

Developmental Perspectives on Learning

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WATS

Proverbs of Development

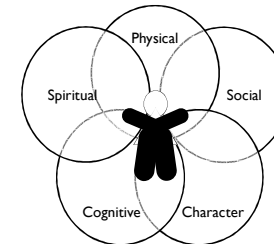
- ▶ What an elderly man sees sitting down, a young man on a Iroko tree won't see.
- ▶ You have not crawled yet, but you want to run.
- ▶ A child may know how to run, but not where to hide.
- ▶ Seeing somebody very short does not make him a child.
- ▶ For a child, size matters. For an adult, value matters.
- ▶ A child today is a leader tomorrow.

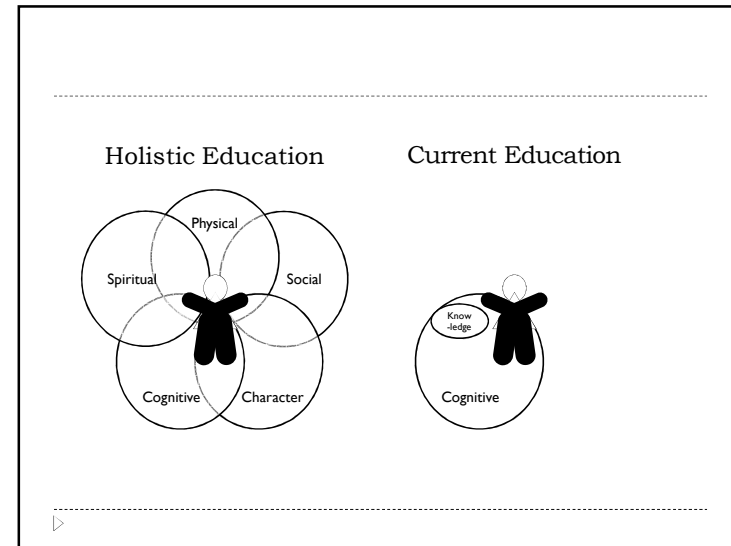
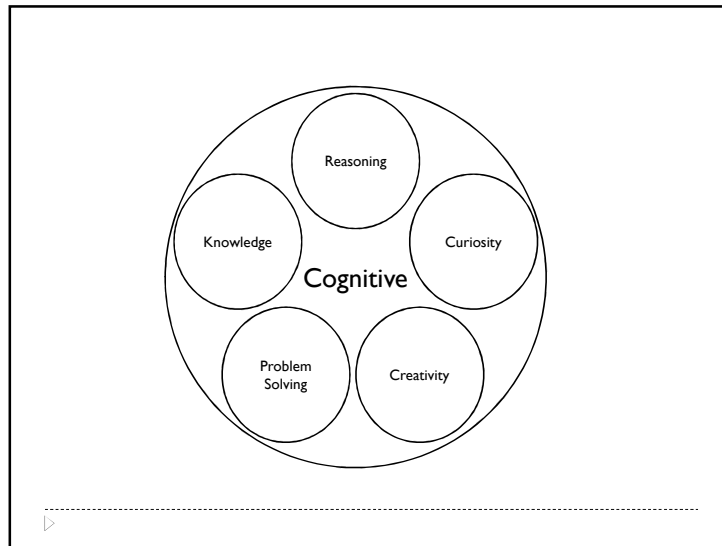
Development

- ▶ **Development:** Changes that occur in an individual over time
 - ▶ **Changes:** Can be positive or negative
 - ▶ **Individual:** One person
 - ▶ **Time:** An indefinite period – can be short or long term

Domains of Development

- ▶ **Physical:** Growth and health
- ▶ **Social:** Interactions with others
- ▶ **Character:** Behavior that reflects good morals and ethics
- ▶ **Cognitive:** Mental/thinking abilities
- ▶ **Spiritual:** Daily transformation in the image of God through faith and obedience





Periods of Development

- ▶ **Antenatal:** Nine months of pregnancy
- ▶ **Infancy:** Birth through 1 year
- ▶ **Toddlerhood:** 1 to 2 years
- ▶ **Early Childhood:** 2 to 6 years
- ▶ **Middle Childhood:** 6 to 11 years
- ▶ **Adolescence:** 12 to 18 years
- ▶ **Young Adulthood:** 19-30 years
- ▶ **Middle Adulthood:** 31-60 years
- ▶ **Old Adulthood:** 61+ years

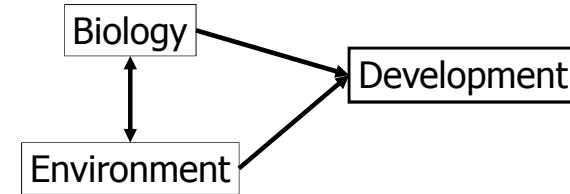
Influences on Development

- ▶ Influences on development can be grouped into two categories:
 - ▶ **Nature:** Genetically programmed, naturally occurring changes over time
 - ▶ **Environment:** Experiences that occur in a person's daily life (Nurture)
- ▶ *What influences development more: nature or nurture?*

Influences on Development

- ▶ “Anastasi (1958) pointed out that initially psychologists did not ask the right question. We should not have asked *which* (heredity or environment) causes a behavior or *how much* of each is needed for a given behavior. Instead, we should ask *how* (in what manner) nature and nurture interact to produce development... Today, nearly everyone agrees that a complex interaction of innate and environmental factors account for... development... Nature and nurture are inextricably intertwined.” (Miller, 2002, p. 20).

Influences on Development



General Principles of Development

- ▶ Individuals develop at different rates
 - ▶ Age is NOT synonymous with development
- ▶ Development is orderly
 - ▶ New skills and abilities build on already known skills and abilities
 - ▶ Parents and caregivers CANNOT expect children to learn or do something if they have not mastered prerequisite knowledge and skills
- ▶ Development takes place gradually
 - ▶ Parents and caregivers have to be patient with children

Cautions of Developmental Research

- ▶ **Fact:** Most developmental research is conducted in Western settings
- ▶ **Fact:** Almost all developmental theories have been developed by Westerners on research conducted in Western settings
- ▶ **Conclusions**
 - ▶ Most developmental theories and principles should be critically evaluated to determine if they reflect the Nigerian context
 - ▶ More developmental research should be conducted in Nigeria to develop indigenous developmental theories and principles
 - ▶ The spiritual domain of development is particularly overlooked

Child Development before Conception

- ▶ Parental health can affect child development before conception
 - ▶ To improve the likelihood of conceiving a healthy child, both parents should reduce their intake of caffeine, alcohol, tobacco, and other drugs

Conception

- ▶ **Fertilization:** The process of fertilizing involving the fusion of male and female gametes to form a zygote

▶ Periods of Antenatal Development

Period	Weeks	Size	Major Events
Ovum	0-2	Microscopic	Zygote (fertilized ovum) divides into multiple cells rapidly. Implants into uterine wall.
Embryo	2-8	Less than 1 inch long	Heart, muscles, backbone, brain, and spinal cord begin to form. Form arms, legs, toes, and fingers.
Fetus	9-38	2 inches to 20 inches	Rapid growth. Hear heartbeat. Sex of fetus can be identified. Mother feels movement. Lungs mature and brain develops.

Antenatal Physical Development

- ▶ By the end of the first month, the baby:
 - ▶ Has a heartbeat
 - ▶ Eyes, ears, nose, and arms begin to form
- ▶ From 8-12 weeks, the genitalia begin to form
- ▶ In the third trimester:
 - ▶ The baby practices behaviors like swallowing and breathing
 - ▶ The baby's heart rate slows when it hears its mother's voice, suggesting that the baby pays attention to its mother.

Antenatal Cognitive Development

- ▶ Fetuses can differentiate sounds by 33 weeks (about 8 months)
 - ▶ The brain shows a high level of activity when hearing different languages or unusual voices
 - ▶ Fetuses respond to music
- ▶ In a research study, mothers were asked to recite a short poem 3 times a day for the last 4 weeks of pregnancy
 - ▶ Babies' heart rates slowed when their mother recited that poem, but did not slow when their mother recited other poems.

Maternal Influences on Antenatal Development

- ▶ **Maternal Nutrition.** Poor maternal nutrition influences:
 - ▶ Miscarriages
 - ▶ Infant mortality
 - ▶ Malformations in the baby
 - ▶ Low birth weight
 - ▶ Underdeveloped brains
 - ▶ Cognitive delays
 - ▶ Aggressive and criminal behavior

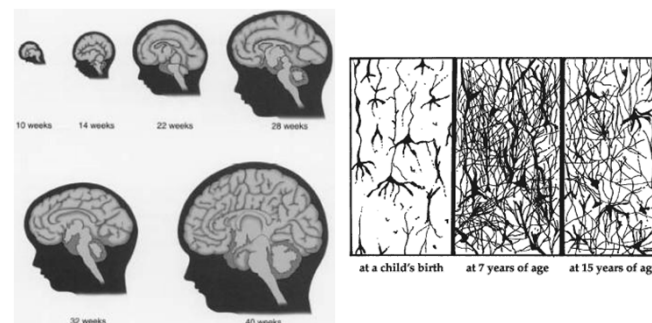
Maternal Influences on Antenatal Development

- ▶ **Maternal Stress:**
 - ▶ Depression in pregnant women can lead to:
 - ▶ Premature birth
 - ▶ Smaller babies
 - ▶ Delayed development of infants
- ▶ **Maternal diseases** can affect the baby in different ways
- ▶ **Mothers taking prescription drugs** can lead to malformations amongst babies

Maternal Influences on Antenatal Development

- ▶ **Alcohol** kills the brain cells of babies, leading to many physical, cognitive, and social outcomes
- ▶ **Smoking** both by mothers and second-hand smoke (e.g., fathers) can cause:
 - ▶ Poor growth and higher infant mortality
 - ▶ Babies who continually cry, have shorter attention spans, and other behavioral and intellectual difficulties

Infancy Physical Development: Brain Growth



▶ The brain more than doubles in size during infancy

▶ Synapses rapidly develop in the first three years of life.

Infancy Physical Development

- ▶ Fostering brain growth
 - ▶ Good nutrition
 - ▶ Warm physical contact
 - ▶ Reduces the amount of cortisol (hormone) in the brain after stressful events
 - ▶ Exposure to:
 - ▶ Visual stimuli
 - ▶ Language/singing
 - ▶ Music
 - However, over-stimulation can be harmful



Infancy Cognitive Development

- ▶ **Memory** can last as long as:
 - ▶ 1 day by age 2 months
 - ▶ 1 week by 3 months
 - ▶ Longer than 2 weeks by 6 months
- ▶ **Mathematical Understanding**
- ▶ **Language Development**
 - ▶ **3 months:** The baby begins to coo (“ooh, aah”)
 - ▶ **6-7 months:** Babbling, consists of repeated consonant-vowel combinations
 - ▶ Playing with language is a way of practicing speaking
 - ▶ **9 months:** 1) Understand about 20-30 words
 - ▶ 2) Use gestures to communicate
 - ▶ **12-14 months:** 1) Says first word
 - ▶ 2) Respond to simple verbal requests
 - ▶ **18-24 months:** Word spurt, when children's vocabulary begins to rapidly increase
 - ▶ **24 months:** Uses 2 to 4 word sentences



Infancy Cognitive Development: Language

- ▶ Sounds produced by infants are similar across languages
 - ▶ Infants are selectively encouraged to make the sounds in their own language
- ▶ The most important factor in language development is the amount of language that child is exposed to (**Language Nutrition**)
 - ▶ Talk to infants
 - ▶ Sing to infants
 - ▶ Read to infants
 - ▶ Children whose parents read out loud to them:
 - Show more interest in reading
 - Have larger vocabularies
 - Learn to read faster
 - ▶ *National Centre for Education in Maternal and Child Health* recommends beginning to read to children at 2 months old.
 - ▶ Respond to infants' attempts at language



Toddlers

- ▶ Key Milestones in the toddler years:
 - ▶ Walking
 - ▶ Talking
 - ▶ Interacting with others
 - ▶ Developing self-care skills
- ▶ Toddlers are generally more active and energetic than at any other point in their lives



Toddlers Cognitive Development

- ▶ Toddlers are always thinking, experimenting, and solving problems
 - ▶ Toddlers learn in the context of important relationships
 - ▶ Toddlers learn when they are allowed to explore in an enriched environment
 - ▶ Oral language is the most important cognitive skill in toddlerhood
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Toddlers Cognitive Development: Reading

- ▶ Reading skills toddlers can develop:
 - ▶ Interest in reading
 - ▶ Correct handling of books
 - ▶ Familiarity with text
 - ▶ Oral language skills
 - ▶ **18 months:** Show an interest in books and pictures of familiar objects
 - ▶ **24 months:** Turn book right side up, Point at pictures in book, Follow simple stories
 - ▶ **36 months:** Turn pages in the book, Read same book over and over, Complete sentences in familiar stories
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Toddler Cognitive Development: Writing

- **18 months:** Ability to hold a large crayon and makes marks
 - **24 months:** Scribble enthusiastically
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Fostering Toddler's Language Development

- ▶ Help toddlers tell stories, such as what happened that day
 - ▶ Expand on what children say
 - ▶ Sing songs
 - ▶ Read storybooks
 - ▶ Discuss pictures
 - ▶ Point to and discuss print in the environment
 - ▶ Give toddlers materials to draw
 - ▶ Ask toddlers to discuss what they drew
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Toddlers Social Development

- ▶ Toddlers are egocentric
 - ▶ **Egocentrism:** Inability to take another person's perspective
- ▶ Toddlers start playing with other children



Early Childhood

- ▶ Early Childhood is a time of tremendous growth and development in all domains
- ▶ There are many qualitative changes in children's abilities



Early Childhood Physical Development

- ▶ Slow but steady increase in height, weight, and muscle tone
 - ▶ Growth rate slows compared to infancy
- ▶ Gradual refinement in **gross motor** skills (large movement)
 - ▶ Climb stairs, Balance, Jump over obstacles, Catch and kick balls
- ▶ Remarkable advances in **fine motor** skills (small movement, mostly in the hands)
 - ▶ Eat with spoon, Zip and button on clothes, Cut with scissors, Mold clay



Early Childhood Social Development

- ▶ Social skills improve greatly in preschool as they interact with peers and their siblings
- ▶ Important social skills
 - ▶ (Berk, 2009):
 - ▶ Emergence of self
 - ▶ Self-concept
 - ▶ Self-esteem
 - ▶ Identity
 - ▶ Thinking about other people
 - ▶ Social problem solving



Important Social Skills: Nigerian Survey

S/No	Social Skill	Frequency	Percent
1	Obedience	16	50%
2	Faith	13	41%
3	Gratitude	11	34%
4	Discipline	10	31%
5	Forgiveness	10	31%
6	Hospitality	9	28%
7	Integrity/Honesty	9	28%
8	Respect	9	28%
9	Humility	7	22%
10	Care and compassion	5	16%
11	Contentment	5	16%
12	Emotional expression	4	13%
13	Identity	4	13%
14	Self-awareness	4	13%

Early Childhood Development of Self Control

- ▶ Young children are in the process of developing strategies for self-control
 - ▶ A key strategy is the ability to direct attention in appropriate ways

Early Childhood Language Development

- ▶ **Word Spurt:** 2 year olds know about 50 words. By 6 years, children know 10,000 words
 - ▶ Young children learn about 5-7 words every day
- ▶ Young children learn vocabulary so quickly and accurately that some experts believe children have an innate capacity for learning vocabulary
 - ▶ NOTE: Young children do NOT learn this many words each day by direct instruction in the definition of vocabulary words

Early Childhood Cognitive Development

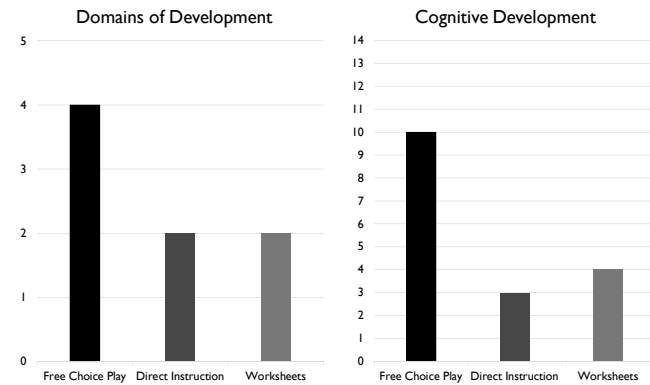
- ▶ Language and Reading skills are the most important skills that young children need to learn in the early years
 - ▶ Teaching English does NOT necessarily lead to good reading skills
- ▶ Pre-Reading and Reading Skills
 - ▶ **Oral language:** Ability to listen and speak
 - ▶ **Interest in Reading:** Value and enjoy reading
 - ▶ **Phonemic awareness:** Ability to identify sounds in spoken words
 - ▶ **Print awareness:** Understand the nature of print
 - ▶ **Phonics:** Identify the sounds that correspond to letters
 - ▶ **Reading Fluency:** Read a text quickly and accurately
 - ▶ **Vocabulary knowledge:** Understand the meaning of words
 - ▶ **Comprehension:** Understand the meaning of a text
- ▶ The single most important activity for building children's reading skills is reading aloud
 - ▶ Experts recommend reading aloud to a child at least once per day

Early Childhood Cognitive Development

- ▶ **Driven to learn:** Naturally curious, proactive, and persistent in attempts to learn
 - ▶ “Teachers need to create a realistic and interesting learning environment by bringing the world into the classroom...and then getting out of the way as children learn” (Holt, 1995)
- ▶ **Think Concretely:** Require tangible, observable objects to learn from and about (More in Piaget)
- ▶ **Unidimensional reasoning:** Focus only on one dimension (part) of a problem (More in Piaget)
- ▶ **Self-Directed Speech:** Use of language to plan and direct their own behavior, particularly in difficult tasks (More in Vygotsky)



Analysis



▶ **Conclusion:** Free choice play nurtures many more areas of development than direct instruction or worksheets

Enriched Play

- ▶ **Enriched:** To make richer by adding a desirable ingredient/nutrient
- ▶ **Enriched Play:** Make play richer/effective for nurturing holistic development as the teacher adds “nutrients”
 - ▶ As children are playing, add “nutrients” to emphasize the language, reading, writing, maths, science, and Christian topics that children are implicitly interacting with



Early Childhood Cognitive Development

- ▶ How young children learn
 - ▶ **Relationships:** Warm, nurturing relationships are important for young children’s learning
 - ▶ **Enjoyable learning experiences**
 - ▶ Joy is important for the learning process, particularly for young children (Copple & Bredekamp, 2009)
 - ▶ **Active learning experiences**
 - ▶ “Decades of research suggest that children learn best when they are active...and when an activity is socially interactive” (Hirsh-Pasek & Golinkoff, 2015, p. 1)
 - ▶ **Implicit learning experiences:** Young children learn best NOT by direct instruction, but by guidance as they are playfully engaged in everyday activities
- ▶ *Young children are gifted learners, but they should not be expected to learn in the same manner as older children*



A critical peek at Early Childhood Care and Education in Africa

- ▶ “Like every import into Africa, ECCE [Early Childhood Care and Education] has become actively imported rather than a homegrown set of relationships evolving from women’s family social services...human resources have to rely on international consultants, whose training seems to have blinded them to ethnocultural realities and developmental norms other than those of the Euro-American context” (Nsamenang, 2009, p. 47).

Middle Childhood

- ▶ Middle childhood is characterized by slower, but steady growth
- ▶ Development is characterized more by refinement than qualitative change
- ▶ Children transition from learning to read to reading to learn
 - ▶ If a child is not a fluent reader by Primary 3, they are unlikely to succeed in school

Middle Childhood Language Development

- ▶ Rate of vocabulary learning slows, but understanding of words are refined
- ▶ Students learn from 4,000 to 6,000 new vocabulary words each year (Anderson, 1996)
 - ▶ Both direct and indirect vocabulary instruction is valuable
 - ▶ **Direct instruction:** Define a word, use it in sentences
 - ▶ **Indirect instruction:** Listening, speaking, reading, and writing in authentic situations

Adolescence Physical Development

- ▶ Grow 3 to 6 inches a year for several years
- ▶ Brain spurt from 13-15 years, likely related to abstract thinking
- ▶ **Puberty:** Changes needed for reproductive maturity

Adolescence Cognitive Development

- ▶ Develop logical and abstract thinking abilities
- ▶ Learning from text (reading) improves



Adolescence Social Development

- ▶ **Peers:** Increase in number, increase in intimacy
- ▶ Both parents and peers have a strong influence on the prosocial and antisocial behavior of adolescents
- ▶ **Sensation-seeking:** A desire to experience increased levels of arousal



Adolescence Identity Development

- ▶ “With globalization adolescents increasingly have interactions with people from diverse cultures, either first-hand or indirectly through various media. Consequently, developing a cultural identity has become more complex—no longer a question of becoming an adult member of one culture but instead of figuring out how to navigate multiple cultures” (Jensen, 2011, p. 62-63)
- ▶ Adolescents “develop dual identities as a result of globalization...from growing up with not only one’s own cultural and ethnic heritage, but also global adolescent interests and culture, through music, television, movies, and the Internet” (Gibbons, 2013, p.24, as cited in Gardiner, 2018)
- ▶ **Socialization ambiguity:** Conflicting expectations regarding appropriate social behavior during socialization
 - ▶ This is a considerable source of stress for adolescents

