

PERENNIAL PROBLEM:

What to do about Nurturing Human Development

CONTINUING CONCERN:

Understanding Development

RELATED CONCERN:

Aspects of Human Development

DESIRED RESULTS FOR STUDENTS:

Students will understand how knowledge of all aspects of child development and the inter-relatedness of the various domains will enhance the well being of children and the care they receive.

LEARNER OUTCOMES:

1. Identify practical applications of developmental principles and domains, in the appropriate treatment of young children.
2. Understand that development is inter-related: something that affects one domain will likely affect other domains as well.
3. Investigate critical issues that affect the physical development of young children and understand what to expect in terms of “normal” development.
4. Examine ways to promote optimal cognitive development in young children.
5. Understand the lifelong process of acquiring social-emotional development and how families, schools, and communities can work together in the best interests of young children’s affective development.

SUPPORTING CONCEPTS:

- A. Developmental Principles and Domains
- B. Inter-relatedness of Domains
- C. Physical Domain
- D. Cognitive Domain
- E. Affective Domain (Social-emotional)

BACKGROUND INFORMATION:

Parenthood Education curriculum has always included aspects of development; indeed, it is the focus of most high school child development textbooks. It is crucial, however, that our students are able to answer the question, “Why do I have to learn this stuff?” As educators, we know that with a good, working knowledge of development, adults and caregivers treat children more appropriately and anticipate behaviors. When parents understand what to expect with the development of their children and treat them according to that knowledge, it leads to positive relationships within the family. Additionally, children’s development is enhanced and quality of life improves. It’s a never-ending cycle that gets its roots in a firm foundation of the knowledge of how a child develops.

A developmental principle is an established relationship between two or more factors. A theory, to which we refer often, is a set of inter-related concepts or integrated statements of principles which are used to make predictions or explain phenomena. Three general principles of development are:

- a. Development is a relatively orderly progression.
- b. Development is a gradual process, taking place over time.
- c. There is variability between individuals, as people progress at their own rates of development.

An understanding of these three principles can enhance a student's ability to think critically about why children might develop and behave as they do, treating them more appropriately as a result.

Three primary developmental domains are:

1. Physical (biological)
2. Cognitive (mental and intellectual)
3. Affective (social-emotional, intra- and interpersonal)

Development typically involves:

- Interaction within and across domains
- Physiological and socio-cultural influences
- Stable traits
- Dynamic states

Developmental processes are complex and functions rarely occur in isolation. Domains and their components overlap and are integrated in the whole child.

Because of the great detail that is part of each of the developmental domains, this related concern in the Parenthood Education Curriculum Guide is intended to introduce the issue of understanding development in order to have a working knowledge as our students interact effectively with children. It is critical to have a current, valid child developmental textbook in the course to supplement the information and activities here, as well as access to current, research-based media and readings for students.

DIRECTED ACTIVITIES:

Supporting Concept A: Developmental Principles and Domains

1. **"Development vs. Growth":** Ask students to consider the differences and similarities between the terms "growth" and "development." Development refers to the qualitative aspects of growth and is impacted greatly by the way we treat and work with children. Like growth, there are predictable patterns of development, and research over the years continues to help us understand how we as humans develop.
 - A. Have students create a visual or a poem that demonstrates their understanding of the terms "growth" and "development."
 - B. Provide students with the following characteristics of development (Brisbane, 2004):
 1. Development is similar for everyone. Children go through the same stages in about the same order.

2. Development builds on earlier learning. It follows a step-by-step sequence, where a child builds on those skills mastered earlier. Before learning to run, a child must learn to walk.
3. Development proceeds at an individual rate. Although all children follow a similar pattern of development, each child is unique.
4. The different areas of development are inter-related. Changes in many areas are taking place at the same time. A child may be learning to speak in full sentences at the same time she/he is learning to tie shoelaces.
5. Development is continuous throughout life. Rates change, but development is a lifelong process. Your grandparents are continuing to develop, although in different ways than you are right now.

C. Divide students into five groups, and have each group be responsible for one of the above characteristics, paraphrasing it for the rest of the class. Each group should identify one way that adults can enhance that characteristic and one obstacle from the environment/people that might hinder that characteristic. Groups can present this information verbally, graphically or through an active demonstration.

2. **“Heredity vs. Environment”**: Have students consider the factors that influence development: hereditary and environmental. Ask students to personalize this by tracing one of their hands on a blank sheet of paper. On each finger, they should place a label of anything they can think of that they have inherited from a parent (eye color, hair color, skin color, height, etc.) Once they have done this, have them go back and circle any of the labels that can be altered by the environment (for instance, can eye color be changed through contact lenses?). Are there hereditary influences that can't be changed? Discuss how heredity and environment are closely linked in human development and how, with continued research, we can affect many of our genetically-linked traits through environmental efforts. Use care in leading this discussion, to include the many points of view that may be represented by students in today's diverse classrooms.
3. **“Developmental Domains”**: Explain and draw on the board the three intersecting circles that illustrate the different developmental domains: physical (biological), cognitive (mental and intellectual), and affective (social-emotional). Divide students into three groups and give each group a different color of post-it notes from a pad. Each group should list as many aspects of their assigned domain as they can think of in five minutes; each on a separate note. For example, physical might include health, motor skills, nutrition; cognitive might include communication, memory, and problem solving; affective could suggest temperament, motivation, and attention span. Have them place their notes in the circle of the appropriate domain, as drawn earlier on the board. The class will return to this activity for further work in the next section, below.

Supporting Concept B: Inter-relatedness of Domains

4. **“Whole Child”**: Have each group from Activity #3, above, decide which of the aspects they assigned to their domain that they think are related to at least one of the other domains. For example, does communication, in the cognitive circle, also fit into the affective circle? Is it ever a part of the physical domain? One of the members from each group, after consulting with their team, should move their post-it note words from their original placement in the assigned domain, to the center where the three circles intersect (Venn diagram), in an area that the teacher has identified as “whole child.” Students discover in doing so that most, if not all, of the aspects they identified as being domain-specific, are indeed inter-related. Choose one person from each of the groups to report on a specific example of their own physical, cognitive, or affective development that is clearly inter-related (for example,

earning an “A” on a project might represent cognition, but could also result in increased self-esteem, in the affective domain.

For the next class session, ask students to bring an object to class that represents the inter-relatedness of their own development. It might be a photograph, an old report card, a piece of sports equipment, etc. During the next class session, have students share their objects with others in their original domain-assigned group.

5. **“Raising Cain”**: Using the DVD or video “Raising Cain,” have students view the chapters on early childhood issues with boys in our society. What are some examples of the inter-relatedness of the domains that are shown in the film? (For example, when the preschool boy wants to tell a story that includes death, which of the domains comes into play? What areas of development are enhanced through the Japanese system of older peers helping younger ones?)

TEACHER PREPARATION:

Use your child development textbook as an important resource in this area of development.

Supporting Concept C: Physical (biological) Domain

6. **“Brainstorm”**: Have the class brainstorm issues that are of concern to them when they think about the physical development of children.
 - Why are those issues important to them? Are there issues of physical development that are especially important to the families in their community? (For example, are families concerned about obesity rates in children/lack of places to exercise, etc?)
 - Have students browse through the physical development chapter(s) in their textbook. What other issues does the author of the book bring to light?
7. **“Milestones in Physical Development”**: Using charts and other graphic illustrations, present information to students on the continuum of physical development in young children, emphasizing fine and large motor skills. Resources in textbooks are often excellent in this area. Have students create a timeline with another student to illustrate milestones in physical development.
8. **“Baby Simulator Doll”**: If available at your school, have students work with baby simulator dolls to illustrate approximate size and characteristics of infants. As students use the dolls with instruction, they begin to understand related care concepts, such as supporting an infant’s neck, etc. Resources to assist in demonstrating physical care of infants are available from the manufacturer.
9. **“Guest Panel”**: Using community resources, ask a panel of parents, caregivers, medical professionals, etc. to speak with the class about the nutritional needs of young children and how to best meet those needs.

Have students prepared to ask questions and take notes on:

- The ideal foods at different stages of early childhood.
- Breast vs. bottle feeding for infants.
- The nutrition/eating habits of young children in the community.

- Resources available to parents and caregivers in the community to help them provide nutritious food for the children in their care.
10. **“Five a Day”**: Using the most current resources from the U.S. Department of Agriculture and the Center for Disease Control, have pairs of students develop a weekly feeding plan/menu for children that emphasizes the “5 a Day” concept of ensuring five fruits and vegetables each day. Bring in some samples for students to try of fruits and vegetables served in attractive and appetizing forms for young children. Have groups of students create bookmarks for parents, which are lists of healthy fruits, vegetables, protein sources, and complex carbohydrates, to be used as a shopping list.
11. **“Toy Selection”**: Have students each bring a toy to class for the purpose of discussing aids to physical development. Have a collection in your classroom that can supplement what is brought from homes.
- Have students consider what benefits to physical development might be derived from each toy.
 - What toys are available to children that might actually be an obstacle to large or fine motor skills?
 - If your school has an onsite child development center, have students walk through the areas designated for large motor skills. If there is none at your school arrange to visit a nearby elementary or child care facility. What amounts of space and kinds of equipment are best for helping children develop their large motor skills?

Supporting Concept D: Cognitive (Mental, Intellectual) Domain

11. **“Brain Function”**: Introduce the workings of the human brain by guiding students through the short activities in the exercise, “Revealing the Workings, the Wonder of the Human Brain,” found in chapter 1 of the Sourcebook for Brain Science (2006) found at www.Dana.org (Dana Corporation). At the end of the activity, which takes about 10 minutes, students will have engaged many parts of their brain, almost without realizing it.
12. **“The Secret Life of the Brain”**: Show clips from the video series, “The Secret Life of the Brain,” available through Public Broadcasting Services. Of particular use is the first 15 minutes of the first tape on “The Baby’s Brain” which illustrates growth of neurons and dendrites, and explains how a baby’s brain develops, and how cognitive functions appear and are affected by both nature and nurture.
13. **“Cognitive Development Activities”**: Introduce students, through your textbook or other resources (many online ones are available) to the work that Piaget and Vygotsky have done on cognitive development. If possible, invite parents and kindergarten children to help illustrate the following concepts of these theorists to the students. (You may wish to have your students do these activities first, and then compare their responses to those of the young children, to compare and contrast cognitive growth stages):
- Seriation*: Use 5 to 10 sticks or strips of paper that vary in length from 1 to 10 inches. Begin by asking the children to place 3 sticks in order, then 5 sticks, and add 2 more sticks until the child is unable to perform the task. Be sure to mix up the sticks each time and record the child’s responses.
 - Conservation of number*: Use 12 coins of the same denomination (all pennies or dimes). Place 6 coins in one row about a half inch apart, and place the other 6 coins below the first row. Ask children if the number of coins in each row is the same or different, and then ask, “How do you know?” Next, spread out the coins

in the first row so that each coin is several inches from the others. Ask the children again if the number of coins in each row is the same or different. Ask again, "how do you know?" and record their responses.

- c. *Multiple Classification*: Cut out geometric shapes (triangles, squares, and circles) from red, blue, and yellow construction paper (three colors per shape). Ask the children to sort the cutouts that go together into different piles. Record how the children sort the cutouts. Now, ask the children if there is another way the cutouts can be sorted and record how they do on the second sort.
- d. *Scaffolding*: Observe two or three small groups of children working on a common task. Record the way in which the children help one another to perform the task. After completing their observations, have students answer the following questions:
 1. Did you see evidence of the children directing, monitoring, or assisting one another?
 2. How did the children negotiate roles? Did one child assume responsibility for leading the activity?
 3. Did you see evidence of scaffolding by the children or the teacher? If so, describe some examples of this scaffolding.
 4. How did this activity help you to understand Vygotsky's concept of the zone of proximal development?

14. "Sensori-motor/Pre-operational Stages of Early Childhood": Assist students in understanding the growth of cognition according to Piaget's theory, during the sensori-motor and pre-operational stages of early childhood. Focus on the acquisition of goal-directed behavior and object permanence in the sensori-motor stage. Demonstrate these concepts or enlist the help of several students to demonstrate these. For the pre-operational stage, focus on the emergence of representational thinking (symbolic) as well as deferred imitation (the ability to repeat a simple sequence of actions or sounds several hours or days after they were originally produced.) Have students consider how the acquisition of these aspects of cognitive development assist in future learning. What might contribute to situations where these stages were not met? What might be the long term consequences of hindering these stages?

15. "Fantasy Play": If students are or will be working with preschool aged children in your preschool or onsite Child Development Center, address the value of fantasy play as it relates to the acquisition of cognitive skills.

- What props are important for children as they engage in fantasy play?
- Why is this type of play not always valued by adults?

Several resources to assist with this include the work of Dorothy and Jerome Singer; "Imagination and Play in the Electronic Age" (2005) and Vivian Paley's "The Child's Work: The Importance of Fantasy Play" (2004). At this time, showing clips from the DVD "Raising Cain" again can be helpful to illustrate the importance of fantasy play in the lives of boys and the understanding that superhero play is not connected to violent behavior in later development.

16. "Group Activity": In pairs, have students create a brochure or write a letter to parents, identifying ways to enhance cognitive development during the sensori-motor and pre-operational stages of early childhood.

Supporting Concept E: Affective Domain (social-emotional, intra- and interpersonal)

17. **“Erik Erikson’s Developmental Stages”**: Using Erik Erikson’s developmental stages (“Eight Stages of Man”) introduce students to the stages of social-emotional development as found in *Childhood and Society*. Focus on those stages that apply to the age groups of children they are working with and studying. Resources could include a textbook, the original source, and web based sources. Divide students into small groups of 2 to 3 each to develop a graphic organizer on one of Erikson’s first five stages (birth through adolescence) to help their classmates better understand that stage. Use the following guidelines for their work:

- Name of stage, and ages when children are expected to be in that stage.
- Developmental tasks that need to be accomplished during that stage, in order for the child to progress to the next one.
- Ways that parents/caregivers/families/communities can contribute to a child achieving the tasks of that stage.
- Obstacles in the environment or in ways children are treated that will hinder the acquisition of those developmental tasks

As groups present their information to the class use the following questions for discussion:

- What aspects of the school’s on-site child development center contribute to the tasks of developing trust, autonomy, initiative, industry, and identity development?
- What does your high school do to encourage the development of identity in its student body?
- What support comes from your community for each of the tasks?

18. **“Children’s Books”**: Using a collection of children’s books, with themes that address emotions, have students identify the particular emotional issue (shyness, friends, sharing, fears, etc.) that are in the book or story. Students should evaluate the story according to what they know about these stages of affective growth in children. Is this a story that will enhance that aspect of development? Why or why not?

As an extension, have students write their own developmentally appropriate short stories for preschoolers, to assist with social-emotional development.

19. **“Observation”**: Using the observation form (SM-1), have each student select one or two children from the Child Development Center to observe and complete the assignment.

Remind students to avoid labeling children as a result of the observations but considering their findings think about ways to increase bonding between the child and their teachers.

- What children seem to need additional help in developing the social-emotional skills that are appropriate for their age?
- What can teachers/adults/parents do to encourage appropriate bids for attention and responses by children?
- How might attention to this aspect of a child’s development assist them with other types of development in the future?

20. **“Gender/Cultural Differences”**: Using clips from the video, “Raising Cain,” have students observe several situations that describe differences in gender expectations and expressions of emotion, as well as cultural differences (both sections on young boys illustrate this well).

With development, children become better interpreters of other’s emotions and better able to use this information in regulating their own behavior. They also become better able to

express and understand the self-conscious behaviors of shame, embarrassment, guilt, envy, and jealousy. Gender and cultural expectations can influence what emotions are expressed and how they are expressed.

Discuss how the child development setting in your school promotes developmentally appropriate emotional well being that is gender and cultural sensitive.

RESOURCES:

Books:

Brisbane, H.E. (2004) *The Developing Child*. New York: Glencoe Publishing

Meece, J. L. (2007) *Child and Adolescent Development for Educators*. New York: McGraw Hill Publishing

Other Resources:

Thompson, Michael, Ph.D., (2006) *Raising Cain*. Powderhouse Productions, in association with Oregon Public Broadcasting.

Center for Disease Control and Prevention: www.cdc.gov

United States Department of Agriculture: www.usda.gov

Realityworks, Inc. (2007) "Baby Think it Over" *Infant Simulators*. www.realityworks.com

Oregon Public Broadcasting. (2001) "The Secret Life of the Brain" OPB store, www.opb.org

Dana Foundation. (2005) "Revealing the Workings, the Wonder of the Human Brain" www.Dana.org

OBSERVATION

Name and age of child observed: _____

Record the behavior of the child you are observing whenever he/she initiates an interaction with the teacher or receives comment or direction from the teacher. Use the following categories to characterize behavior and the affective tone of the response. Describe in detail at least five interactions, responses, and tone of response.

Ways of Getting Attention (initiated by the child)

Touch: Touches shoulder, clothing
 Name: Calls name
 Talks: Makes a statement (i.e. "I had eggs for breakfast")
 Position: Places object or self near a person (too near to be ignored)
 Requests: Asks for help or assistance or attention
 Demands: Demands attention loudly and assertively
 Disrupts: Behaves in a manner to disrupt ongoing activity
 Other: For example, raises hand

Responses to the Attention Observed

Immediate: Responds within a few seconds
 Delay: Responds later (estimate time)
 Ignores: Does not respond

Affective Tone of Response

Positive: Response characterized by warmth and respect (e.g. smiles)
 Neutral: Response appears neither positive or negative
 Negative: Response characterized by negative tone (e.g. anger, crying, aloofness, or disrespect)