Introduction

The second module of the training course for paraeducators who are working in educational settings in North Dakota schools is entitled *Human Growth and Development and the Impact of Disabilities*. The primary emphasis of this module is to provide paraeducators with an understanding of the flow and patterns of development in infants, toddlers, children, adolescents and adults.

Module 2 is organized into three sections:

Section One – Principles of Human Development
Section Two – Developmental Stages and Patterns
Section Three – Factors that Impede Human Development

Each section will be followed by a series of short self-assessment questions designed to reinforce content. Paraeducators are encouraged to complete the self-assessment questions for their own benefit.

Acknow-ledgement

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SECTION ONE

Terms Used in The Study of Human Development

Cognitive Development. The process of acquiring knowledge and information as a person interacts with the environment and culture. Cognitive development depends on growth inside the person (such as the development of curiosity and the desire to learn, as well as the impact of the outside environment).

Communication. The transmission of messages from one person to another. It may be accomplished in a variety of ways including eye contact, posture, facial expressions, gestures, writing, and speech.

Development. The growth of the person in predictable patterns.

Developmental Delay. A term used to describe an observed difference in a person's actual growth and behavior, and the typical growth and behavior expected of people of the same age.

Emotional Development The process in which the person acquires feelings about herself or himself and other people.

Physical Growth. A term used to refer to an increase in size, height, weight, knowledge, and skills.

Human Development. A term used to refer to the study of a series of patterned and predictable changes that occur as a person grows and learns how to interact with the environment.

Language. The organized system of symbols people in various societies use to communicate with one another. These symbols may be spoken, written, or gestured.

Learning. The acquisition of knowledge and skills as children and youth interact with their environments, teachers and caregivers. Learning is both receptive and expressive. Receptive learning is under the control of the learners who "take in" or assimilate information about their environments

and experiences. Expressive language is strongly tied to reinforcement provided by the learner's environment. For example, a person may know the concept – but not use the word unless their environment encourages the use.

Maturation. The growth of a person from within; the process of acquiring cognitive, social, emotional and language skills that increase with age.

Normal/Typical. Averages or standards against which the behavior or development of a person is compared.

Physical/Motor Development. The sequence or rate at which a person acquires motor skills and learns to control his or her body. It is characterized by changes seen in the external body and by unseen internal changes in the organs, muscles, blood, bones and nervous system.

Social Development. The general process by which a person acquires the beliefs, skills, values, behavior patterns and other characteristics considered necessary for interacting with others in a particular society/culture.

Speech. Speech is the organized production of sounds to form words and word groups.

Principles of Human Development

Introduction

In a training program for personnel working with children and youth with disabilities, paraeducators might wonder why they should learn about "normal" human development. Wouldn't it be enough just to hear about children and youth with disabilities and the factors that cause them and their families to require individualized education programs and services? In fact, wouldn't it be more useful and wouldn't it save time?

Expectations for all children – to live and participate fully in the life of the community.

The fact is that children and youth with disabilities have more in common with their chronological age peers without disabilities than they have differences. In most ways their behavior and patterns of development conform with the behavior and patterns of development of children and youth described as typical or "normal". They have the same physical needs, interests, joys, fears and sorrows. Frequently the instructional interventions are the same for all children – disabled or not. And our expectations for children and youth with disabilities or for those who are at risk for other reasons should be similar to our expectations for all children: to grow and to develop to their maximum potential and to live and participate fully in the life of the community.

All infants, toddlers, young children, teenagers, and adults are individuals with many traits and characteristics that make them unique. The question invariably arises; if children and youth are so distinct how can there be patterns of "normal" development? The answer is that although they do develop in a unique way at their own pace, they also pass through certain predictable stages. Indeed, all people grow and develop in patterns and stages that may vary in the length of time required to complete each sequence, but the patterns are predictable from one person to another.

How children, youth, and adults develop and move from one stage of life to another has fascinated humankind since recorded time began. How do infants unable to communicate become teenagers who spend most of their waking hours on the phone with their friends?

How do babies unable to crawl or walk become adults who jog and run marathons? Myths and folklore exist in all cultures to explain physical, cognitive, social and emotional development, and in most, rituals mark the rites of passage from childhood to adulthood.

Over the years, several theories about development have evolved. Jean Piaget focused on how children develop cognitively. Erik Erikson centered on the stages of social and emotional development in children and adults.

Stages of Development

The observation of infants, young children and youth forcefully demonstrate that everyone passes through predictable stages in several areas including: cognitive, physical/sensory, social/emotional and language development. Because development is regular, (patterned and predictable) it is referred to as “normal” or typical. When children deviate significantly from these “norms” they may require special services and individualized education programs.

Determining a child’s level of development is important so the child can be assisted to reach the next step.

Development is a step by step process. For example, learning to walk may involve as many as fifteen components, beginning with pulling to a standing position and ending with walking without holding on. Most children progress through each step rather than skipping from step 1 to step 15. Because of these sequential patterns, determining a child or youth’s level of development is important so the child or youth can be assisted to reach the next step. The terms “stages of development” and “characteristics of certain ages” are general. But to say the “average” four year old does certain things does not mean that every four year old acts in that manner.

Individual development in physical, cognitive and social/emotional areas does not necessarily proceed evenly. One child (or adult) may be at a different chronological age for each area. It is likely, however, that the child who has accelerated in one area will be advanced in other areas as well. Also the child who is delayed in one area often is delayed in other areas as well. An obvious exception is a person who has a physical disability who might, therefore, be delayed in acquiring physical skills but is not delayed in other areas.

A second important concept is that development generally proceeds from the concrete and simple to the abstract and complex. For example, in cognitive development children first become aware of people, objects, or events. After that they progress to logical thinking and are able to sort things into certain categories and classes. The next step in the sequence is problem solving and developing rules and guidelines for coping with the environment and society in general.

The acquisition of language is unique to humans. Language fills important functions for us: it provides us with a means to communicate and socialize; it enables us to transmit culture from generation to generation; and it becomes a vehicle for thought. A baby, regardless of where he or she is born, is capable of producing every sound used in all languages on the earth. The infant's babbling encourages older persons to talk to the child, thereby teaching the infant the sounds used in the home environment. By six months of age, the sounds the child makes will be only those that he or she hears, and all other sounds are not made or practiced. In this way, all humans learn to speak the language and the dialect that is spoken in the home where they are raised. It is also important to note that a child will understand language before he or she speaks it. Those children with difficulties in the areas of speech and language, or those with hearing impairments will in most cases have delayed development in language acquisition and usage.

Stages of development follow patterns.

The stages of development will follow patterns that are based on basic principles typical of all people, whether they have disabilities or not. These principles state that:

- Development in all people is similar. While every person is unique, development occurs in sequences that are predictable. For example, all babies sit alone before they walk.
- Development is an orderly process with stages (patterns) that can be predicted. Knowing the predictable sequences of behavior helps in recognizing typical (normal), delayed or accelerated patterns of behavioral change and growth and enables parents and educators to develop individualized programs.

- Development proceeds from the general to the specific. For example, infants move their entire arm in a random manner before they can control it to pick up a toy.
- Development proceeds from the upper portions of the body toward the lower portions – from head to toe. This "cephalocaudal" development means that children gain control of their head and neck movements before they are ready to sit alone.
- Development proceeds from the center of the body to the outer body parts. The "proximaldistal" development means that children can hold a ball before they can tie their shoes.
- Development proceeds at different rates. In a person's developmental sequence, there are periods of accelerated growth and gradual growth. From birth to age five, a child's development is characterized by rapid physical and cognitive growth; from ages five to eleven, physical development slows down; during adolescence, there is rapid physical growth again.
- Development can proceed at different rates within an individual person. For example, a person may have delayed cognitive and language development and typical physical development.
- Physical, cognitive, social and emotional development are interrelated and affected by the interaction of heredity and environment. For example, a person with intellectual disability may develop at different rates depending on whether or not he or she is raised in an institution, or at home with access to early family intervention and education services.

Human development has an extremely close relationship with the educational field. In order to provide instruction at the appropriate level, the educational field has developed objectives based on the developmental stages of the students in accordance to their chronological ages. While all individuals are unique, education has grouped students in classes based on age. However, educational psychologists have conducted research and developed theories on development that have aided educators in developing appropriate instruction.

Jean Piaget's Theory of Development

Piaget's research and findings are concerned with matters of intelligence, thinking, logic, language and competence or efficiency. His approach views people as naturally active, seeking, adapting beings who learn through continual actions, which they initiate within their environment. According to Piaget, children are born with a set of sensorimotor operations/movements to perform upon their environment in order to "know" it and themselves. As a result of these transactions and physiological maturation, the original sensorimtor operations are:

1. built into increasingly more complex patterns,
2. internalized so they can be carried out mentally, and
3. tied to language symbols.

Information is "filed" in a child's memory.

Piaget felt that as we progress through our lives we develop a sophisticated filing system to organize our perceptions of the world. The information children take in is placed in **schemas,** files within the memory. As new information comes in, students attempt to understand it through two different methods. If the information coming in is similar to other information that the student has experienced in the past, he or she will file it within the schema that contains the similar information or **assimilate** the information. When children are young they will often misfile information based on certain characteristics. For example, infants may call all adult men with glasses and a beard "Daddy", based on their schema of what Daddy is. Another example is when toddlers call all four legged, small animals, puppy. These children will be corrected by adults in their environment which may require them to readjust where they file information for it to make sense to them.

In certain circumstances, information is received by an individual that does not fit into any existing schema. **Accommodation** of the information can be accomplished by either altering an existing schema, or developing a new one to organize the information in order for the individual to make sense of it. Most of the schemas in a person's memory are in place at an early age.

When new information is presented to students, they are constantly in a state of **disequilibrium**, or confusion due to the novel nature of the information. As students assimilate or accommodate information into existing or new schemas, the individual reaches **equilibrium** or understanding. This is the basis of learning according to Piagetian theory. We go through this pattern on a continuous basis many times each day.

Most individuals are able, with help from others in the environment, to make this system work for them to organize incoming information. Other individuals may have difficulty with the process and either misfile information or are unable to retrieve it for usage on a consistent basis.

For Piaget, mature behavior is the ability to reason and think critically, in objective (unprejudiced), abstract (theoretical), and hypothetical terms. When youths or adults reach this level, Piaget regards them as being at the peak of their developmental pyramid. Piaget summarized that each person progresses through four distinct stages of intellectual development. They are:

Ages Birth through 2

Sensorimotor: During the first two years of life, children receive information from their environment primarily through the senses and a multitude of physical motor explorations. The explorations provide information about ways to cope with different situations and the effect of behavior on the environment. For example, an infant learns if he or she cries when he or she is hungry, he or she will be fed; he or she learns if he or she smiles, he or she will get a response from another person. During this time the infant attains certain abilities including:

Object permanence is the understanding that things continue to exist even when they are out of sight (when the puppy goes behind the couch it will reappear eventually);

Invariance despite change is the identification of objects and people remaining the same even in different situations or circumstances (mother or father will still be the same after they take off their Halloween costumes); and

Means – end is when certain acts result in reliable effects on the environment (if you touch something hot, you will get burned).

Ages 3 through 7

Preoperational: From three to seven years of age children begin to expand their ability to think. This stage is divided into two substages:

Preconceptual. During the third and fourth years of life, children are constantly investigating their environment. Children in this period usually see themselves as the center of their environment. Children who have learned the label, “dog”, may initially label all four-legged animals “dog”; they gradually learn other appropriate labels for the animals, (e.g., cat, cow, pig).

Intuitive. During the ages four to seven, children begin to develop increased interest in their social world and demonstrate an ability to give reasons for their beliefs and actions. Their broader social interactions and their growing ability to use words effectively are important factors in contributing to their growth. For example, it is difficult for children under four years of age to take turns; they need to learn to experience “it’s mine” before they can say “I want to share it with you.” As children move into the intuitive period, they are able to share and take turns with others. They also learn to play cooperatively with other children; for example, two children, after listening to a story about firemen, may decide to build a fire station in the back corner. During this period of development, thought is dominated by what is seen. The child is not able to attend to more than one thing at a time where space, time, volume, shape, and weight are concerned. Language development is very rapid.

Ages 7 through 11

Concrete Operations: From the ages of seven to eleven, children become capable of mentally seeing an object or event in a total system of interrelated parts; they understand that a ball of clay contains about the same amount of clay regardless of whether it is formed into a circle or a rectangle. They are also able to think about what happens to concrete objects without having to experiment with the object. For example, they recognize that a glass of water in a tall, thin glass seems to hold the same amount of water as a glass of water in a short, fat glass, even though the containers have different shapes. During this stage of development logic and objectivity progressively characterize thought. The child can reason, but only when using concrete objects. The child learns multiple classifications and conservation (the preservation of physical quantity during changes); he or she learns equivalence, reversibility, and seriation (the ability to put objects in order).

Ages 12 through Adult

Formal Operations: By the time children reach the age of twelve, their cognitive development is characterized by thinking and reasoning. They can think about issues and ideas, they can form opinions about abstract concepts like love, right and wrong; they can understand the term “a million dollars” which must be thought of in abstract terms. Mental development is usually complete by the end of this period, around fifteen years of age. During this stage of development, young people are able to formulate and execute symbolic plans of action based on hypothetical events, and can simultaneously consider more than one variable in the solution of a problem. They are also able to imagine potential relations among objects or events. However, some people with or without disabilities may never reach this stage.

The ages that are associated with these stages are meant to be estimates. In fact Piaget didn’t even assign the ages; others who followed in his footsteps did. The ages and competencies associated with the stages are based on the average. Individuals with and without disabilities will, in some areas, be delayed. This is a key concept in developing individual education programs for students and especially in carrying out these programs. For successful outcomes to occur we need to take into account the developmental level of the individual.

As members of educational teams it is also important to keep in mind the student's chronological age when working with the student; even if the evaluation process indicates that the student has a lower mental age, (age at which the test indicates he or she is cognitively functioning), we need to be certain that the educational program is geared towards skills and training at his chronological age. This will also aid in social integration and peer group involvement of the student.

If a student has an orthopedic or sensory disability, those skills in the sensorimotor period which are needed in order to progress to the succeeding stages may be delayed and may negatively affect the rate of future development. This does not always occur but it is important to keep in mind when working with students who have orthopedic or sensory disabilities.

Erik Erikson's Theory of Social Development

Another area that has been researched for educational purposes is that of social development. Erik Erikson developed a theory of social development in children and adults. It focuses on how people see themselves and on their interactions with others. Erikson believed that social/emotional growth parallels physical growth. He described social/emotional development using a series of eight stages that extend from birth to death, with each stage building on the preceding one. The last three stages encompass the adult years. The stages are outlined in the following chart.

Stage	Age Level	Characteristics
Trust vs. Mistrust	0-18 months	The ability of the infant to develop a sense of basic trust is the foundation of all personality development. The physical needs of infants must be met. As a result, a strong emotional bond is formed with the major caregiver, usually the mother. As an infant's need for food, warmth and attention are met by a major caregiver, they develop a sense of trusting people in their environment that prepares them to accept new experiences.

Stage	Age Level	Characteristics
Autonomy vs. Shame and Guilt	18 months-3 years	As children test motor skills, (e.g., walking, running) they develop a growing sense of independence along with the ability to accept help and guidance from others. Attempts at independence may show up as tantrums or stubbornness. For example, a two-year-old may shout, “No!” to the question, “Do you want to go outside?” When in reality he or she really does want to play outdoors. This stage is often illustrated by a child becoming toilet trained, thus developing a sense of autonomy.
Initiative vs. Guilt	3-6 years	Children become aware of their environment. They learn to broaden skills through the increasing use of imagination and fantasy. They begin to satisfy their natural feeling of curiosity. For example, children are interested in talking with new people and visiting new places.
Industry vs. Inferiority	6-11 years	During this stage children begin to learn the values and skills of the environment. At school, they are expected to acquire the formal skills of reading, writing, math, and getting along with peers. They learn self-discipline to do homework. They learn to be industrious and are ready to try out new skills.
Identity vs. Confusion	12 years–early adult-hood	Children are concerned with how they appear in the eyes of peers as well as finding out “who I am”. The person develops specific skills and talents as well as meaningful goals and beliefs. As adolescents move toward finding their identity they may seem “rebellious” to the family. Actually, it is normal progress.
Intimacy vs. Isolation	Adult-hood	Young adults begin to form meaningful relationships with other adults. Through sharing, the individuals learn the joy of intimacy and exploring life together, and may decide to have children.
Genera-tively vs. Stagna-tion	Adult-hood	The adult continues to grow and develop socially. He or she is an active member of society and learns to contribute to other members of society. More and more couples are having children during these years rather than when they are younger.
Integrity vs. Despair	Adult-hood	The mature adult has experienced the preceding stages. Some people look back on their lives with satisfaction. Others are discontented. The resolution of this stage has a great deal to do with the individual’s satisfaction with life as a whole.

Again, these stages may be delayed by certain aspects in a person's life, whether they are disabled or not. With progression through the stages dependent on success at the previous levels, those students with motor skills problems, emotional difficulties, etc. may experience difficulty in proceeding through these stages at a normal rate of development.

(Please cover the answers)

Section One:
Principles of Human Development

Self-Assessment Questions

similar

1. Development in all people is _____.

stages

2. Development is an orderly process with _____ that can be predicted.

specific

3. Development proceeds from general to _____.

head-to-toe

4. Development proceeds from upper portions of the body toward lower portions - _____.

heredity and environment

5. Physical, cognitive, social and emotional development are interrelated and affected by the interaction of _____ and _____.

Piaget's

6. _____ research and finds are concerned with matters of intelligence, thinking, logic, language and competence or efficiency.

7. Piaget summarized that each person progresses through four distinct stages of intellectual development. List the four stages below.

Sensorimotor (Ages 0-2)

a. _____

Preoperationsal Ages (3-7)

b. _____

Concrete Operations (Ages 7-11)

c. _____

Formal Operations (Ages 12-Adult)

d. _____

social development

8. Erik Erikson developed a theory of _____ _____ in children and adults.

SECTION TWO

Developmental Stages and Patterns of Behavior

This section gives a brief description of developmental stages and patterns of behavior.

The Age of Dependence Birth to 24 Months

This is the stage of greatest growth in children. They go from being dependent on parents for food, movement, and stimulation to being able to control these things themselves. By the end of this age, they can walk and climb alone; tell caregivers what they want for food themselves; and entertain themselves for short periods of time. This is a time of self-centeredness (egocentric behavior) and increasing independence. Children of this age are not selfish, rather they can only see the world from their own view point. The world is what they can do to it. The world is action and making things happen.

The skills developed during this time are the foundation for all later development. The skills learned can be divided into three broad categories. These categories are interactions, communication and self-help. The skills mentioned may be delayed in accordance with the severity (and the age of onset) of a disabling condition.

Interactions - Birth to 24 months. Interactions include all the skills children need in order to know how to act with family, friends and other people. Included are skills related to how to use toys and other objects in the environment. If children learn these skills they can play appropriately alone as well as with others. Children need to use these skills at home, in school and in a wide variety of other places (e.g., grandma's house, the playground, the grocery store and the babysitter's house). The skills that help determine how children are able to interact are: fine motor (e.g., using the small muscles to grip a toy), gross motor (using the large muscle groups to run or throw), communication, cognitive (thinking and understanding skills), and social skills.

Communications - Birth to 24 months. Communication includes all the skills necessary for children to understand the language used by the people around them as well as the skills necessary for children to use language themselves. Included are skills that are needed for talking and also for signing or using a picture communication system for those with speech and language difficulties. Other skills involved in the area of communication are cognitive, interaction and motor areas of development. Sometimes a child will talk more in some situations than others. For example, many children will use more language at home than in other settings. Often children will “clam up” around strangers or when requested to show that they know a word or phrase. Because of the difficulty in getting children to use their language skills in new environments, input from parents, babysitters, grandparents, etc., as to what the child really can do is very important.

Self-Help - Birth to 24 months. Self-help includes the skills necessary for children to feed, dress and bathe themselves. They are the skills that decrease a child’s dependence on parents and caregivers and decrease the amount of time required for physical caregiving.

Professionals sometimes refer to this as the “burden of care” because of how tiring performing these activities can be for parents. Skills from the gross motor, fine motor and cognitive areas are all involved in performing self-help activities.

Age of Exploring 24 to 36 Months

This age is one of many changes for a child. Children at the beginning (24 months) are very different when compared to the end of this age (36 months). It is a time for practicing skills that a child has learned earlier and to become more “grown up”. They are now learning when and where to use these skills. Children continue to need help from their family, neighbors, and environment to learn how to use these new skills to interact and communicate in more complex ways. They may seem like babies at some times and more like independent children at other times. For example, they may want help from others to wash their hands or play a game and twenty minutes later they want no help to do these same tasks. Sometimes, this makes understanding what a child wants very difficult for care-givers. By the end of this stage,

however, the child has mastered many more skills and language, so that they become a talker and explainer as well as a doer. Children accomplish these skills through interaction, communication and self-help experiences.

Interactions – 24 to 36 months. Interactions include skills needed for a child to know how to act with other children, family and other familiar and unfamiliar adults. Children also learn how to use objects, materials, and toys in their environment. This includes a child knowing what to do when they are alone, so that they can play by themselves. Children learn how to begin interactions and how to respond to others once the interactions begin. There will be times when these interactions are quiet activities such as reading a book, playing with trucks and cars, or drawing a picture with crayons. There will be other times when these interactions are very active, like running and screaming, climbing on the furniture and jumping off the furniture or riding a bike. Children will spend more time in active play at the beginning of this age (24 months).

Communications – 24 to 36 months. The skills in this area include those involved in talking, signing, and/or using a picture communication system for those individuals with speech difficulties, and understanding what is meant when adults and peers talk with the child. The skills in these systems include the cognitive, interaction and motor areas of development. During the two to three year age range, children may not be learning a lot of new words, but they are putting together the words they know and making longer and more complicated sentences. Sentences are longer and more complicated from the perspective of what they say, and children understand longer and more complicated sentences that are said to them. Children of this age are beginning to use their communication system to be as independent as their motor system allows them to be.

Self-Help – 24 to 36 months. The skills in this area include feeding, dressing, bathrooming, and bathing. These routines include component skills of gross motor, fine motor, communication, cognition, and interaction. Two to three year old children are learning how to use these skills to finish each routine, but sometimes they want to play during these routines. They want to do them at their own pace and they want to

make the choice of when, and how, to do each routine. Many times they use their skills during these routines to be independent from what others around them want them to do. They want to experiment and try combinations of new skills during these routines, such as drinking their juice by dipping it with a spoon from their glass.

Pre-School Children Ages 3-5

Physical Development - Ages 3-5. During this period of time the rate of physical growth begins to slow down. Children begin to play with toys that can be manipulated, for example: they enjoy playing with clay, driving nails and pegs, and building towers using small blocks. They can walk on a line, hop on one foot, and ride and steer a tricycle.

Social, Emotional And Cognitive Development - Ages 3-5. In Piagetian terms children in this age range are “preoperational”. They always seem to be on the go, exploring and learning about their world.

At the same time they are seeking independence, they are also forming strong attachments with caregivers and require a great deal of attention and support from adults. Their attention spans are short and they can be easily diverted.

Children in this stage learn by observing adults and their peers. While they are self-centered, children between the ages of three and five also need companionship and to be able to play with children the same age. They begin to learn to take turns and share, and they move from parallel play (e.g., three children playing with blocks but not interacting with one another) to cooperative play (three children working together to build a tower with the blocks). They are interested in talking to new people and visiting new places. And they begin to expand skills through the increasing use of imaginative play and the use of other methods for satisfying their curiosity.

Early Elementary Children Ages 5-8

Physical Development - Ages 5-8. The rate of growth continues to be relatively slow, providing children with an opportunity to develop greater coordination in both gross and fine motor areas. They learn to skip, skate, ride two-wheel bikes, walk balance beams, grasp a pencil in an adult manner, move beyond cutting straight lines to cutting out simple shapes and the use of the predominant hand for writing and throwing is established.

Social, Emotional Development - Ages 5-8. While children are learning to get along well with their peers, they are also sensitive to being left out, ridicule, and criticism. Developing rules, following and playing by the rules becomes very important. They begin to understand the values of their cultural environment. And they like to try out the skills they are learning in many settings. The children in this age group identify strongly with their teachers and other adults. Encouragement, recognition, praise and adult support are very important. They also need time to adjust to new experiences and situations.

Cognitive Development - Ages 5-8. In school, children ages five to eight are learning basic academic skills – reading, writing and mathematics. They are interested in learning how and why things move or work. Their attention spans remain short. And they need time to practice what they are learning.

Late Childhood/ Pre-Adolescence Ages 8-11

Physical Development - Ages 8-11. This stage of development is sometimes referred to as Pubescence. It is an overlapping period because it includes the closing years of childhood and the beginning years of adolescence. It is marked by slow and steady growth. Both girls and boys need opportunities to improve the coordination of their large and small muscles and they require plenty of sleep and well balanced meals.

Social, Emotional Development - Ages 8-11. Children in this age range are enthusiastic about almost everything. They are imaginative and like to explore. Peer group approval becomes increasingly important. They are interested in organized games and competitive activities. They are frequently socially insecure; and they value secure, supportive relationships with adults.

Cognitive Development - Ages 8-11. At this stage of their development, children enjoy talking, and expressing abstract ideas. They like to experiment and solve problems and are eager to acquire new skills. Language usage is influenced by their peers and they are oriented to shared interests among peers.

Adolescence

Physical Development - Ages 12 to Adult. “Adolescence” is derived from the Latin verb that means to grow into maturity. It is the period of change in a person’s life that signifies transition from childhood to adulthood. It is characterized by rapid growth and marked changes in body proportions. Changes may begin and end any time between the ages of 6 and 19. Primary sex characteristics develop, and in girls reproductive organs mature. Secondary sex characteristics including marked changes in the voice, breast development in girls, development of underarm, facial and pubic hair begins in early adolescence; chest hair does not appear until late adolescence. Rapid growth and body changes are likely to be accompanied by periods of fatigue. Acne may develop, and both girls and boys may experience periodic headaches and backaches.

Social, Emotional Development - Ages 12 to Adult. There is a definite relationship between physical development and the ways adolescents perceive themselves. It is not uncommon for many adolescents to experience feelings of self-consciousness, shyness and insecurity because of the sexual changes taking place. Adolescent emotions are often intense, uncontrolled and seemingly irrational. Throughout adolescence, emotional maturity grows as individuals develop more self-control over their emotional responses. During this period the peer group influences young people more than any other factor. They are still dependent on their family but try to achieve independence and autonomy. As the dependence on home lessens, security is found among friends who share the same values and attitudes.

Cognitive Development - Ages 12 to Adult. Cognitively, adolescents are able to shift from concrete to abstract thinking. They develop the ability to test tentative hypotheses against available evidence. Moral development matures during adolescence, young people begin to define their own moral principles rather than accepting those of their parents without question. Adolescents begin to develop specific skills and talents and start to set goals for themselves.

(Please cover the answers.)

Section Two:
Developmental Stages and Patterns

Self-Assessment Questions

(Match the developmental stages with the patterns of behavior)

(A) Age of dependence – birth to 24 months
(B) Age of exploring – 24 to 36 months
(C) Preschool children – ages 3 to 5
(D) Early elementary children – ages 5 to 8
(E) Late childhood pre-adolescent – ages 8 to 11
(F) Adolescence – 12 to adult

(A) 1. ____ This is the time for greatest growth in children.

(B) 2. ____ Children will spend more time in active play at the beginning of this age with more time in quiet play at the end of this age.

(E) 3. ____ Peer group approval becomes increasingly important.

(C) 4. ____ They move from parallel play to cooperative play.

(D) 5. ____ Children at this developmental stage are learning basic academic skills – reading, writing, and mathematics.

(A) 6. ____ Children at this age are not selfish, rather they can see the world only from their own viewpoint.

(D) 7. ____ Predominant hand is established.

(F) 8. ____ During this period, peer groups influence young people more than any other factor.

(F) 9. ____ They become less dependent on their family and try to achieve independence and autonomy.

(D) 10. ____ They learn to skip, skate, ride a two-wheel bike, walk on a balance beam and hold a pencil.

(F) 11. ____ They are able to shift from concrete to abstract thinking.

(E) 12. ____ They are interested in organized games and competitive activities.

SECTION THREE

Factors That Cause Disabilities or Impede Human Development

The previous section in this module dealt with the stages of human growth that are typical for most people. This section focuses on causes and categories of disabilities. This information is very general; it should be used to supplement the definitions and regulations connected with service delivery in your individual special education unit.

Cause of Disabilities. There are several factors that may lead to a child having developmental delays and other disabilities. They may be **genetic** (inherited from the parent's genes) or they may be **environmental**, and they may occur during the prenatal (before birth) natal (during birth) or postnatal (after birth) periods.

Genetic factors are physical and other characteristics in all people that are shaped by our genes. They determine if we are tall or short, have brown or red hair, the color of our eyes and more. Sometimes disabilities and other conditions are inherited as a result of the genes that are passed along to us from our parents. Many times a child's parents do not have the disability, but they carry the genes from earlier generations. Genetic factors may cause mild or severe disabilities that may, or may not, be life threatening. Examples of genetically caused disorders are Down Syndrome, Hemophilia, Sickle Cell Anemia and more.

Environmental Factors. Sometimes circumstances in a child's environment such as toxins in the air, may cause the child to have a disability. Water pollution and lead poisoning are other factors that can impact a child's environment and lead to a disability. Another example would be if a child's family has economic or other disadvantages that make it difficult for them to provide experiences that stimulate or encourage learning.

Disabilities may be caused by a condition that existed before birth such as alcohol abuse by a pregnant woman which can cause Fetal Alcohol Syndrome.

Disabilities can also occur from conditions existing during birth, such as a lack of oxygen, which can lead to any number of disabling conditions. Disabilities may also result from an accident or trauma that happened after birth, such as a head injury acquired later in life which can cause traumatic brain injury.

Prenatal means before birth. Many disabilities are the result of something happening to the fetus while it is still in the mother's womb.

If the mother has poor nutrition, has hepatitis or measles, uses drugs, alcohol, or smokes, her child might be born with a disability. Other factors that have been linked to these conditions are: medicine taken during pregnancy, and food additives.

Natal means at the time of birth. Some disabilities result from conditions present at the time of birth. Being born prematurely, having a loss of oxygen, long labor, excessive hemorrhaging or loss of blood for the mother, early separation of the placenta (the part of the tissue that is attached to the womb) and direct injury to the baby's head if instruments are used, are some events during the birth process that may cause disabilities.

Postnatal means after birth. In some cases, children or youth become disabled after birth. Injury to the central nervous system may happen in many ways including severe blows to the head as a result of an accident or child abuse. The inability to breathe for a period of time, poisoning, tumors, and infectious diseases such as meningitis or encephalitis are other examples of postnatal conditions that may result in disabling conditions.

Overview of Disabilities

Individuals with disabilities are infants, children, adolescents, young adults and elderly who have a life to live in the same respect as everyone else. Today, public concern and attention is directed toward providing the opportunities for life, liberty and the pursuit of happiness to all citizens. Paraeducators will be joining a large and distinguished group of parents, teachers, physicians, therapists, professionals and friends who are working to help individuals with disabilities live their lives in a way as close to "normal" as possible.

It should be noted that disabling conditions are quite prevalent; more people have disabilities than is realized and more and more people with disabilities are seen in the schools and communities. There are many causes and effects of the various disabling conditions and persons may have more than one disability. It must be remembered that students with disabilities are not deficient in all areas. Public attitudes toward these individuals depend on the type and the amount of information people have about the disability. Attitudes have changed for the better, but professionals working in the field of special education still have a responsibility to educate as many people as they can about disabling conditions.

Individuals with disabilities are different – but not different

The old cliché that says “No two people are alike” is certainly true of people with special needs. It is sometimes all too easy to slip into thinking that people with a certain kind of disability are exactly the same, that they have the same problems or personalities. But that is almost as unreasonable as saying that all people with red hair are alike. So it is important for paraeducators to remember that no two individuals with a disability are alike and that people with the same disability may learn to live with it in different ways.

Everyone shares certain human needs.

Everyone shares certain human needs and children with disabilities are no exception. Everybody needs to have attention, love, warmth, care, affection, discipline and companionship; the list of needs could go on for pages. These needs are almost as urgent as the basic needs for food and shelter. In fact, studies have shown that people who are deprived of social contacts can suffer emotional starvation that even affects them physically. It can retard their growth in the same way that physical starvation from lack of food retards growth.

Yet here again, it is too easy for some wrong assumptions to be made about people with disabilities: to be assumed, for instance, that because Sue has difficulty speaking she does not want to communicate; or that because Bill is withdrawn he does not need other people or want to interact with them; or that because Mary has cerebral palsy she cannot take part in school and leisure activities. People with disabilities are unique individuals; yet, like everyone else, they have basic human and social needs that must be met.

Individuals first – conditions, second.

The literature on children with special needs has also changed terminology to reflect the current philosophy that the individual should be recognized first and the condition second. The emphasis in P.L. 94-142 used the term “handicapped children”. This has been replaced by the term, “individuals with disabilities”.

Some causes of disabilities that may require special education services include: illnesses/chronic conditions (asthma, diabetes, etc.), injuries that occur before or during birth, during infancy or at any time during a person’s life, or genetically transferred disabling conditions. Causes can be found in the environment, in various diseases, or in a person’s genes and cells.

One can be as disabled by an automobile accident or lead poisoning as by a birth defect. In some cases, the disability is not noticeable until a child begins to miss certain milestones such as: a long delay in walking, talking or in learning how to take care of himself or herself—like dressing or feeding. Sometimes disabling events happen very early, but the conditions they cause remain “silent” and are not “heard from” until much later – maybe as late as when a person is a teenager or even middle aged. Sometimes a disability occurs as a single problem, such as a hearing loss. Other times they occur as multiple problems, such as deaf-blindness. Still others occur as syndromes or clusters of problems that develop together.

Some children with disabilities, who receive the proper instruction and guidance, may not have impaired functioning. This is not always the case, but the educational team should focus its attention towards this end.

Expectations for all children – to live and participate fully in the life of the community.

Some disabling conditions are more noticeable than others, and some people are immediately identifiable because of the way they look, move or act. Other disabling conditions, like specific learning disabilities or hearing impairment, are usually more hidden, but no less disabling because of that. How other people react to individuals with disabilities, and the expectations they may have, could have a great impact on how these individuals learn, grow and adapt to their environment.

As stated at the beginning of this training module, our expectations for children and youth with disabilities should be similar to our expectations for all children: to grow and to develop to their maximum potential and to live and participate fully in the life of the community. The students with whom paraeducators will be working have intellectual, physical or emotional problems due to a variety of causes. They might not stand or walk, hear or speak, see or learn like everybody else. The disabling conditions that are referenced in IDEA are briefly described in *Module 3 – Utilizing Effective Instructional Strategies to Serve Students with Disabilities in Integrated Settings*. Educational personnel should, of course, consult other references to learn as much as they can about the specific disabling conditions of the students with whom they will be working.

Disabilities eligible for special education services under IDEA include:

- Autism
- Deafness and Hearing Impairment
- Deaf-Blindness
- Emotional Disturbance
- Intellectual Disability
- Orthopedic Impairment
- Other Health Impairments
- Specific Learning Disabilities
- Speech and Language Impairments
- Traumatic Brain Injury
- Visual Impairments

(Please cover the answers.)

Section Three:
Factors that Cause Disabilities or Impede Human Development

Self-Assessment Questions

1. List two environmental factors that can cause disabilities.

(Answers may vary – see page 23.)

(a)

(b)

2. Many disabilities are the result of something happening to the fetus while it is still in the mother's womb. List at least three of those causes.

(Answers may vary – see page 24.)

(a)

(b)

(c)

3. Some disabilities result from conditions present at the time of birth. List two of those conditions.

(Answers may vary – see page 24.)

(a)

(b)

4. In some cases children acquire disabilities after birth. List three of these cases.

(Answers may vary – see page 24.)

(a)

(b)

(c)