means and ends of behaviour become distinct.
- An infant may perform an action as a means of achieving a particular goal.
- This represents purposeful and goal-directed behaviour.

Active Experimentation

- Around 12 months, infants become active experimenters.
- They may shake or drop objects to observe what happens.
- Infants actively explore the consequences of their actions.

Object Permanence

- Object permanence is the understanding that objects continue to exist even when they cannot be seen.
- It is an important cognitive achievement because it demonstrates a mental understanding of objects.

Symbolic Thinking

- A symbol is something that represents something else.
- Examples include words, gestures and pictures.
- By approximately 18 to 24 months, children increasingly use symbols.
- Symbolic ability provides an important foundation for more advanced thinking.

The Preoperational Period

- Occurs from approximately 2 to 7 years.
- Children increasingly use symbols to represent objects and experiences.

- Examples include pretend play, language, drawings and gestures.
- Piaget identified limitations in preoperational thinking, including egocentrism, animism and difficulty understanding certain logical concepts.

Egocentrism

- Egocentrism is difficulty seeing the world from another person's point of view.
- It does not necessarily mean selfishness.
- Young children may find it difficult to understand that other people can see, think and feel differently from themselves.
- Piaget used the three-mountains problem to study this difficulty in perspective-taking.

Animism

- Animism refers to attributing thoughts, feelings or intentions to inanimate objects.
- A child may believe that an object or natural phenomenon can think or feel.

Essentialism

- Essentialism refers to the belief that living things possess an internal essence that gives them their fundamental characteristics.
- Young children may develop theories about the underlying nature of living things.

Strengths and Criticisms of Piaget's Theory

- Piaget emphasised that children are active participants in their own development.
- His theory provided an explanation of major changes in thinking and stimulated extensive research.
- One criticism is that Piaget may have underestimated the cognitive competence of young children.
- Research suggests that infants and young children may understand some concepts earlier than Piaget proposed.

Core Knowledge

- The core knowledge approach proposes that infants are born with some specialised systems of knowledge.
- These systems help infants understand important aspects of the world.
- Important areas include objects, numbers, language and other people.

4.2 Information Processing During Infancy and Early Childhood

- The information-processing approach examines how information is received, attended to, learned, stored and remembered.

Mental Hardware and Mental Software

- Mental hardware refers to biological structures that allow information processing.
- Mental software refers to strategies, knowledge and procedures used to process information.

Attention

- Attention involves focusing cognitive resources on particular information.
- An orienting response occurs when a person automatically directs attention toward a new or interesting stimulus.
- Habituation occurs when attention to a familiar stimulus decreases.
- Researchers use habituation to study what infants can detect, discriminate and remember.

Learning During Infancy

- Infants are capable of several forms of learning.
- Classical conditioning occurs when a neutral stimulus becomes associated with another stimulus and eventually produces a response.
- Operant conditioning occurs when behaviour is influenced by its consequences.
- Behaviour followed by rewarding consequences is more likely to be repeated.

Memory

- Memory develops substantially during infancy and early childhood.
- Children become increasingly capable of encoding, storing and retrieving information.
- Autobiographical memory refers to memories of personally experienced events.
- Conversations with adults can influence how children remember personal experiences.

Learning Number Skills

- Young children gradually develop an understanding of numbers.
- The one-to-one principle refers to understanding that each object in a group should be counted once.
- This principle is an important foundation for later mathematical development.

4.3 Mind and Culture: Vygotsky's Theory

- Lev Vygotsky emphasised the importance of culture, social interaction and language.
- Cognitive development occurs partly through interactions with more knowledgeable people.

The Zone of Proximal Development

- The zone of proximal development (ZPD) is the difference between what a child can do independently and what the child can accomplish with assistance.
- Children can achieve more when they receive appropriate support.
- More knowledgeable individuals may include parents, teachers and peers.

Scaffolding

- Scaffolding refers to support provided to help a child successfully complete a task.
- Assistance should match the child's current level of development.
- As the child's abilities improve, support is gradually reduced.

Private Speech

- Private speech occurs when children talk aloud to themselves.
- According to Vygotsky, private speech helps children guide their behaviour, plan actions and solve problems.
- Private speech gradually becomes internalised and develops into silent inner speech.

4.4 Language

- Language allows people to communicate, express thoughts, share ideas and learn from others.
- Language development occurs rapidly during infancy and early childhood.

The Road to Speech

- Language development begins before children can speak recognisable words.
- Crying is one of the earliest forms of communication and can communicate needs and discomfort.
- Cooing refers to early vowel-like sounds produced by babies.
- Babbling involves producing repetitive combinations of sounds.

Infant-Directed Speech

- Infant-directed speech refers to the specialised way adults often speak to infants.

- It may involve higher pitch, greater variation in pitch, slower speech and exaggerated facial expressions.
- It captures infants' attention and may help them identify patterns in speech.

First Words and Symbols

- Children eventually begin producing recognisable words.
- Vocabulary development is influenced by experience, exposure to language and cognitive development.
- Children eventually understand that words are symbols representing objects, actions and ideas.

Fast Mapping

- Fast mapping is the ability to learn a new word quickly after limited exposure.
- A child may hear the name of an unfamiliar object and quickly form an initial understanding of its meaning.

Vocabulary Development

- Children's vocabularies increase rapidly during early childhood.
- Underextension occurs when a child uses a word too narrowly.
- Overextension occurs when a child uses a word too broadly.

Phonological Memory

- Phonological memory is the ability to remember speech sounds.
- It contributes to vocabulary development and language learning.

Individual Differences in Early Language

- Children differ in their early language styles.
- Children with a referential style tend to focus more on naming objects and learning labels.
- Children with an expressive style tend to focus more on social phrases and interactions with other people.

Speaking in Sentences

- As children's language develops, they begin combining words into sentences.
- Telegraphic speech consists of short sentences containing mainly important words.
- Children gradually learn the grammatical rules of their language.

Grammatical Development

- Grammatical morphemes are small units of language that provide grammatical information.
- Overregularisation occurs when children apply a grammatical rule too broadly, including to irregular words.

Communicating with Others

- Language development involves more than learning words and grammar.
- Children must also learn to communicate effectively, participate in conversations, adapt language to different listeners and understand social rules for communication.

Quick Chapter Summary

- Chapter 4 focuses on the development of thought and language during infancy and early childhood.
- Piaget believed children actively construct knowledge through schemes, assimilation and accommodation.
- Important Piagetian stages discussed include the sensorimotor and preoperational periods.
- Important cognitive developments include intentional behaviour, object permanence and symbolic thinking.
- The information-processing approach examines attention, learning and memory.
- Vygotsky emphasised culture, social interaction, language and assistance from more knowledgeable individuals.
- Language develops from early communication and sounds to words, vocabulary, sentences and grammar.

Key Terms to Know

Piaget's Theory

- Schemes; assimilation; accommodation; sensorimotor period; preoperational period; egocentrism; animism; essentialism; symbolic thinking; object permanence; core knowledge.

Information Processing

- Information processing; mental hardware; mental software; attention; orienting response; habituation; classical conditioning; operant conditioning; memory; autobiographical memory; one-to-one principle.

Vygotsky's Theory

- Sociocultural theory; zone of proximal development; scaffolding; private speech.

Language Development

- Language; crying; cooing; infant-directed speech; babbling; fast mapping; underextension; overextension; phonological memory; referential style; expressive style; telegraphic speech; grammatical morphemes; overregularisation.

Chapter 7 Comprehensive Study Notes

Expanding Social Horizons — Socioemotional Development in Middle Childhood

Chapter Overview

- Chapter 7 focuses on socioemotional development during middle childhood.
- The chapter examines family relationships, parenting, sibling relationships, divorce and remarriage, child maltreatment, peer relationships, friendships, groups, popularity, rejection, aggression, victimisation, electronic media, understanding others and prejudice.

7.1 Family Relationships

- Families can be understood as systems in which family members influence one another.
- Parents influence children directly and indirectly, while children also influence parents through their behaviour, attitudes and interests.
- Relationships within the family can affect other family relationships.
- Families are influenced by larger social systems, including communities, schools, religious institutions, work environments and cultural practices.
- The chapter highlights Ubuntu, an African philosophy emphasising common humanity and shared responsibility for raising children.

Parenting Dimensions

- Two important dimensions of parenting are warmth/responsiveness and control.
- Warm and responsive parents tend to be affectionate, involved and responsive to children's emotional needs.
- Control refers to the extent to which parents monitor behaviour, set rules and enforce expectations.

Authoritative Parenting

- Authoritative parents are warm, responsive and firm.
- They set clear standards while encouraging children to develop independence.

Authoritarian Parenting

- Authoritarian parents emphasise obedience, rules and control.
- They may be less responsive to children's views.

Permissive Parenting

- Permissive parents are generally warm and responsive but provide relatively little control or discipline.

Uninvolved Parenting

- Uninvolved parenting involves relatively low levels of warmth, responsiveness and control.

Discipline

- Discipline is intended to help children learn acceptable behaviour.
- Punishment can suppress behaviour but does not necessarily eliminate unwanted behaviour and may have negative side effects.
- Time-out involves temporarily removing a child from a situation where positive reinforcement is available.

Sibling Relationships

- Siblings provide opportunities to develop social skills, cooperation and conflict resolution.
- Children may apply interaction skills learned with siblings to peer relationships.
- Positive sibling relationships are often associated with better peer relationships and well-being.
- Poor sibling relationships may be associated with aggression, bullying, anxiety and depression.
- Sibling relationships may be influenced by gender, temperament, age, parenting and culture.
- Sibling relationships are more likely to be warm when parental treatment is perceived as fair and parents have a warm and harmonious relationship.

Birth Order and Only Children

- Parents may have higher expectations for first-born children.
- The chapter notes that first-born children may be more likely to attend university.
- Later-born children may be more popular or innovative.
- Only children are generally not worse off than children with siblings and may perform equally well or better in some areas.

Divorce and Remarriage

- Divorce can affect school achievement, conduct, adjustment, self-concept and parent-child relationships.

- Children of divorce may be at increased risk of some negative outcomes but are not destined to experience them.
- The first year following divorce may be particularly difficult, although many children adjust better over time.
- Children tend to fare better when parents get along, both parents remain involved and children actively cope with problems.
- Children can thrive in blended families, although adjustment may be complicated by stepfamily relationships.

Child Maltreatment

- Factors associated with child abuse may include poverty, social isolation, cultural attitudes toward violence, parents' own experiences of abuse or neglect, stress and limited parenting resources.
- Younger and unhealthy children may be particularly vulnerable.
- Maltreatment may affect cognitive development, social development and emotional adjustment.
- Parenting programmes can help at-risk families by reducing parental stress and increasing positive parenting behaviour.

7.2 Peers

- During middle childhood, peers become increasingly important.
- Children develop more complex relationships outside the family.

Friendship

- Friendship is a voluntary relationship between two people involving mutual liking.
- By approximately four or five years of age, many children claim to have a best friend.
- For younger children, friendship often involves mutual liking and playing together.
- For older primary school children, friendship increasingly involves trust, loyalty, assistance and dependability.
- Children increasingly expect friends to keep promises, be kind and provide support.

Similarity Between Friends

- Friends often tend to be similar in age, gender, attitudes, interests and popularity.
- Over time, friends may become increasingly similar in their attitudes and values.

Benefits of Friendship

- Children with friends are generally more socially skilled and better adjusted.

- Friendships can provide emotional support, companionship and opportunities to develop social skills.

Groups

- Cliques are small groups of like-minded individuals.
- Cliques may become part of larger social groups known as crowds.
- A dominance hierarchy is a well-defined social structure in which some individuals have more status or influence than others.

Popularity and Rejection

- Some children are more accepted by peers than others.
- Popularity can be influenced by social skills, behaviour and the ability to cooperate.
- Rejected children may experience difficulties in peer relationships and adjustment.

Aggression and Victimisation

- Some children frequently behave aggressively toward others.
- Persistent aggression may negatively affect relationships and development.
- Some children become repeated victims of aggression.
- Chronic victimisation can negatively affect social adjustment and emotional well-being.

Electronic Media

- Electronic media can influence children's development in both positive and negative ways.
- The chapter considers television, video games and social media.

Television

- Educational television programmes can help children learn numbers, letters, shapes, colours, academic concepts and information about the social and physical world.
- Television can also potentially encourage more positive attitudes toward social outgroups.
- The effects of television depend partly on the type of content, how much children watch and how they interpret the content.

Video Games

- Video games may have both positive and negative effects.
- Some games can improve particular skills, such as visual-spatial abilities.
- Other aspects of video game content and use may create developmental concerns.

Social Media

- Social media provides opportunities for communication and social interaction.
- It can also create challenges related to peer relationships and social experiences.

7.4 Understanding Others

- Children's understanding of other people becomes increasingly complex during development.

Describing Others

- Younger children tend to describe others according to physical appearance, possessions, observable characteristics and activities.
- Older children increasingly describe others using personality traits and psychological characteristics.
- With increasing development, descriptions become more abstract, integrated and complex.
- Individuals increasingly recognise that people can have multiple and sometimes contradictory characteristics.

Understanding What Others Think

- Children become increasingly able to understand other people's thoughts, feelings, intentions and perspectives.

Recursive Thinking

- Recursive thinking refers to thoughts that focus on what another person is thinking.
- An example is: I think that she thinks I am upset.

Perspective Taking

- Perspective taking involves understanding another person's point of view.
- This ability becomes increasingly sophisticated during middle childhood.

Prejudice

- As children's social worlds expand, they begin categorising people into social groups.
- Children may use characteristics such as race, gender, age and other socially meaningful characteristics.

Implicit Bias

- Even when overt prejudice decreases, implicit bias may remain.

- Children may automatically associate their own group with positive characteristics and other groups with negative characteristics.

Reducing Prejudice

- Constructive intergroup contact is most effective when groups have equal status, work toward common goals and cooperate rather than compete.
- Positive interactions are supported by parents and teachers.
- Other strategies include encouraging children from different groups to work together, using perspective-taking activities and educating children about prejudice and discrimination.

Quick Chapter Summary

- Chapter 7 examines socioemotional development during middle childhood.
- Families function as systems in which members influence one another.
- Parenting involves dimensions such as warmth, responsiveness and control.
- Sibling relationships provide important opportunities for social development.
- Divorce and remarriage can create adjustment challenges, although many children adapt successfully.
- Peer relationships become increasingly important during middle childhood.
- Friendships develop from shared play and mutual liking to relationships involving trust, loyalty and support.
- Groups, popularity and peer rejection influence children's social experiences.
- Electronic media can have both beneficial and potentially harmful effects.
- Children become increasingly capable of understanding other people's personality, thoughts, feelings and perspectives.
- Prejudice can develop as children categorise people into social groups, while positive cooperation and meaningful contact can help reduce prejudice.

Key Terms to Know

Family Relationships

- Family systems; parenting dimensions; parenting styles; authoritative parenting; authoritarian parenting; permissive parenting; uninvolved parenting; discipline; punishment; time-out; sibling relationships; divorce; blended family; child maltreatment; resilience.

Peer Relationships

- Friendship; clique; crowd; dominance hierarchy; popularity; rejection; aggression; victimisation.

Electronic Media

- Television programmes; video games; social media.

Understanding Others

- Perspective taking; recursive thinking; prejudice; implicit bias.

Chapter 9 Comprehensive Study Notes

Moving into the Adult Social World — Socioemotional Development in Adolescence

Chapter Overview

- Chapter 9 focuses on socioemotional development during adolescence.
- Major topics include identity and self-concept, self-esteem, adolescent egocentrism, sexuality and romantic relationships, career development, substance use, depression, antisocial behaviour, suicide and resilience.

9.1 Identity and the Self

- Self-concept refers to the attitudes, behaviours and values that make a person unique.
- During adolescence, self-concept becomes particularly important.
- Adolescents try to develop an identity that will allow them to participate in the adult world.
- The search for identity involves integrating different and sometimes conflicting aspects of the self.

Erikson: Identity versus Role Confusion

- Erik Erikson believed that adolescence involves the psychosocial conflict of identity versus role confusion.
- Adolescents explore different possible selves while trying to develop a more stable sense of identity.
- Adolescents who achieve a clearer identity are better prepared for later intimate relationships.
- Role confusion occurs when adolescents struggle to develop a clear sense of who they are.

Exploring Possible Identities

- Adolescents use their developing cognitive abilities to explore different possible roles.
- Exploration may involve career choices, romantic relationships, religious beliefs, political beliefs and personal values.
- Hypothetical thinking allows adolescents to imagine themselves in different roles and futures.

Identity Status

- Identity achievement involves developing a sense of identity after exploring different possibilities.

- Foreclosure occurs when an adolescent commits to an identity without adequately exploring alternatives.
- Moratorium involves actively exploring different alternatives without yet making a final commitment.
- Identity diffusion involves a lack of clear commitment and limited exploration of identity alternatives.

Adolescent Egocentrism

- Adolescent egocentrism refers to adolescents' tendency to focus strongly on themselves and their own thoughts and experiences.

Imaginary Audience

- The imaginary audience is the belief that other people are constantly watching and evaluating the adolescent.
- This can lead adolescents to become highly concerned about their appearance, behaviour and what others think of them.

Personal Fable

- The personal fable refers to the belief that one's experiences and feelings are unique.
- Adolescents may believe that others cannot truly understand what they are experiencing.

Illusion of Invulnerability

- The illusion of invulnerability is the belief that negative events are unlikely to happen to oneself.
- This belief may contribute to risk-taking behaviour.

Self-Esteem

- Self-esteem refers to a person's evaluation of their own worth.
- Self-esteem may change during adolescence.
- Adolescents may evaluate themselves in areas such as academic ability, physical appearance, social relationships and athletic ability.

Sexuality and Romantic Relationships

- Adolescence is an important period for the development of sexuality.
- Romantic relationships become increasingly significant.

Romantic Relationships

- Adolescent romantic relationships can provide opportunities to develop intimacy, emotional closeness, communication skills and understanding of relationships.

Sexual Behaviour

- Adolescents begin making decisions about sexual behaviour.
- Sexual decisions can have important consequences for physical health, emotional well-being and relationships.
- Knowledge and responsible sexual decision-making are important for reducing risks.

Sexual-Minority Youth

- Sexual-minority adolescents may face particular developmental challenges.
- Social acceptance and support are important for well-being.

9.2 Preparing for the World of Work

- Adolescence involves increasing attention to future work and career choices.
- Adolescents begin considering their abilities, interests, personal values and career opportunities.

Personality-Type Theory

- Personality-type theories propose that people may be drawn to particular types of work based on their personality characteristics.

Holland's Personality Types

- Holland proposed six work-related personality types: Realistic, Investigative, Social, Conventional, Enterprising and Artistic.
- People tend to be more productive when there is a good match between their personality and their work environment.

Social Cognitive Career Theory

- Social Cognitive Career Theory explains vocational choices partly through beliefs about one's abilities and beliefs about the outcomes of one's behaviour.

Unemployment and Adolescents

- Youth unemployment can have serious effects on adolescents.
- Unemployment may contribute to depression, stress, low self-esteem and shame.

- Economic difficulties may also threaten basic survival.
- Some young people seek income through informal-sector work or entrepreneurship.

When Things Go Wrong

- Adolescence can involve a range of developmental challenges and psychological difficulties.

Substance Use

- Many adolescents drink alcohol.
- Major influences on adolescent drinking include parents, peers and stress.
- Adolescent smoking is also influenced by parents and peers.

Depression

- Depressed adolescents may have little enthusiasm for life, believe that others are unfriendly, want to be left alone and experience sadness and emotional difficulties.

Depression: Causes and Risk Factors

- Depression may be triggered by serious loss, disappointment, failure and stressful life events.
- Not all adolescents who experience negative events become depressed.
- Heredity may increase the risk of depression.
- Adolescents who struggle to regulate their emotions may be more vulnerable.
- Depression-prone adolescents may see themselves negatively and be more likely to blame themselves for failures.
- Family risk factors may include highly critical parents, lack of acceptance, inconsistent discipline and frequent parental conflict.

Depression in the South African Context

- Contextual factors associated with adolescent depression in South Africa include families affected by HIV, difficult childhood experiences, low income, poverty, food insecurity and lack of employment.

Racial Discrimination and Depression

- Racial discrimination can function as a chronic stressor that may negatively affect mental health.
- Greater perceived racial discrimination may be associated with more depressive symptoms.

Treating Depression

- Medication may help reduce symptoms of depression.
- Psychotherapy is another important treatment approach.
- In cognitive behavioural therapy, adolescents learn to replace negative thoughts with more positive thoughts and become involved in pleasurable and rewarding activities.
- Other forms of psychotherapy may focus on processing losses and adverse experiences.

Suicide

- Suicide is a major concern during adolescence.
- Factors associated with suicide risk include substance abuse, a family history of suicide and depression.
- Depression is identified as a particularly important predictor.

Antisocial Behaviour

- Many young people engage in antisocial behaviour for a relatively brief period during adolescence.
- This behaviour does not necessarily continue throughout adulthood.

Adolescent-Limited Antisocial Behaviour

- Adolescent-limited antisocial behaviour refers to antisocial behaviour that is largely restricted to adolescence.

Life-Course Persistent Antisocial Behaviour

- A smaller group of individuals engage in life-course persistent antisocial behaviour.
- These individuals may be involved in a large proportion of serious crimes.
- Factors associated with persistent antisocial behaviour include biological factors, cognitive processes, family processes and poverty.

Reducing Criminal Activity

- Efforts to reduce serious adolescent criminal behaviour need to address multiple contributing factors rather than focusing on only one cause.

Resilience

- Resilience is the ability to bounce back in the face of difficult circumstances.

Resilience in South Africa

- South African adolescents can demonstrate resilience despite difficult circumstances such as poverty, exposure to violence, trauma and HIV.
- Factors that may promote resilience include personal strengths, supportive family relationships, cultural values and practices, and community resources.

Quick Chapter Summary

- Chapter 9 examines socioemotional development during adolescence.
- A major developmental task is establishing a clear sense of identity.
- Erikson described adolescence as the stage of identity versus role confusion.
- Adolescents explore possible identities related to careers, relationships, values, religion and politics.
- Adolescent egocentrism includes the imaginary audience, personal fable and illusion of invulnerability.
- Romantic relationships and sexuality become increasingly important.
- Adolescents increasingly prepare for future careers and work.
- Youth unemployment can negatively affect psychological well-being.
- Adolescents may experience problems involving substance use, depression, antisocial behaviour and suicide.
- Depression is influenced by biological, psychological and sociocultural factors.
- Resilience helps young people cope with difficult circumstances.
- Personal, family, cultural and community resources can promote resilience.

Key Terms to Know

Identity and the Self

- Self-concept; identity versus role confusion; identity achievement; foreclosure; moratorium; identity diffusion; adolescent egocentrism; imaginary audience; personal fable; illusion of invulnerability; self-esteem.

Career Development

- Personality-type theory; Holland's personality types; Social Cognitive Career Theory (SCCT); crystallisation; specification; implementation; entrepreneurship.

Problems During Adolescence

- Depression; psychotherapy; antisocial behaviour; adolescent-limited antisocial behaviour; life-course persistent antisocial behaviour; resilience.

Chapter 10 Comprehensive Study Notes

Becoming an Adult — Physical, Cognitive, and Personality Development in Young Adulthood

Chapter Overview

- Chapter 10 focuses on development during young adulthood.
- Major topics include emerging adulthood, physical development and health, cognitive development, intelligence in adulthood, postformal thinking, personality development, life stories, possible selves and personal control beliefs.

10.1 Emerging Adulthood

- Becoming an adult is an important developmental transition.
- The transition to adulthood may occur differently across individuals, cultures and societies.
- Young adulthood is a period during which people increasingly take on adult roles and responsibilities.

Role Transitions Marking Adulthood

- One way of determining whether a person has reached adulthood is through role transitions.
- Role transitions involve assuming new responsibilities, duties and social roles.
- Examples include completing education, entering the workforce, becoming financially independent, forming intimate relationships and taking responsibility for one's own decisions.

Rites of Passage

- Some societies use formal rituals called rites of passage to mark the transition into adulthood.
- These rituals make the transition from one life stage to another clear.
- Clearly defined rites of passage are largely absent in Western culture.

Neuroscience, Behaviour, and Emerging Adulthood

- The prefrontal cortex continues developing into young adulthood.
- It becomes fully developed and forms important connections with other areas of the brain.
- Continued brain development may help explain changes in behaviour, decision-making and self-control.

Edgework

- Edgework may reflect aspects of continued neurological development.
- It involves voluntarily engaging in activities involving risk or danger.

Erikson's View of Young Adulthood

- Young adults make the transition to Erikson's psychosocial conflict of intimacy versus isolation.
- The major developmental challenge involves developing close and meaningful relationships.
- Successful intimacy involves the ability to form close connections with others.
- Difficulty forming close relationships may result in isolation.

Achieving Adult Milestones

- Young adults may achieve adulthood through milestones involving education, career development and increasing independence.

Higher Education

- Many young adults continue their education through universities, colleges and other forms of tertiary education.
- University students experience important transitions in thinking.

Mature and Returning Students

- Returning adult students tend to be highly focused on their academic programmes.
- They may face challenges balancing education, careers and family responsibilities.

Career and Job Training

- Many emerging adults obtain career or job training to further their education without necessarily obtaining a university degree.
- Career training can help prepare young adults for employment.

Entering the Workforce

- Joining the workforce is an important step toward financial independence and adult responsibility.
- Financial independence is an important marker of adulthood.

10.2 Physical Development and Health

- Young adulthood is generally the period during which many physical abilities are at their peak.

Physical Peak

- Peak abilities include strength, muscle development, coordination, dexterity and sensory acuity.
- Many physical abilities begin to decline during middle adulthood.

Growth, Strength, and Physical Functioning

- Young adults generally have high levels of physical functioning.
- Physical abilities are influenced by biological factors, lifestyle and health behaviours.

Lifestyle Factors and Health

- Lifestyle choices can strongly influence health during young adulthood and later life.
- Important lifestyle factors include smoking, alcohol use, nutrition and physical activity.

Smoking

- Smoking has negative consequences for health.
- Young adulthood may be a time when individuals decide to change unhealthy habits.

Alcohol Use

- Alcohol consumption can affect physical and psychological health.
- Excessive alcohol use may create significant health risks.

Nutrition

- Nutrition is an important factor influencing health.
- Healthy eating habits can support physical functioning, long-term health and overall well-being.

Healthcare Disparities

- Access to healthcare is not equal for all people.
- The chapter considers healthcare disparities in the South African context.

10.3 Cognitive Development

- Intelligence during adulthood is complex and multifaceted.
- Most theories of intelligence are multidimensional, meaning that they identify several different types of intellectual abilities.

Multidirectionality

- Multidirectionality refers to a developmental pattern in which some aspects of intelligence improve while other aspects decline.
- Different intellectual abilities therefore do not necessarily change in the same direction.

Interindividual Variability

- Interindividual variability refers to differences between people in patterns of intellectual development.
- Intellectual development can vary from one person to another.

Plasticity

- Plasticity refers to the fact that intellectual abilities are not completely fixed.
- Abilities can be modified under the right conditions at different points during adulthood.

Structure of Intelligence

- The structure of intelligence refers to the organisation of interrelated intellectual abilities.
- The psychometric approach focuses on understanding relationships between different intellectual abilities.

Primary and Secondary Mental Abilities

- Primary mental abilities are clusters of related abilities.
- They represent relationships between scores on intelligence tests that measure similar abilities.
- Secondary mental abilities represent higher-level relationships between primary mental abilities.

Fluid Intelligence

- Fluid intelligence involves the ability to think flexibly, reason and solve new problems.
- It is especially important when dealing with unfamiliar situations.

Crystallised Intelligence

- Crystallised intelligence involves knowledge and skills acquired through education, experience and learning.
- It includes accumulated knowledge and expertise.

Practical Intelligence

- Practical intelligence refers to skills related to how individuals shape, select and adapt to their physical and social environments.
- It focuses on solving real-world problems.
- Everyday problems may have more than one correct answer and personal experience can be highly relevant.

The Seattle Longitudinal Study

- The chapter includes the Seattle Longitudinal Study as research relevant to intellectual development across adulthood.
- Longitudinal research allows researchers to examine developmental changes over time.

Going Beyond Formal Operations

- Adult thinking may go beyond the formal operational thinking described by Piaget.
- Postformal thought reflects more advanced forms of adult thinking.

Characteristics of Postformal Thought

- Adult thinking may be more practical, flexible and realistic.
- It may be better adapted to real-life situations.

Integrating Emotion and Logic

- Adult thinking increasingly involves the integration of emotion and logic.
- Effective decision-making does not involve logic alone.
- Emotional information can influence how adults understand situations, make decisions and form impressions of others.

Emotional Intelligence

- Emotional intelligence involves understanding and effectively using emotional information.
- It reflects the integration of cognitive and emotional processes.

10.4 Personality in Young Adulthood

- Young adulthood is a time when people increasingly think about who they are, who they want to become and what they want their future to look like.

Creating Life Stories

- Based on personal experience and input from other people, young adults create a life-span construct.
- This represents a unified sense of the past, present and future.

Factors Influencing Life Stories

- Identity, values, society and personal experiences influence the development of life stories.
- These factors influence how people understand their lives, plan their futures and whether their life stories remain stable or change.

Possible Selves

- Possible selves represent what people imagine they might become in the future.
- People may think about what they would like to become, what they could become and what they are afraid of becoming.
- Possible selves help individuals think about and plan for their futures.

Personal Control Beliefs

- Personal control beliefs reflect the extent to which people believe that their performance in a situation depends on their own actions.
- These beliefs influence how individuals approach challenges, understand success and failure and respond to difficult situations.

Primary Control

- Primary control involves attempts to influence or change the external environment.

Secondary Control

- Secondary control involves changing one's thoughts, emotions or behaviour.
- It involves behaviour or cognition aimed at affecting the individual's internal world.

Quick Chapter Summary

- Chapter 10 examines physical, cognitive and personality development in young adulthood.

- The transition into adulthood is often marked by new responsibilities, role transitions and financial independence.
- The prefrontal cortex continues developing into young adulthood.
- Young adults face Erikson's developmental challenge of intimacy versus isolation.
- Education, career training and entering the workforce are important milestones.
- Young adulthood is generally the physical peak for strength, coordination, dexterity and sensory functioning.
- Lifestyle choices have important consequences for present and future health.
- Intelligence in adulthood is multidimensional.
- Fluid and crystallised intelligence represent different forms of intellectual ability.
- Practical intelligence reflects the ability to solve everyday, real-world problems.
- Adult thinking may extend beyond formal operations through postformal thought.
- Young adults construct life stories and imagine possible future selves.
- Personal control beliefs influence how people understand and respond to life events.

Key Terms to Know

Emerging Adulthood

- Emerging adulthood; role transitions; rites of passage; prefrontal cortex; edgework; intimacy versus isolation; financial independence.

Physical Development and Health

- Physical functioning; lifestyle factors; healthcare disparities.

Cognitive Development

- Multidimensional intelligence; multidirectionality; interindividual variability; plasticity; structure of intelligence; primary mental abilities; secondary mental abilities; fluid intelligence; crystallised intelligence; practical intelligence; postformal thought; emotional intelligence.

Personality Development

- Life-span construct; life stories; possible selves; personal control beliefs; primary control; secondary control.

Chapter 12 Comprehensive Study Notes

Working and Relaxing

Chapter Overview

- Chapter 12 focuses on work, occupational development, family responsibilities and leisure during adulthood.
- Major topics include occupational selection and development, job satisfaction, gender and discrimination in the workplace, occupational transitions, unemployment, work and family responsibilities, dependent care, multiple roles and leisure activities.

12.1 Occupational Selection and Development

- Choosing an occupation is an important developmental task.
- Occupational choice is influenced by personal interests, abilities, values, personality, available opportunities and social and cultural influences.

Occupational Choice Revisited

- Career development is not limited to making one occupational choice.
- People may reconsider and change their occupational goals throughout adulthood.
- Career decisions can be influenced by changing interests, family circumstances, economic conditions and employment opportunities.

Occupational Development

- Occupational development is a continuous process.
- Adults may enter new occupations, develop new skills, change careers, receive additional training and adapt to changing workplace demands.

Job Satisfaction

- Job satisfaction refers to how positively a person evaluates their work.
- Job satisfaction may be influenced by working conditions, income, relationships with colleagues, opportunities for advancement, the meaning attached to work and whether the job matches personal interests and abilities.

12.2 Gender, Ethnicity, and Discrimination Issues

- Gender can influence occupational choices and opportunities.
- Traditional social expectations may influence the careers people consider appropriate.

- Gender differences in occupational development may be influenced by socialisation, cultural expectations and access to opportunities.

Women and Occupational Development

- Women may experience particular challenges in occupational development.
- Career development may be affected by balancing employment, parenting and family responsibilities.
- Workplace barriers may also influence opportunities for advancement.

Previously Disadvantaged Employees

- Historical and social inequalities can influence occupational opportunities.
- Previously disadvantaged employees may experience particular barriers to occupational development.
- Access to education, training and employment opportunities can influence occupational outcomes.

Bias and Discrimination

- Bias involves unfair attitudes or beliefs.
- Discrimination involves unfair treatment based on characteristics such as gender, ethnicity or other group membership.
- Workplace discrimination can influence career opportunities, job satisfaction, promotion and psychological well-being.

Gender Bias

- Gender bias can create barriers to occupational advancement.
- Women may encounter unequal expectations or treatment in the workplace.

Glass Ceiling

- The glass ceiling refers to invisible barriers that prevent qualified individuals from advancing to senior positions.

Glass Cliff

- The glass cliff refers to situations in which women are more likely to be placed in leadership positions during times of organisational crisis or difficulty.
- These positions may involve a greater risk of failure.

12.3 Occupational Transitions

- Changes in technology and the economy can require workers to adapt to new occupational demands.

Retraining Workers

- Retraining helps workers adapt to new technology, changes in job requirements and changes in the labour market.

Occupational Insecurity

- Occupational insecurity involves uncertainty about continued employment.
- Job insecurity can create stress, anxiety and financial concerns.

Unemployment

- Unemployment can have significant psychological and social consequences.
- Losing employment may affect financial security, self-esteem, identity and psychological well-being.

Coping with Unemployment

- People cope with unemployment in different ways.
- Helpful responses may include seeking new employment, retraining, developing new skills, seeking social support and adjusting career goals.

12.4 Work and Family

- Adults may need to balance employment with a range of family responsibilities.

The Dependent Care Dilemma

- Adults may have responsibilities for both children and ageing parents.
- Balancing these responsibilities can create significant challenges.
- This situation is associated with pressures experienced by adults who care for multiple generations.

Juggling Multiple Roles

- Adults may need to balance several roles, including employee, parent, partner, caregiver and child of ageing parents.

Role Conflict

- Multiple roles can create conflict when the demands of one role interfere with another.
- Balancing work and family responsibilities can produce stress, time pressure and emotional strain.

Role Benefits

- Multiple roles can also have positive effects.
- Different roles may provide social support, a sense of purpose, personal satisfaction and meaning.

12.5 Taking Time to Relax: Leisure Activities

- Leisure refers to activities people engage in during their free time.
- Leisure activities can contribute to relaxation, enjoyment, physical health, psychological well-being and social relationships.

Types of Leisure Activities

- Leisure activities may include physical activities, social activities, creative activities, hobbies, entertainment and recreational activities.

Developmental Changes in Leisure

- Leisure interests can change across adulthood.
- Changes may be influenced by age, health, family responsibilities, work demands and financial resources.

Consequences of Leisure Activities

- Positive leisure experiences can contribute to reduced stress, improved psychological well-being, physical health, social interaction and greater life satisfaction.

Key Concepts

- Occupational selection and development.
- Job satisfaction.
- Occupational transitions.
- Retraining.
- Occupational insecurity.
- Unemployment.
- Bias and discrimination.

- Gender bias.
- Glass ceiling and glass cliff.
- Dependent care dilemma.
- Multiple roles and role conflict.
- Leisure activities.

Quick Chapter Summary

- Chapter 12 examines the importance of work and leisure during adulthood.
- Occupational development is an ongoing process rather than a single career decision.
- Job satisfaction is influenced by workplace conditions and personal factors.
- Gender, ethnicity, historical inequality, bias and discrimination can influence occupational opportunities.
- The glass ceiling and glass cliff illustrate barriers and risks that may affect women in leadership positions.
- Adults may need to adapt to occupational transitions through retraining and the development of new skills.
- Occupational insecurity and unemployment can negatively affect psychological well-being.
- Adults often need to balance work with responsibilities toward children, partners and ageing parents.
- Multiple roles can create stress but can also provide meaning and satisfaction.
- Leisure activities are important for relaxation, health, social relationships and psychological well-being.