

SUBAREA I.

HUMAN DEVELOPMENT AND THE EDUCATIONAL IMPLICATIONS OF LEARNING DISABILITIES

Skill 1.01 Demonstrate knowledge of human development and behavior

Social Emotional

Children whose behavior deviates from society's standards for normal behavior for certain ages and stages of development. Behavioral expectations vary from setting to setting – for example, it is acceptable to yell on the football field, but not as the teacher is explaining a lesson to the class. Different cultures have their standards of behavior, further complicating the question of what constitutes a behavioral problem. People also have their personal opinions and standards for what is tolerable and what is not. Some behavioral problems are openly expressed; others are inwardly directed and not very obvious. As a result of these factors, the terms behavioral disorders and emotional disturbance have become almost interchangeable.

While almost all children at times exhibit behaviors that are aggressive, withdrawn, or otherwise inappropriate, the IDEA definition of serious emotional disturbance focuses on behaviors that persist over time, are intense, and impairs a child's ability to function in society. The behaviors must not be caused by temporary stressful situations or other causes (i.e. depression over the death of a grandparent, or anger over the parents' impending divorce). In order for a child to be considered seriously emotionally disturbed, he or she must exhibit one or more of the following characteristics over a **long period of time** and to a **marked degree** that **adversely affects** a child's educational performance.

- Inability to learn, that cannot be explained by intellectual, sensory, or health factors
- Inability to maintain satisfactory interpersonal relationships
- Inappropriate types of behaviors
- General pervasive mood of unhappiness or depression
- Physical symptoms or fears associated with personal or school problems
- Schizophrenic children are covered under this definition, and social maladjustment by itself does not satisfy this definition unless it is accompanied by one of the other conditions of SED

The diagnostic categories and definitions used to classify mental disorders come from the American Psychiatric Association's publication Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), the handbook that is used by psychiatrists and psychologists. The DSM-IV is a multi-axial classification system consisting of dimensions (axes) coded along with the psychiatric diagnosis. The axes are:

- Axis I Principal psychiatric diagnosis (e.g. overanxious disorder)
- Axis II Developmental problems (e.g. developmental reading disorder)

- Axis III Physical disorders (e.g. allergies)
- Axis IV Psychosocial stressors (e.g. divorce)
- Axis V Rating of the highest level of adaptive functioning (includes intellectual and social). Rating is called Global Assessment Functioning (GAF) score.

While the DSM-IV diagnosis is one way of diagnosing serious emotional disturbance, there are other ways of classifying the various forms that behavior disorders manifest themselves. The following tables summarize some of these classifications.

Externalizing Behaviors	Internalizing Behaviors
Aggressive behaviors expressed outwardly toward others.	Withdrawing behaviors that are directed inward to oneself.
Manifested as hyperactivity, persistent aggression, irritating behaviors that are impulsive and distractible	Social withdrawal
Examples: hitting, cursing, stealing, arson, cruelty to animals, hyperactivity,	Depression, fears, phobias, elective mutism, withdrawal, anorexia and bulimia

Well-known instruments used to assess children's behavior have their own categories (scales) to classify behaviors. The following table illustrates the scales used in some of the widely used instruments.

Walker Problem Identification Checklist	Burks' Behavior Rating Scales (BBRS)	Devereux Behavior Rating Scale (adolescent)	Revised Behavior Problem Checklist (Quay & Peterson)
Acting out	Excessive self-blame	Unethical behavior	Major scales
Withdrawal	Excessive anxiety	Defiant-resistive	Conduct Disorder
Distractibility	Excessive withdrawal	Domineering-sadistic	Socialized aggression
Disturbed peer Relations	Excessive dependency	Heterosexual interest	Attention-problems-immaturity
Immaturity	Poor ego strength	Hyperactive expansive	Anxiety—withdrawal
	Poor physical	Poor emotional	

	strength	control	
	Poor coordination	Need approval, dependency	Minor scales
	Poor intellectuality	Emotional disturbance	Psychotic behavior
	Poor academics	Physical inferiority--timidity	Motor excess
	Poor attention	Schizoid withdrawal	
	Poor impulse control	Bizarre speech and cognition	
	Poor reality contact	Bizarre actions	
	Poor sense of identity		
	Excessive suffering		
	Poor anger control		
	Excessive sense of persecution		
	Excessive aggressiveness		
	Excessive resistance		
	Poor social conformity		

Disturbance may also be categorized in degrees: mild, moderate or severe. The degree of disturbance will affect the type and degree of interventions and services required by emotionally handicapped students. Degree of disturbance also must be considered when determining the least restrictive environment and the services named for free, appropriate education for these students. An example of a set of criteria for determining the degree of disturbance is the one developed by P.L. Newcomer:

	DEGREE	OF	DISTURBANCE
CRITERIA	Mild	Moderate	Severe
Precipitating events	Highly stressful	Moderately stressful	Not stressful
Destructiveness	Not destructive	Occasionally destructive	Usually destructive
Maturational appropriateness	Behavior typical for age	Some behavior untypical for age	Behavior too young or too old
Personal functioning	Cares for own needs	Usually cares for own needs	Unable to care for own needs
Social functioning	Usually able to relate to others	Usually unable to relate to others	Unable to relate to others
Reality index	Usually sees events as they are	Occasionally sees events as they are	Little contact with reality
Insight index	Aware of behavior	Usually aware of behavior	Usually not aware of behavior
Conscious control	Usually can control behavior	Occasionally can control behavior	Little control over behavior
Social responsiveness	Usually acts appropriately	Occasionally acts appropriately	Rarely acts appropriately

Source: Understanding and Teaching Emotionally Disturbed Children and Adolescents, (2nd ed., p. 139), by P.L. Newcomer, 1993, Austin, TX: Pro-De. Copyright 1993. Reprinted with permission.

LANGUAGE DEVELOPMENT AND BEHAVIOR COMPONENTS OF LANGUAGE

Language learning is composed of five components. Children progress through developmental stages through each component.

Phonology

Phonology is the system of rules about sounds and sound combinations for a language. A phoneme is the smallest unit of sound that combines with other sounds to make words. A phoneme, by itself, does not have a meaning; it must be combined with other phonemes. Problems in phonology may be manifested as developmental delays in acquiring consonants, or reception problems, such as misinterpreting words because a different consonant was substituted.

Morphology

Morphemes are the smallest units of language that convey meaning. Morphemes are root words, or free morphemes that can stand alone (e.g. walk), and affixes (e.g. ed, s, ing). Content words carry the meaning in a sentence, and functional words join phrases and sentences. Generally, students with problems in this area may not use inflectional endings in their words, may not be consistent in their use of certain morphemes or may be delayed in learning morphemes such as irregular past tenses.

Syntax

Syntax rules, commonly known as grammar, govern how morphemes and words are correctly combined. Wood, (1976) describes six stages of syntax acquisition (Mercer, p 347).

- **Stages 1 and 2-** Birth to about 2 years: Child is learning the semantic system.
- **Stage 3** – Ages 2 – 3 years: Simple sentences contain subject and predicate.
- **Stage 4-** Ages 2 ½ to 4 years: Elements such as question words are added to basic sentences (e.g. where), word order is changed to ask questions. The child begins to use “and” to combine simple sentences, and the child begins to embed words within the basic sentence.
- **Stage 5-** About 3 1/2 to 7 years: The child uses complete sentences that include word classes of adult language. The child is becoming aware of appropriate semantic functions of words and differences within the same grammatical class.
- **Stage 6-** About 5 to 20 years: The child begins to learn complex sentences and sentences that imply commands, requests and promises.

Syntactic deficits are manifested by the child using sentences that lack length or complexity for a child that age. The child may have problems understanding or creating complex sentences and embedded sentences.

Semantics

Semantics is language content: objects, actions, and relations between objects. As with syntax, Wood (1976) outlines stages of semantic development:

- **Stage 1-** Birth to about 2 years: The child is learning meaning while learning his first words. Sentences are one-word, but the meaning varies according to the context. Therefore, “doggie” may mean, “This is my dog,” or, “There is a dog,” or “The dog is barking.”

- **Stage 2-** About 2 to 8 years: The child progresses to two-word sentences about concrete actions. As more words are learned, the child forms longer sentences, until about age 7, things are defined in terms of visible actions. The child begins to respond to prompts (e.g. pretty/flower), and at about age 8, the child can respond to a prompt with an opposite (e.g. pretty/ugly).
- **Stage 3-** Begins at about age 8: The child's word meanings relate directly to experiences, operations and processes. Vocabulary is defined by the child's experiences, not the adult's. At about age 12, the child begins to give "dictionary" definitions, and the semantic level approaches that of adults.

Semantic problems take the form of:

- Limited vocabulary
- Inability to understand figurative language or idioms; interprets literally
- Failure to perceive multiple meanings of words, changes in word meaning from changes in context, resulting in incomplete understanding of what is read
- Difficulty understanding linguistic concepts (e.g. before/after), verbal analogies, and logical relationships such as possessives, spatial, and temporal
- Misuse of transitional words such as "although," "regardless"

Pragmatics

Commonly known as the speaker's intent, pragmatics is used to influence or control actions or attitudes of others. **Communicative competence** depends on how well one understands the rules of language, as well as the social rules of communication such as taking turns and using the correct tone of voice.

Pragmatic deficits are manifested by failures to respond properly to indirect requests after age 8 (e.g. "Can't you turn down the TV"? elicits a response of "No" instead of "Yes" and the child turning down the volume). Children with these deficits have trouble reading cues that indicate the listener does not understand them. Whereas a person would usually notice this and adjust one's speech to the listener's needs the child with pragmatic problems does not do this.

Pragmatic deficits are also characterized by inappropriate social behaviors such as interruptions or monopolizing conversations. Children may use immature speech and have trouble sticking to a topic. These problems can persist into adulthood, affecting academic, vocational and social interactions.

Problems in language development often require long-term interventions, and can persist into adulthood. Certain problems are associated with different grade levels:

Preschool and Kindergarten: The child's speech may sound immature, the child may not be able to follow simple directions, and often cannot name things such as the days of the week and colors. The child may not be able to discriminate between sounds and the letters associated with the sounds. The child might substitute sounds and have trouble responding accurately to certain types of questions. The child may play less with his peers or participate in non-play or parallel play.

Elementary School: Problems with sound discrimination persist, and the child may have problems with temporal and spatial concepts (e.g. before/after). As the child progresses through school, he may have problems making the transition from narrative to expository writing. Word retrieval problems may not be very evident because the child begins to devise strategies such as talking around the word he cannot remember, or using fillers, and descriptors. The child might speak more slowly, have problems sounding out words, and get confused with multiple-meaning words. Pragmatic problems show up in social situations such as failure to correctly interpret social cues and adjust to appropriate language, inability to predict consequences, and inability to formulate requests to obtain new information.

Secondary School: At this level, difficulties become more subtle. The child lacks the ability to use and understand higher-level syntax, semantics, and pragmatics. If the child has problems with auditory language, he may also have problems with short-term memory. Receptive and/or expressive language delays impair the child's ability to learn effectively. The child often lacks the ability to organize/ categorize the information received in school. Problems associated with pragmatic deficiencies persist but because the child is aware of them, he becomes inattentive, withdrawn, or frustrated.

Cognitive Development

Children go through patterns of learning beginning with pre-operational thought processes and move to concrete operational thoughts. Eventually they begin to acquire the mental ability to think about and solve problems in their head because they can manipulate objects symbolically. Children of most ages can use symbols such as words and numbers to represent objects and relations, but they need concrete reference points. It is essential children be encouraged to use and develop the thinking skills that they possess in solving problems that interest them. The content of the curriculum must be relevant, engaging, and meaningful to the students.

The teacher of special needs students must have a general knowledge of cognitive development. Although children with special needs cognitive development rate maybe different than other children, a teacher needs to be aware of some of the activities of each stage as part of the basis to determine what should be taught and when it should be taught.

The following information about cognitive development was taken from the Cincinatti Children's Hospital Medical Center at www.cincinattichildrens.org

Some common features indicating a progression from more simple to more complex cognitive development include the following:

Children (ages 6-12)

- Begin to develop the ability to think in concrete ways
Concrete operations are operations performed in the presence of the object and events that are to be used.
Examples: how to combine (addition), separate (subtract or divide), order (alphabetize and sort/categorize), and transform (change things such as 25 pennies=1 quarter) objects and actions

Adolescence (ages 12-18)

- Adolescence marks the beginning development of more complex thinking skills, including abstract thinking, the ability to reason from known principles (form own new ideas or questions), the ability to consider many points of view according to varying criteria (compare or debate ideas or opinions), and the ability to think about the process of thinking.

What cognitive developmental changes occur during adolescence?

During adolescence (between 12 and 18 years of age), the developing teenager acquires the ability to think systematically about all logical relationships within a problem. The transition from concrete thinking to formal logical operations occurs over time. Every adolescent progresses at varying rates in developing his / her ability to think in more complex ways. Each adolescent develops his / her own view of the world. Some adolescents may be able to apply logical operations to school work long before they are able to apply them to personal dilemmas. When emotional issues arise, they often interfere with an adolescent's ability to think in more complex ways. The ability to consider possibilities, as well as facts, may influence decision making, in either positive or negative ways.

Some common features indicating a progression from more simple to more complex cognitive development include the following:

Early adolescence

- During early adolescence, the use of more complex thinking is focused on personal decision making in school and home environments, including the following:

-Begins to demonstrate use of formal logical operations in schoolwork.

-Begins to question authority and society standards.

-Begins to form and verbalize his / her own thoughts and views on a variety of topics, usually more related to his / her own life, such as:

- which sports are better to play.
- which groups are better to be included in.
- what personal appearances are desirable or attractive.
- what parental rules should be changed.

- Middle adolescence

With some experience in using more complex thinking processes, the focus of middle adolescence often expands to include more philosophical and futuristic concerns, including the following:

- Often questions more extensively.
- Often analyzes more extensively.
- Thinks about and begins to form his / her own code of ethics
- Thinks about different possibilities and begins to develop own identity

- Thinks about and begins to systematically consider possible future goals
- Thinks about and begins to make his / her own plans.
- Begins to think long term.
- Use of systematic thinking begins to influence relationships with others.

-Late adolescence

During late adolescence, complex thinking processes are used to focus on less self-centered concepts as well as personal decision making, including the following:

- Increased thoughts about more global concepts such as justice, history, politics, and patriotism.
- Develops idealistic views on specific topics or concerns.
- Debate and develop intolerance of opposing views.
- Begins to focus thinking on making career decisions.
- Begins to focus thinking on emerging role in adult society.

What encourages healthy cognitive development during adolescence?

The following suggestions will help to encourage positive and healthy cognitive development in the adolescent:

- Include adolescents in discussions about a variety of topics, issues, and current events.
- Encourage adolescents to share ideas and thoughts with adults.
- Encourage adolescents to think independently and develop their own ideas.
- Assist adolescents in setting their own goals.
- Stimulate adolescents to think about possibilities of the future.
- Compliment and praise adolescents for well thought out decisions.
- Assist adolescents in re-evaluating poorly made decisions for themselves.