
Introduction

The third module of the training course for paraeducators who are working in educational settings in North Dakota schools is entitled *Utilizing Effective Instructional Strategies To Serve Students With Disabilities In Integrated Settings*. The purpose of this module is to provide a general overview of the disability areas in the Individuals with Disabilities Education Act (IDEA). As a paraeducator, you will hear disability conditions and their acronyms mentioned frequently in the schools where you are employed. To better understand the terminology used in special education, general information is provided about each disability area. Sections one, two and three of this module have a brief overview of the disabilities including definitions from (IDEA), characteristics of the disabilities, and educational implications for students with the various disabilities. Section four includes different teaching strategies that a paraeducator may use as they work with students with disabilities in integrated settings.

Module 3 is organized into four sections:

Section 1 - Overview of Disabilities

- **Specific Learning Disabilities**
- **Speech and Language Impairments**
- **Emotional Disturbance**
- **Intellectual Disability**

Section 2 - Overview of Disabilities

- **Deafness and Hearing Impairments**
- **Deaf-Blindness**
- **Visual Impairments**

Section 3 - Overview of Disabilities

- **Autism**
- **Orthopedic Impairments**
- **Other Health Impairments**
- **Traumatic Brain Injury**

Section 4 - Serving Students with Disabilities in Integrated Settings

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.

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Information in these fact sheets is in the public domain unless otherwise indicated. Readers are encouraged to copy and share it, but please credit the National Information Center for Children and Youth with Disabilities (NICHCY).

Each fact sheet includes a list of resources and a list of organizations for the disability area described in the fact sheet. The resources and organizations are not included in this document, *Utilizing Effective Instructional Strategies to Serve Students with Disabilities in Integrated Settings*. They can be accessed through the NICHCY web site.

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The information on deaf-blindness is from the DB-LINK, the National Information Clearinghouse on Children Who Are Deaf-Blind. DB-LINK is a federally funded information clearinghouse that identifies, coordinates, and disseminates information related to children (0-21) who are deaf-blind. DB-LINK provides free individualized information and referral services across many topics including effective early intervention, special education and general education practices, medical, health, social, recreational services, legal issues, employment and independent living, postsecondary educational services, and information on the nature of deaf-blindness. The information is available at no cost. Parents, professionals, employers, and other members of the public are encouraged to contact DB-LINK.

SECTION ONE

SPECIFIC LEARNING DISABILITIES

Definition of Specific Learning Disabilities

Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

Having a single term to describe this category of children with disabilities reduces some of the confusion, but there are many conflicting theories about what causes learning disabilities and how many there are. The label "learning disabilities" is all-embracing; it does not describe a specific child with specific problems. The definition assists in classifying children, not teaching them. Parents and teachers need to concentrate on the individual child. They need to observe both how and how well the child performs, to assess strengths and weaknesses, and develop ways to help each child learn. It is important to remember that there is a high degree of interrelationship and overlapping among the areas of learning. Therefore, children with learning disabilities may exhibit a combination of characteristics. These problems may mildly, moderately, or severely impair the learning process.

Characteristics of Specific Learning Disabilities

Learning disabilities are characterized by a significant difference in the child's achievement in some areas, as compared to his or her overall intelligence.

Students who have learning disabilities may exhibit a wide range of traits, including problems with reading comprehension, spoken language, writing, or reasoning ability. Hyperactivity, inattention, and perceptual coordination problems may also be associated with learning disabilities. Other traits that may be present include a variety of symptoms, such as uneven and unpredictable test performance, perceptual impairments, motor disorders, and behaviors such as impulsiveness, low tolerance for frustration, and problems in handling day-to-day social interactions and situations.

Learning disabilities may occur in the following academic areas:

- Spoken language: delays, disorders, or discrepancies in listening and speaking;
- Written language: difficulties with reading, writing, and spelling;
- Arithmetic: difficulty in performing arithmetic functions or in comprehending basic concepts;
- Reasoning: difficulty in organizing and integrating thoughts; and
- Organization skills: difficulty in organizing all facets of learning.

***Educational
Implications for
Students with
Specific
Learning
Disabilities***

Because learning disabilities are manifested in a variety of behavior patterns, the Individualized Education Program (IEP) must be designed carefully. A team approach is important for educating the child with a learning disability, beginning with the assessment process and continuing through the development of the IEP. Close collaboration among special class teachers, parents, resource room teachers, general education class teachers, paraeducators, and others will facilitate the overall development of a child with learning disabilities.

Some teachers report that the following strategies have been effective with some students who have learning disabilities:

- Capitalize on the student's strengths;
- Provide high structure and clear expectations;

- Use short sentences and a simple vocabulary;
- Provide opportunities for success in a supportive atmosphere to help build self-esteem;
- Allow flexibility in classroom procedures (e.g., allowing the use of tape recorders for note-taking and test-taking when students have trouble with written language);
- Make use of self-correcting materials, which provide immediate feedback without embarrassment;
- Use computers for drill and practice and teaching word processing; and
- Provide positive reinforcement of appropriate social skills at school and home.

(NICHCY Fact Sheet Number 7 (FS7), April 2000)

SPEECH OR LANGUAGE IMPAIRMENTS

Definition of Speech or Language Impairments

Speech or language impairment means a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child's educational performance.

Speech or language impairments refer to problems in communication and related areas such as oral motor function. These delays and disorders range from simple sound substitutions to the inability to understand or use language or use the oral-motor mechanism for functional speech and feeding. Some causes of speech and language disorders include hearing loss, neurological disorders, brain injury, intellectual disability, drug abuse, physical impairments such as cleft lip or palate, and vocal abuse or misuse. Frequently, however, the cause is unknown.

Characteristics of Speech or Language Impairments

A child's communication is considered delayed when the child is noticeably behind his or her peers in the acquisition of speech and/or language skills. Sometimes a child will have greater receptive (understanding) than expressive (speaking) language skills, but this is not always the case.

Speech disorders refer to difficulties producing speech sounds or problems with voice quality. They might be characterized by an interruption in the flow or rhythm of speech, such as stuttering, which is called dysfluency. Speech disorders may be problems with the way sounds are formed, called articulation or phonological disorders, or they may be difficulties with the pitch, volume or quality of the voice. There may be a combination of several problems. Students with speech disorders have difficulty using some speech sounds, which can also be a symptom of a delay. They may say "see" when they mean "ski" or they may have difficulty using other sounds like "l" or "r". Listeners may have difficulty understanding what someone with a speech disorder is trying to say. Students with voice disorders may have difficulty with the way their voices sound.

A language disorder is an impairment in the ability to understand and/or use words in context, both verbally and nonverbally. Some characteristics of language disorders include improper use of words and their meanings, inability to express ideas, inappropriate grammatical patterns, reduced vocabulary and inability to follow directions. One or a combination of these characteristics may occur in children who are affected by language learning disabilities or developmental language delay. Children may hear or see a word but not be able to understand its meaning. They may have trouble getting others to understand what they are trying to communicate.

***Educational
Implications for
Students with
Speech or
Language
Impairments***

Because all communication disorders carry the potential to isolate individuals from their social and educational surroundings, it is essential to find appropriate timely intervention. While many speech and language patterns can be called "baby talk" and are part of a young child's normal development, they can become problems if they are not outgrown as expected. In this way an initial delay in speech and language or an initial speech pattern can become a disorder which can cause difficulties in learning. Because of the way the brain develops, it is easier to learn language and communication skills before the age of five. When children have muscular disorders, hearing problems or developmental delays, their acquisition of speech, language and related skills is often affected.

Speech-language pathologists assist children who have communication disorders in various ways. They provide individual speech-language pathology services for the child; consult with the child's teacher about the most effective ways to facilitate the child's communication in the class setting; and work closely with the family to develop goals and techniques for effective speech services in class and at home. Technology can help children whose physical conditions make communication difficult. The use of electronic communication systems allow nonspeaking persons and persons with severe physical disabilities to engage in the give and take of shared thought.

Vocabulary and concept growth continues during the years children are in school. Reading and writing are taught and, as students get older, the understanding and use of language becomes more complex. Communication skills are at the heart of the education experience. Speech and/or language services may continue throughout a student's school year either in the form of direct services or on a consultant basis. The speech-language pathologist may assist vocational teachers and counselors in establishing communication goals related to the work experiences of students and suggest strategies that are effective for the important transition from school to employment and adult life.

Communication has many components. All serve to increase the way people learn about the world around them, utilize knowledge and skills, and interact with colleagues, family and friends.

(NICHCY Fact Sheet Number 11 (FS11), April 2000)

EMOTIONAL DISTURBANCE

Definition of Emotional Disturbance

Many terms are used to describe emotional, behavioral or mental disorders. Currently, students with such disorders are categorized as having an emotional disturbance, which is defined under the Individuals with Disabilities Education Act as follows:

...a condition exhibiting 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:

- (A) An inability to learn that cannot be explained by intellectual, sensory, or health factors;
- (B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
- (C) Inappropriate types of behavior or feelings under normal circumstances;
- (D) A general pervasive mood of unhappiness or depression; or
- (E) A tendency to develop physical symptoms or fears associated with personal or school problems.

The term emotional disturbance includes schizophrenia but does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance.

Characteristics of Emotional Disturbance

The causes of emotional disturbance have not been adequately determined. Although various factors such as heredity, brain disorder, diet, stress, and family functioning have been suggested as possible causes, research has not shown any of these factors to be the direct cause of behavior problems. Some of the characteristics and behaviors seen in children who have emotional disturbances include:

- Hyperactivity (short attention span, impulsiveness);
- Aggression/self-injurious behavior (acting out, fighting);
- Withdrawal (failure to initiate interaction with others; retreat from exchanges of social interaction, excessive fear or anxiety);
- Immaturity (inappropriate crying, temper tantrums, poor coping skills); and
- Learning difficulties (academically performing below grade level).

Children with emotional disturbances may exhibit distorted thinking, excessive anxiety, bizarre motor acts, and abnormal mood swings and are sometimes identified as children who have a severe psychosis or schizophrenia.

Many children who do not have emotional disturbances may display some of these same behaviors at various times during their development. However, when children have emotional disturbances, these behaviors continue over long periods of time. Their behavior thus signals that they are not coping with their environment or peers.

***Educational
Implications for
Students with
Emotional
Disturbance***

The educational programs for students with an emotional disturbance need to include attention to mastering academics, developing social skills, and increasing self-awareness, self-esteem, and self-control. Career education (both academic and vocational programs) is also a major part of secondary education and should be a part of every adolescent's transition plan in his or her Individualized Education Program (IEP).

Behavior modification is one of the most widely used approaches to helping children with an emotional disturbance. However, there are many other techniques that are also successful and may be used in combination with behavior modification. Life Space Intervention and Conflict Resolution are two such techniques.

Students eligible for special education services under the category of emotional disturbance may have IEPs that include psychological or counseling services as a related service. This is an important related service which is available under the law and is to be provided by a qualified social worker, psychologist, guidance counselor, or other qualified personnel.

There is growing recognition that families, as well as their children, need support, respite care, intensive case management services, and a multi-agency treatment plan. Many communities are working toward providing these wrap-around services, and there are a growing number of agencies and organizations actively involved in establishing support services in the community. Parent support groups are also important, and organizations such as the Federation of Families for Children's Mental Health and the National Alliance for the Mentally Ill (NAMI) have parent representatives and groups in every state.

***Other
Considerations
for Families of
Students with
Emotional
Disturbance***

Families of children with emotional disturbances may need help in understanding their children's condition and in learning how to work effectively with them. Help is available from psychiatrists, psychologists or other mental health professionals in public or private mental health settings. Children should be provided services based on their individual needs, and all persons who are involved with these children should be aware of the care they are receiving. It is important to coordinate all services between home, school, and therapeutic community with open communication.

(NICHCY Fact Sheet Number 5 (FS5), April 2000)

INTELLECTUAL DISABILITY

Definition of Intellectual Disability

Persons with intellectual disability are those who develop at a below average rate and experience difficulty in learning and social adjustment. The regulations for the Individuals with Disabilities Education Act (IDEA) provide the following definition for intellectual disability:

Intellectual disability means significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance.

"General intellectual functioning" is typically measured by an intelligence test. Persons with intellectual disability usually score 70 or below on such tests. "Adaptive behavior" refers to a person's adjustment to everyday life. Difficulties may occur in learning, communication, social, academic, vocational, and independent living skills.

Intellectual disability is not a disease, nor should it be confused with mental illness. Children with intellectual disability become adults; they do not remain "eternal children." They do learn, but slowly, and with difficulty.

Probably the greatest number of children with intellectual disability have chromosome abnormalities. Other biological factors include (but are not limited to): asphyxia (lack of oxygen); blood incompatibilities between the mother and fetus; and maternal infections, such as rubella or herpes. Certain drugs have also been linked to problems in fetal development.

Characteristics of Intellectual Disability

Many authorities agree that students with intellectual disability develop in the same way as students without intellectual disability, but at a slower rate. Others suggest that persons with intellectual disability have difficulties in particular areas of basic thinking and learning such as attention, perception, or memory. Depending on the extent of the impairment -- mild, moderate, severe, or profound -- individuals with intellectual disability will develop differently in academic, social, and vocational skills.

***Educational
Implications
for Students
with
Intellectual
Disability***

Persons with intellectual disability have the capacity to learn, to develop, and to grow. The great majority of these citizens can become productive and full participants in society.

Appropriate educational services that begin in infancy and continue throughout the developmental period and beyond will enable children with intellectual disability to develop to their fullest potential.

As with all education, modifying instruction to meet individual needs is the starting point for successful learning. Throughout their child's education, parents should be an integral part of the planning and teaching team.

In teaching students with intellectual disability, it is important to:

- Use concrete materials that are interesting, age-appropriate, and relevant to the students;
- Present information and instructions in small, sequential steps and review each step frequently;
- Provide prompt and consistent feedback;
- Teach these children, whenever possible, in the same school they would attend if they did not have intellectual disability;
- Teach tasks or skills that students will use frequently in such a way that students can apply the tasks or skills in settings outside of school; and
- Remember that tasks that many students learn without instruction may need to be structured, or broken down into small steps or segments, with each step being carefully taught.

Children and adults with intellectual disability need the same basic services that all people need for normal development. These include education, vocational preparation, health services, recreational opportunities, and many more. In addition, many persons with intellectual disability need specialized services for special needs. Such services include diagnostic and evaluation centers; special early education opportunities, beginning with infant stimulation programs and continuing through preschool; and educational programs that include age-appropriate activities, functional academics, transition training, and opportunities for independent living and competitive employment to the maximum extent possible.

(NICHCY Fact Sheet Number 8 (FS8), April 2000)

Down syndrome is the most common and readily identifiable chromosomal condition associated with intellectual disability.

Down Syndrome is caused by a chromosomal abnormality: for some unexplained reason, an accident in cell development results in 47 instead of the usual 46 chromosomes. This extra chromosome changes the orderly development of the body and brain. In most cases, the diagnosis of Down syndrome is made according to results from a chromosome test administered shortly after birth.

Characteristics of Down Syndrome

There are over 50 clinical signs of Down syndrome, but it is rare to find all or even most of them in one person. Some common characteristics include:

- Poor muscle tone;
- Slanting eyes with folds of skin at the inner corners (called epicanthal folds);
- Hyperflexibility (excessive ability to extend the joints);
- Short, broad hands with a single crease across the palm on one or both hands;
- Broad feet with short toes;
- Flat bridge of the nose;
- Short, low-set ears;
- Short neck;
- Small head;
- Small oral cavity; and/or
- Short, high-pitched cries in infancy.

Individuals with Down syndrome are usually smaller than their non-disabled peers, and their physical as well as intellectual development is slower.

Besides having a distinct physical appearance, children with Down syndrome frequently have specific health-related problems. A lowered resistance to infection makes these children more prone to respiratory problems. Visual problems such as crossed eyes and far- or nearsightedness are higher in persons with Down syndrome, as are mild to moderate hearing losses and speech difficulties.

Approximately one third of babies born with Down syndrome have heart defects, most of which are now successfully correctable. Some individuals are born with gastrointestinal tract problems that can be surgically corrected.

Some persons with Down syndrome may also have a condition known as Atlantoaxial Instability, a misalignment of the top two vertebrae of the neck. This condition makes these individuals more prone to injury if they participate in activities which overextend or flex the neck. Parents are urged to have their child examined by a physician to determine whether or not their child should be restricted from sports and activities which place stress on the neck. Although this misalignment is a potentially serious condition, proper diagnosis can help prevent serious injury.

Children with Down syndrome may have a tendency to become obese as they grow older. Besides having negative social implications, this weight gain threatens these individuals' health and longevity. A supervised diet and exercise program may help with this problem.

***Educational and
Employment
Implications for
Students with
Down Syndrome***

Shortly after a diagnoses of Down syndrome is confirmed, parents should be encouraged to enroll their child in an infant development/early intervention program. These programs offer parents special instruction in teaching their child language, cognitive, self-help, and social skills, and specific exercises for gross and fine motor development. Research has shown that stimulation during early developmental stages improves the child's chances of developing to his or her fullest potential. Continuing education, positive public attitudes, and a stimulating home environment have also been found to promote the child's overall development.

Just as in the normal population, there is a wide variation in mental abilities, behavior, and developmental progress in individuals with Down syndrome. Their level of retardation may range from mild to severe, with the majority functioning in the mild to moderate range. Due to these individual differences, it is impossible to predict future achievements of children with Down syndrome.

Because of the range of ability in children with Down syndrome it is important for families and all members of the school's education team to place few limitations on potential capabilities. It may be effective to emphasize concrete concepts rather than abstract ideas. Teaching tasks in a step-by-step manner with frequent reinforcement and consistent feedback has been proven successful. Improved public acceptance of persons with disabilities along with increased opportunities for adults with disabilities to live and work independently in the community, have expanded goals for individuals with Down syndrome. Independent Living Centers, group shared and supervised apartments and support services in the community have proven to be important resources for persons with disabilities.

(NICHCY Fact Sheet Number 4 (FS4), April 2000)

(Please cover the answers.)

Section One: Overview of Disabilities – SLD, SI, ED, and ID

Self-Assessment Questions

**Learning
disabilities**

1. _____ are characterized by a significant difference in the child's achievement in some areas, as compared to his or her overall intelligence.
2. Name three academic areas where learning disabilities may occur:

**(Answers may
vary – see
page 2.)**

delayed

- a.
- b.
- c.
3. A child's communication is considered _____ when the child is noticeably behind his or her peers in the acquisition of speech and/or language skills.

**language
disorder**

4. A _____ is an impairment in the ability to understand and/or use words in context.

**(Answers may
vary – see
page 8.)**

coordinate

5. List two characteristics and behaviors that may be seen in children who have emotional disturbances:
 - a.
 - b.
6. When working with students with emotional disturbance, it is important to _____ all services between home and school and the therapeutic community.

**intellectual
disability**

7. Appropriate educational services that begin in infancy and continue throughout the development period and beyond will enable children with _____ to develop to their fullest potential.

concrete

8. In teaching students with intellectual disability, it is important to use _____ materials that are interesting, age appropriate and relevant to the students.

SECTION TWO

DEAFNESS AND HEARING IMPAIRMENT

Definition of Deafness and Hearing Impairment

The Individuals with Disabilities Education Act (IDEA), includes "hearing impairment" and "deafness" as two of the categories under which children with disabilities may be eligible for special education and related service programming. While the term "hearing impairment" is often used generically to describe a wide range of hearing losses, including deafness, the regulations for IDEA define hearing impairment and deafness separately.

Hearing impairment is defined by IDEA as an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance.

Deafness is defined as a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects the child's educational performance.

Deafness may be viewed as a condition that prevents an individual from receiving sound in all or most of its forms. In contrast, a child with a hearing loss can generally respond to auditory stimuli, including speech.

Characteristics of Deafness and Hearing Impairment

It is useful to know that sound is measured by its loudness or intensity (measured in units called decibels, dB) and its frequency or pitch (measured in units called hertz, Hz). Impairments in hearing can occur in either or both areas, and may exist in only one ear or in both ears. Hearing loss is generally described as slight, mild, moderate, severe, or profound, depending upon how well a person can hear the intensities or frequencies most greatly associated with speech. Generally, only children whose hearing loss is greater than 90 decibels (dB) are considered deaf for the purposes of educational placement.

There are four types of hearing loss. **Conductive hearing losses** are caused by diseases or obstructions in the outer or middle ear (the conduction pathways for sound to reach the inner ear). Conductive hearing losses usually affect all frequencies of hearing evenly and do not result in severe losses. A person with a conductive hearing loss usually is able to use a hearing aid well or can be helped medically or surgically.

Sensorineural hearing losses result from damage to the delicate sensory hair cells of the inner ear or the nerves which supply it. These hearing losses can range from mild to profound. They often affect the person's ability to hear certain frequencies more than others. Thus, even with amplification to increase the sound level, a person with a sensorineural hearing loss may perceive distorted sounds, sometimes making the successful use of a hearing aid impossible.

A **mixed hearing loss** refers to a combination of conductive and sensorineural loss and means that a problem occurs in both the outer or middle and the inner ear.

A **central hearing loss** results from damage or impairment to the nerves or nuclei of the central nervous system, either in the pathways to the brain or in the brain itself.

***Educational
Implications for
Students with
Deafness and
Hearing
Impairments***

Hearing loss or deafness does not affect a person's intellectual capacity or ability to learn. However, children who are either hard of hearing or deaf generally require some form of special education services in order to receive an adequate education. Such services may include:

- speech, language, and auditory training from a specialist;
- amplification systems;
- services of an interpreter for those students who use manual communication;
- favorable seating in the class to facilitate speechreading;
- captioned films/videos;
- assistance of a notetaker, who takes notes for the student with a hearing loss, so that the student can fully attend to instruction;
- instruction for the teacher and peers in alternate communication methods, such as sign language; and
- counseling.

Children who are hard of hearing will find it much more difficult than children who have normal hearing to learn vocabulary, grammar, word order, idiomatic expressions, and other aspects of verbal communication. For children who are deaf or have severe hearing losses, early, consistent, and conscious use of visible communication modes (such as sign language, fingerspelling, and Cued Speech) and/or amplification and aural/oral training can help reduce this language delay. By age four or five, most children who are deaf are enrolled in school on a full-day basis and do special work on communication and language development. It is important for teachers and audiologists to work together to teach the child to use his or her residual hearing to the maximum extent possible, even if the preferred means of communication is manual. Since the great majority of deaf children (over 90%) are born to hearing parents, programs should provide instruction for parents on implications of deafness within the family.

Persons with hearing loss use oral or manual means of communication or a combination of the two. Oral communication includes speech, speechreading and the use of residual hearing. Manual communication involves signs and fingerspelling. Total Communication, as a method of instruction, is a combination of the oral method plus signs and fingerspelling.

Individuals with hearing loss, including those who are deaf, now have many helpful devices available to them. Text telephones (known as TTs, TTYs, or TDDs) enable persons to type phone messages over the telephone network. The Telecommunications Relay Service (TRS), now required by law, makes it possible for TT users to communicate with virtually anyone (and vice versa) via telephone. The National Institute on Deafness and Other Communication Disorders Information Clearinghouse (telephone: 1-800-241-1044, voice; 1-800-241-1055, TT) makes available lists of TRS numbers by state.

(NICHCY Fact Sheet Number 3 (FS3), April 2000)

DEAF-BLINDNESS

Definition of Deaf-Blindness

Deaf-blindness means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

It may seem that deaf-blindness refers to a total inability to see or hear. However, in reality deaf-blindness is a condition in which there is a combination of varying degrees of visual and hearing impairments. The combination of impairments may cause such severe communication and other developmental and learning needs that the persons cannot be appropriately educated in special education programs solely for children and youth with hearing impairments, visual impairments or severe disabilities, without supplementary assistance to address their educational needs due to these dual, concurrent disabilities.

Characteristics of Deaf-Blindness

A person who is deaf-blind has a unique experience of the world. For persons who can see and hear, the world extends outward as far as his or her eyes or ears can reach. For the young child who is deaf-blind, the world is initially much narrower. If the child is profoundly deaf and totally blind, his or her experience of the world extends only as far as the fingertips can reach. Such children are alone if no one is touching them. Their concepts of the world depend upon what or whom they have had the opportunity to physically contact.

If a child who is deaf-blind has some usable vision and/or hearing, as many do, his or her world will be enlarged. Many children called deaf-blind have enough vision to be able to move about in their environments, recognize familiar people, see sign language at close distances, and perhaps read large print. Others have sufficient hearing to recognize familiar sounds, understand some speech, or develop speech themselves. The range of sensory impairments included in the term “deaf-blindness” is great.

***Educational
Implications for
Students with
Deaf-Blindness***

Given the variation in the effects and forms of deaf-blindness, the most effective way to understand the implications of having deaf-blindness for an individual is to get to know the student. By observing students in various environments and situations and while they are performing daily living tasks, recreational activities, academic and/or job-related tasks, you will learn what information is important to them and how they gather the information. Observe while they explore, manipulate, respond to, learn about new clothing, toys, household items, tools, foods, low and high tech communication systems, new classrooms, recreational facilities, and other environments in their communities. Observe them communicate their wants, likes, and dislikes through body language, facial expressions, and language systems. Keep in mind that you need to give them sufficient time to respond to information provided through the senses. These students may need considerably more time than you might expect because they need to explore objects and environments, using their sense of touch and other senses to gather information slowly and systematically, and relate the new experiences to those of the past.

Children with deaf-blindness usually do not have the advantage of effortless learning and access to information. They may not have access to visual and auditory information, or the visual and auditory information they receive may be limited, distorted, or incomplete. Therefore, they need to:

- be taught many of the things that others learn incidentally;
- be provided with direct experience, information, and repetition, so they can learn to predict situations and develop concepts;
- be given opportunities to apply what they have learned to new and varied situations and environments;
- complement visual and auditory information with information from the other senses; maximize the use of tactile information;
- be instructed on how to examine things systematically;
- be motivated to explore and get involved with other people and things in the environment; and
- feel secure, so they can reach out and engage people and things and to realize some control over their environments.

For students with deaf-blindness to get the most information possible from experiences and to compensate for the loss of the distance senses, it is essential that teachers help their students develop their communication, and orientation and mobility skills. Early intervention provides a child with deaf-blindness ways to get information that are vital for concept development. Early support for parents gives them tools to help their infants and toddlers with deaf-blindness to develop.

(DB-LINK Fact Sheet, 1998)

VISUAL IMPAIRMENT INCLUDING BLINDNESS

Definition of Visual Impairments Including Blindness

Visual impairment including blindness means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

The terms partially sighted, low vision, legally blind, and totally blind are used in the educational context to describe students with visual impairments. They are defined as follows:

- **Partially sighted** indicates some type of visual problem has resulted in a need for special education;
- **Low vision** generally refers to a severe visual impairment, not necessarily limited to distance vision. Low vision applies to all individuals with sight who are unable to read the newspaper at a normal viewing distance, even with the aid of eyeglasses or contact lenses. They use a combination of vision and other senses to learn, although they may require adaptations in lighting or the size of print, and, sometimes, Braille;
- **Legally blind** indicates that a person has less than 20/200 vision in the better eye or a very limited field of vision (20 degrees at its widest point); and
- **Totally blind** students learn via Braille or other non-visual media.

Visual impairment is the consequence of a functional loss of vision, rather than the eye disorder itself. Eye disorders that can lead to visual impairments can include retinal degeneration, albinism, cataracts, glaucoma, muscular problems that result in visual disturbances, corneal disorders, diabetic retinopathy, congenital disorders, and infection.

**Characteristics
of Visual
Impairments
Including
Blindness**

The effect of visual problems on a child's development depends on the severity, type of loss, age at which the condition appears, and overall functioning level of the child. Many children who have multiple disabilities may also have visual impairments resulting in motor, cognitive, and/or social developmental delays.

A young child with visual impairments has little reason to explore interesting objects in the environment and, thus, may miss opportunities to have experiences and to learn. This lack of exploration may continue until learning becomes motivating or until intervention begins.

Because the child cannot see parents or peers, he or she may be unable to imitate social behavior or understand nonverbal cues. Visual impairments can create obstacles to a growing child's independence.

**Educational
Implications for
Students with
Visual
Impairments
Including
Blindness**

Children with visual impairments should be assessed early to benefit from early intervention programs, when applicable. Technology in the form of computers and low-vision optical and video aids enable many partially sighted, low vision and blind children to participate in general education activities. Large print materials, books on tape, and Braille books are available.

Students with visual impairments may need additional help with special equipment and modifications in the general education curriculum to emphasize listening skills, communication, orientation and mobility, vocation/career options, and daily living skills. Students with low vision or those who are legally blind may need help in using their residual vision more efficiently and in working with special aids and materials. Students who have visual impairments combined with other types of disabilities have a greater need for an interdisciplinary approach and may require greater emphasis on self care and daily living skills.

(NICHCY Fact Sheet Number 13 (FS13), April 2000)

For more information about “Paraprofessionals Working with Students Who Have Visual Impairments” refer to Appendix J of the “Resource Manual: The Implementation of Effective Paraeducator Practices in Educational Settings”, March 2000, developed and disseminated by the Department of Public Instruction.

(Please cover the answers.)

Section Two: Overview of Disabilities – Deaf, HI, DB, and VI

Self-Assessment Questions

- | | |
|--|--|
| Deafness | 1. _____ may be viewed as a condition that prevents an individual from receiving sound in all or most of its forms. |
| hearing loss | 2. A child with a _____ can generally respond to auditory stimuli. |
| conductive | 3. The type of hearing loss that usually affects all frequencies of hearing evenly is called a _____ hearing loss. |
| sensorineural | 4. The hearing loss that results from damage to the delicate sensory hair cells of the inner ear or the nerves which supply it is called a _____ hearing loss. |
| Deaf-blindness | 5. _____ is a condition in which there is a combination of varying degrees of visual and hearing impairments. |
| systematically | 6. Children with deaf-blindness must be instructed how to examine things _____. |
| visual | 7. A _____ impairment is the consequence of a functional loss of vision, rather than the eye disorder itself. |
| (Answers may vary – see page 23.) | 8. Three eye disorders which can lead to visual impairments may be:
a.
b.
c. |

SECTION THREE

AUTISM

Definition of Autism

Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance as defined in IDEA.

Characteristics of Autism

Some or all of the following characteristics may be observed in mild to severe forms:

- Communication problems (e.g., using and understanding language);
- Difficulty in relating to people, objects, and events;
- Unusual play with toys and other objects;
- Difficulty with changes in routine or familiar surroundings; and
- Repetitive body movements or behavior patterns.

Children with autism vary widely in abilities, intelligence, and behaviors. Some children do not speak; others have limited language that often includes repeated phrases or conversations. Children with more advanced language skills tend to use a small range of topics and have difficulty with abstract concepts. Repetitive play skills, a limited range of interests, and impaired social skills are generally evident as well. Unusual responses to sensory information -- for example, loud noises, lights, certain textures of food or fabrics -- are also common.

***Educational
Implications for
Students with
Autism***

Early diagnosis and appropriate educational programs are very important to children with autism. From the age of three, children with autism are eligible for an educational program appropriate to their individual needs. Educational programs for students with autism focus on improving communication, social, academic, behavioral, and daily living skills. Behavior and communication problems that interfere with learning sometimes require the assistance of a knowledgeable professional in the field of autism who develops and helps to implement a plan which can be carried out at home and school.

The classroom environment should be structured so that the program is consistent and predictable. Students with autism learn better and are less confused when information is presented visually as well as verbally. Interaction with nondisabled peers is also important, for these students provide models of appropriate language, social, and behavior skills. To overcome frequent problems in generalizing skills learned at school, it is very important to develop programs with parents, so that learning activities, experiences, and approaches can be carried over into the home and community.

With educational programs designed to meet a student's individual needs and specialized adult support services in employment and living arrangements, children and adults with autism can live and work in the community.

(NICHCY Fact Sheet Number 1 (FS1), April 2000)

ORTHOPEDIC IMPAIRMENT

Definition of Orthopedic Impairment

Orthopedic impairment means a severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

Cerebral palsy is an orthopedic impairment caused by damage to the brain, usually occurring before, during or shortly following birth.

Cerebral Palsy is considered an orthopedic impairment. "Cerebral" refers to the brain and "palsy" to a disorder of movement or posture. It is neither progressive nor communicable. It is also not "curable" in the accepted sense, although education, therapy and applied technology can help persons with cerebral palsy lead productive lives. It is not a disease and should never be referred to as such. It can range from mild to severe.

The causes of cerebral palsy include illness during pregnancy, premature delivery, or lack of oxygen supply to the baby; or it may occur early in life as a result of an accident, lead poisoning, viral infection, child abuse, or other factors. Chief among the causes is an insufficient amount of oxygen or poor flow of blood reaching the fetal or newborn brain. This can be caused by premature separation of the placenta, an awkward birth position, labor that goes on too long or is too abrupt, or interference with the umbilical cord. Other causes may be associated with premature birth, RH or A-B-O blood type incompatibility between parents, infection of the mother with German measles or other viral diseases in early pregnancy, and microorganisms that attack the newborn's central nervous system. Lack of good prenatal care may also be a factor. A less common type is acquired cerebral palsy: head injury is the most frequent cause, usually the result of motor vehicle accidents, falls, or child abuse.

Characteristics of Cerebral Palsy

There are three main types of cerebral palsy: spastic -- stiff and difficult movement; athetoid -- involuntary and uncontrolled movement; and ataxic -- disturbed sense of balance and depth perception. There may be a combination of these types for any one individual. Other types do occur, although infrequently.

Cerebral palsy is characterized by an inability to fully control motor function. Depending on which part of the brain has been damaged and the degree of involvement of the central nervous system, one or more of the following may occur: spasms; tonal problems; involuntary movement; disturbance in gait and mobility; seizures; abnormal sensation and perception; impairment of sight, hearing or speech; and intellectual disability.

Developmental, Educational, and Employment Implications for Students with Cerebral Palsy

Early identification of cerebral palsy can lessen developmental problems and lead to appropriate intervention when it helps the most. Early intervention programs are family-centered in which professionals and families work together with the child in specific activities. Educators, physical and occupational therapists, social workers, speech- language pathologists, psychologists and physicians can assist families by providing information and education.

Activities for children with cerebral palsy may include:

- speech and language therapy;
- occupational therapy;
- physical therapy;
- medical intervention;
- family support services;
- early education; and
- assistive technology.

As a child gets older and begins formal schooling, the intensity of services will vary from individual to individual. Persons with cerebral palsy are usually able to attain a substantial degree of independence but, in some cases, may need considerable assistance. Services for the school age child may include continuing therapy, general education or special education, counseling, technical support, community integration opportunities, recreation and possible personal attendants. A key factor seems to be a supportive family. Persons extensively affected by cerebral palsy can still be highly functional and independent. The HEATH Resource Center, the clearinghouse on postsecondary education for individuals with disabilities, states that a significant number of students with cerebral palsy are enrolled in colleges and universities.

Important advances have taken place in the last fifteen years which have had a great effect on the long-term well-being of children born with cerebral palsy. Advanced technology, including computers and engineering devices, has been applied to the needs of persons with cerebral palsy. Technological innovations have been developed in the areas of speech and communication, self-care, and adapted living arrangements and work sites. The future may bring even more significant applications.

Another important development has been the increased ability of persons with disabilities, including those who have cerebral palsy and other severe disabilities, to live independently in the community. Adults with cerebral palsy are now living, with or without assistance, in their own apartments or houses. Independent Living Centers have also proven to be important resources for persons with disabilities.

(NICHCY Fact Sheet Number 2 (FS2), April 2000)

Spina Bifida is another orthopedic impairment which means cleft spine. It is an incomplete closure in the spinal column.

Spina Bifida may be considered an orthopedic impairment. In general, the three types of spina bifida (from mild to severe) are:

1. **Spina Bifida Occulta:** There is an opening in one or more of the vertebrae (bones) of the spinal column without apparent damage to the spinal cord.
2. **Meningocele:** The meninges, or protective covering around the spinal cord, has pushed out through the opening in the vertebrae in a sac called the "meningocele." However, the spinal cord remains intact. This form can be repaired with little or no damage to the nerve pathways.
3. **Myelomeningocele:** This is the most severe form of spina bifida, in which a portion of the spinal cord itself protrudes through the back. In some cases, sacs are covered with skin; in others, tissue and nerves are exposed. Generally, people use the terms "spina bifida" and "myelomeningocele" interchangeably.

Characteristics of Spina Bifida

The effects of myelomeningocele, the most serious form of spina bifida, may include muscle weakness or paralysis below the area of the spine where the incomplete closure (or cleft) occurs, loss of sensation below the cleft, and loss of bowel and bladder control. In addition, fluid may build up and cause an accumulation of fluid in the brain (a condition known as hydrocephalus). A large percentage (seventy to ninety percent) of children born with myelomeningocele have hydrocephalus. Hydrocephalus is controlled by a surgical procedure called "shunting," which relieves the fluid buildup in the brain. If a drain (shunt) is not implanted, the pressure buildup can cause brain damage, seizures or blindness. Hydrocephalus may occur without spina bifida, but the two conditions often occur together.

***Educational
Implications for
Students with
Spina Bifida***

Although spina bifida is relatively common, until recently most children born with a myelomeningocele died shortly after birth. Now that surgery to drain spinal fluid and protect children against hydrocephalus can be performed in the first 48 hours of life, children with myelomeningocele are much more likely to live. Quite often, however, they must have a series of operations throughout their childhood. School programs should be flexible to accommodate these special needs.

Many children with myelomeningocele need training to learn to manage their bowel and bladder functions. Some require catheterization, or the insertion of a tube to permit passage of urine.

The courts have held that clean, intermittent catheterization is necessary to help the child benefit from and have access to special education and related services. Many children learn to catheterize themselves at a very early age. A successful bladder management program can be incorporated into the regular school day.

In some cases, children with spina bifida who also have a history of hydrocephalus experience learning problems. They may have difficulty with paying attention, expressing or understanding language, and grasping reading and math. Early intervention with children who experience learning problems can help considerably to prepare them for school.

Inclusion of a child with spina bifida into a school attended by nondisabled young people, sometimes requires changes in school equipment or the curriculum. Although student placement should be in the least restrictive environment, the day-to-day school pattern should also be as "normal" as possible. In adapting the school setting for the child with spina bifida, architectural factors should be considered. Section 504 of the Rehabilitation Act of 1973 requires that programs receiving federal funds make their facilities accessible. This can occur through structural changes (for example, adding elevators or ramps) or through schedule or location changes (for example, offering a course on the ground floor).

Children with myelomeningocele need to learn mobility skills, and often require the aid of crutches, braces, or wheelchairs. It is important that all members of the school team and the parents understand the child's physical capabilities and limitations. Physical disabilities like spina bifida can have profound effects on a child's emotional and social development. To promote personal growth, families and teachers should encourage children, within the limits of safety and health, to be independent and to participate in activities with their nondisabled classmates.

(NICHCY Fact Sheet Number 12 (FS12), April 2000)

OTHER HEALTH IMPAIRMENT

Definition of Other Health Impairment

Other health impairment means having limited strength, vitality or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia; and adversely affects a child's educational performance.

Epilepsy is a physical condition that occurs when there is a sudden, brief change in how the brain works.

Epilepsy may be considered a disability under Other Health Impairment. When brain cells are not working properly, a person's consciousness, movement, or actions may be altered for a short time. These physical changes are called epileptic seizures. Epilepsy is therefore sometimes called a seizure disorder. Epilepsy affects people in all nations and of all races.

Some persons can experience a seizure and not have epilepsy. For example, many young children have convulsions from fevers. These febrile convulsions are one type of seizure. Other types of seizures not classified as epilepsy include those caused by an imbalance of body fluids or chemicals or by alcohol or drug withdrawal. A single seizure does not mean that the person has epilepsy.

Characteristics of Epilepsy

Although the symptoms listed below are not necessarily indicators of epilepsy, it is wise to consult a doctor if you or a member of your family experiences one or more of them:

- "Blackouts" or periods of confused memory;
- Episodes of staring or unexplained periods of unresponsiveness;
- Involuntary movement of arms and legs;
- "Fainting spells" with incontinence or followed by excessive fatigue; or
- Odd sounds, distorted perceptions, episodic feelings of fear that cannot be explained.

Seizures can be generalized, meaning that all brain cells are involved. One type of generalized seizure consists of a convulsion with a complete loss of consciousness. Another type looks like a brief period of fixed staring.

Seizures are partial when those brain cells not working properly are limited to one part of the brain. Such partial seizures may cause periods of "automatic behavior" and altered consciousness. This is typified by a purposeful looking behavior, such as buttoning or unbuttoning a shirt. Such behavior, however, is unconscious, may be repetitive, and is usually not recalled.

***Educational
Implications for
Students with
Epilepsy***

Students with epilepsy or seizure disorders are eligible for special education and related services under the Individuals with Disabilities Education Act (IDEA). Epilepsy is classified as "other health impaired" if it adversely affects the child's educational performance. Then an Individualized Education Program (IEP) would be developed to specify appropriate services. Some students may have additional conditions such as learning disabilities along with the seizure disorders.

Seizures may interfere with the child's ability to learn. If the student has the type of seizure characterized by a brief period of fixed staring, he or she may be missing parts of what the teacher is saying. It is important that the teacher observe and document these episodes and report them promptly to parents and to school nurses.

Depending on the type of seizure or how often they occur, some children may need additional assistance to help them keep up with classmates. Assistance can include adaptations in classroom instruction, first aid instruction on seizure management to the student's teachers, and counseling, all of which should be written in the IEP.

It is important that the teachers and school staff be informed about the child's condition, possible effects of medication, and what to do in case a seizure occurs at school. Most parents find that a friendly conversation with the teacher(s) at the beginning of the school year is the best way to handle the situation. Even if a child has seizures that are largely controlled by medication, it is still best to notify the school staff about the condition.

School personnel and the family should work together to monitor the effectiveness of medication as well as any side effects. If a child's physical or intellectual skills seem to change, it is important to tell the doctor. There may also be associated hearing or perception problems caused by the brain changes. Written observations by both the family and school staff will be helpful in discussions with the child's doctor.

Children and youth with epilepsy must also deal with the psychological and social aspects of the condition. These include public misperceptions and fear of seizures, uncertain occurrence, loss of self control during the seizure episode, and compliance with medications. To help children feel more confident about themselves and accept their epilepsy, the school can assist by providing epilepsy education programs for staff and students, including information on seizure recognition and first aid.

Students can benefit the most when both the family and school are working together. There are many materials available for families and teachers so that they can understand how to work most effectively as a team.

(NICHCY Fact Sheet Number 6 (FS6), April 2000)

TRAUMATIC BRAIN INJURY

Definition of Traumatic Brain Injury

Traumatic brain injury means an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psycho-social behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

Characteristics of Traumatic Brain Injury

A traumatic brain injury (TBI) is an injury to the brain caused by the head being hit by something or shaken violently. This injury can change how the person acts, moves, and thinks. A traumatic brain injury can also change how a student learns and acts in school. The term TBI is used for head injuries that can cause changes in one or more areas, such as:

- thinking and reasoning,
- understanding words,
- remembering things,
- paying attention,
- solving problems,
- thinking abstractly,
- talking,
- behaving,
- walking and other physical activities,
- seeing and/or hearing, and
- learning.

The term TBI is not used for a person who is born with a brain injury. It also is not used for brain injuries that happen during birth.

Susan's Story

Susan was 7 years old when she was hit by a car while riding her bike. She broke her arm and leg. She also hit her head very hard. The doctors say she sustained a traumatic brain injury. When she came home from the hospital, she needed lots of help, but now she looks fine.

In fact, that is part of the problem, especially at school. Her friends and teachers think her brain has healed because her broken bones have. But there are changes in Susan that are hard to understand. It takes Susan longer to do things. She has trouble remembering things. She can not always find the words she wants to use. Reading is hard for her now. It is going to take time before people really understand the changes they see in her.

How common is TBI?

More than one million children receive brain injuries each year. More than 30,000 of these children have lifelong disabilities as a result of the brain injury.

What are the signs of TBI?

The signs of brain injury can be very different depending on where the brain is injured and how severely. Children with TBI may have one or more difficulties, including:

- **Physical disabilities:** Individuals with TBI may have problems speaking, seeing, hearing, and using their other senses. They may have headaches and feel tired a lot. They may have difficulty with skills such as writing or drawing. Their muscles may suddenly contract or tighten (this is called spasticity). They may have seizures. Their balance and walking may also be affected. They may be partly or completely paralyzed on one side of the body, or both sides.

- Difficulties with thinking: Because the brain has been injured, it is common that the person's ability to use the brain changes. For example, children with TBI may have difficulty with short-term memory (being able to remember something from one minute to the next, like what the teacher just said). They may have trouble with their long-term memory (being able to remember information from a while ago, like facts learned last month). Persons with TBI may have trouble concentrating and only be able to focus their attention for a short time. They may think slowly. They may have trouble talking and listening to others. They may also have difficulty with reading and writing, planning, understanding the order in which events happen (called sequencing), and judgment.
- Social, behavioral, or emotional problems: These difficulties may include sudden changes in mood, anxiety, and depression. Children with TBI may have trouble relating to others. They may be restless and may laugh or cry a lot. They may not have much motivation or much control over their emotions.

A child with TBI may not have all of the above difficulties. Brain injuries can range from mild to severe, and so can the changes that result from the injury. This means that it is hard to predict how an individual will recover from the injury. Early and ongoing help can make a big difference in how the child recovers. This help can include physical or occupational therapy, counseling, and special education.

It is important to know that, as the child grows and develops, parents and teachers may notice new problems. This is because, as students grow, they are expected to use their brain in new and different ways. The damage to the brain from the earlier injury can make it hard for the student to learn new skills that come with getting older. Sometimes parents and educators may not even realize that the student's difficulty comes from the earlier injury.

Educational Implications for Students with Traumatic Brain Injury

Although TBI is very common, many medical and education professionals may not realize that some difficulties can be caused by a childhood brain injury. Often, students with TBI are thought to have a learning disability, emotional disturbance, or intellectual disability. As a result, they don't receive the type of educational help and support they really need.

When children with TBI return to school, their educational and emotional needs are often very different than before the injury. Their disability has happened suddenly and traumatically. They can often remember how they were before the brain injury. This can bring on many emotional and social changes. The child's family, friends, and teachers recall what the child was like before the injury. These other people in the child's life may have trouble changing or adjusting their expectations of the child.

It is extremely important to plan carefully for the child's return to school. Parents will want to find out ahead of time about special education services at the school. This information is usually available from the school's principal, special education director or special education teacher. The school will need to evaluate the child thoroughly. This evaluation will let the school and parents know what the student's educational needs are. The school and parents will then develop an Individualized Education Program (IEP) that addresses those educational needs.

It's important to remember that the IEP is a flexible plan. It can be changed as the parents, the school, and the student learn more about what the student needs at school.

Tips for Parents

- Learn about TBI. The more you know, the more you can help yourself and your child.
- Work with the medical team to understand your child's injury and treatment plan. Don't be shy about asking questions. Tell them what you know or think. Make suggestions.

- Keep track of your child's treatment. A 3-ring binder or a box can help you store this history. As your child recovers, you may meet with many doctors, nurses, and others. Write down what they say. Put any paperwork they give you in the notebook or put it in a box. You cannot remember all this! If you need to share any of this paperwork with someone else, make a copy. Do not give away your original!
- Talk to other parents whose children have TBI. There are parent groups all over the U.S. Parents can share practical advice and emotional support. Call NICHCY (1-800-695-0285) to find out how to locate parent groups near you.
- If your child was in school before the injury, plan for his or her return to school. Get in touch with the school. Ask the principal about special education services. Have the medical team share information with the school.
- When your child returns to school, ask the school to evaluate your child as soon as possible to identify his or her special education needs. Meet with the school and help develop a plan for your child called an Individualized Education Program (IEP).
- Keep in touch with your child's teacher. Tell the teacher about how your child is doing at home. Ask how your child is doing in school.

Tips for Teachers

- Find out as much as you can about the child's injury and his or her present needs. Find out more about TBI.
- Give the student more time to finish schoolwork and tests.
- Give directions one step at a time. For tasks with many steps, it helps to give the student written directions.
- Show the student how to perform new tasks. Give examples to go with new ideas and concepts.
- Have consistent routines. This helps the student know what to expect. If the routine is going to change, let the student know ahead of time.
- Check to make sure that the student has actually learned the new skill.
- Give the student many opportunities to practice the new skill.
- Show the student how to use an assignment book and a daily schedule. This helps the student get organized.

- Realize that the student may get tired quickly. Let the student rest as needed.
- Reduce distractions.
- Keep in touch with the student's parents. Share information about how the student is doing at home and at school.
- Be flexible about expectations. Be patient. Maximize the student's chances for success.

(NICHCY Fact Sheet Number 18 (FS18), March 2000)

(Please cover the answers.)

Section Three: Overview of Disabilities – Autism, OI, OHI, and TBI

Self-Assessment Questions

- (Answers may vary – see page 26.)
- consistent predictable
- Cerebral palsy
- motor
- cleft
- shunting
- epilepsy
- traumatic brain injury
- different
- Name two characteristics that may be observed in children with autism:
 -
 -
 - The classroom environment for students with autism should be constructed so that the program is _____ and _____.
 - An orthopedic impairment caused by damage to the brain, usually occurring before or shortly after birth is called _____.
 - Cerebral palsy is characterized by an inability to fully control _____ function.
 - Spina bifida is an orthopedic impairment that means _____ spine.
 - Hydrocephalus is controlled by a surgical procedures called _____, which relieves the fluid buildup in the brain.
 - A disability under Other Health Impaired that is characterized by seizures is called _____.
 - A _____ is an injury to the brain caused by the head being hit by something or shaken violently.
 - When children with TBI return to their school, their educational and emotional needs are often very _____ than before the injury.

SECTION FOUR

Serving Students with Disabilities in Integrated Settings

Always think of the student as “a student first and the disability second”.

Each student’s disability is as unique as each sibling within a family. Characteristics between the disability areas may overlap. Though stereotypes exist in relation to each disability, there is no typical student with a learning disability, language impairment, intellectual disability, or other disability. It is important to recognize that an individual with a disability is always referred to as an individual first and the disability second. Students receiving special education services are referred to as “a student with a learning disability”, “a student with a language impairment”, and so forth. Each disability may range from mild to severe. This section of the module describes ways to assist students in their learning environments (Hammeken, 1996).

Paraeducator’s Role

The role of the paraeducator is determined by the student’s unique needs and the needs of the special education unit. As a paraeducator, you may work in the general education classroom with several students or be assigned to support an individual student throughout the day. The Individualized Education Program (IEP) identifies the unique needs of the student. The special education teacher will provide assistance and guidance to the paraeducator to help meet these unique needs. The general education or special education teacher is responsible for the direct instruction of students, whereas, the role of the paraeducator may be the reinforcement or reteaching of skills, behavior management, and curriculum support for the special education students.

Learning for all of us often entails risk... because it does, we value it more.

It is tempting, when working with students with disabilities, to be so protective that there is not an opportunity to fail. Sometimes, teachers and paraeducators work hard at making learning risk-free or error free, thinking they will bolster students by doing so. It is good to remember, however, that learning for all of us often entails risks. Because it does, we value it more. Opportunities for risk are a part of life and, as such, should be considered as a part of the life of an individual with a disability. Over-protectiveness is usually a deterrent to assisting the students toward full community participation.

When working with students in the classroom environment, it is important to be available to students but not to hover over them. In the early years, students enjoy individual assistance. At about nine or ten years old, students no longer want to appear different from their peer group. Though they may still desire special assistance, fitting in with their peers becomes more important. The primary responsibility of the paraeducator is to assist the student with special needs, but it is also important to respect and foster independence. Therefore, it is best to walk around the class and assist all students. In this manner, students begin to see you as an integral part of the class. There will be many students who would like your help. You may assist others, but always remember your area of primary focus is the student in special education (Hammeken, 1996).

Effective educators adjust instruction to the needs of their students. This requires constant monitoring of student achievement by getting a response or feedback to determine the current level of student academic progress (Hofmeister, 1995).

A paraeducator may assist with many different teaching strategies. Several of them are included in this section of the training module.

Task Analysis

Task analysis means breaking down a task into a sequence of component steps. These steps are taught separately. Then assessment is made of the student's performance on each step. When the student is able to do all of the steps, he or she should be able to perform the task. For example, when we teach a student to tie his or her shoe, we do not try to teach the entire process at once. We first teach him or her to tie a simple knot, then to make a loop with one lace, etc. When the student has accomplished all of the necessary steps in the proper order, he or she can tie a shoe.

The key to an individualized program is the manner in which the tasks are broken down. Most lessons are planned for the entire class and the tasks are broken into steps that are appropriate for the students in the general education classroom. The student with disabilities needs to have his or her tasks analyzed in a special way. Generally this means that the task must be broken into much smaller steps. If the student has an orthopedic impairment, the task will have to be analyzed so that his or her impairment is considered as each step is determined. It is often the responsibility of the paraeducator to adapt the lessons for the student with the disability. Therefore, the ability to analyze the task into its component steps is essential.

Prompting and Fading

Prompting means helping the student to respond correctly. There are two basic methods of prompting; **modeling** - demonstrating the correct response, and **cueing** - hinting at the correct response. When working with very low functioning students, you must first teach them to imitate behaviors.

Fading means to withdraw the help. Prompts should be faded gradually so the student continues to be successful. The teacher and paraeducator need to plan the systematic elimination of prompts, until the prompt is no longer necessary. The goal is to have the student perform the task without assistance. Fading too quickly could cause frustration and failure. Failing to recognize when the prompt should be faded wastes time and does not promote learning.

Providing Feedback to Students on Task Performance

Positive Reinforcement - Reinforcement is the event that immediately follows a behavior. In teaching any new skill, the response is the key to the student's learning. The following episode describes a learning situation:

The baby is making sounds as his mother plays with him. Mother says "Mama" and points to herself. The baby continues his babbling, but eventually says "Mama." When his mother hears this, she immediately gives him a big smile and a hug. The baby then repeats "Mama" several times and receives much attention for his efforts.

In teaching all skills, either academic or social, immediate feedback or reinforcement is essential, for that is how learning occurs. The reinforcement must immediately follow the correct response so that the student understands exactly what is being reinforced. If the reinforcement does not immediately follow the desired behavior the student can become confused.

How can you reinforce a behavior?

- Social Reinforcement
 - Verbally – “Good Job”, “I like that”, “That’s great”
 - Facial Expressions – smile, nod of head
 - Gestures – shake of hand, pat on the back

- Token Reinforcement
 - Happy Face
 - Stickers
 - Tokens

- Activity Reinforcement
 - Extra time on the computer
 - Time to use special games and activities

Reinforcement techniques are described in detail in Module 4: *Strengthening Behavior*, Section Five, pages 18-29.

An additional resource, *Inclusion, An Essential Guide for the Paraprofessional*, by Peggy A. Hammeken has been provided for each special education unit. This section of the module references many modification strategies that are outlined in this resource.

***Textbook
Modifications***

The majority of the students in special education encounter difficulty in the area of reading. Since reading encompasses an enormous portion of each school day, textbook modifications are critical if the student is to experience success throughout the school day. (Hammeken, 1996 -See modifications on pages 65-72.)

***Modification
of Daily
Assignments***

Daily assignments are used to verify the student's understanding of the concepts presented in the classroom. Students are often asked to respond in a written format, but this is not always possible for students with special needs. Some students feel overwhelmed, which, in turn, may result in extreme frustration and acting out behaviors. Modifications need to be made if the student is to be successful in the general education classroom. Often assignments can be completed orally, allowing extra time for remediation in other academic areas. If this is the case, use the time to reinforce previously taught skills. If other students within the classroom setting would benefit from reteaching or reinforcement, the classroom teacher may ask you to include these students within your group. (Hammeken, 1996 -See ideas for modifications on pages 73-75.)

***Written
Language
Modifications***

Written language is a complex process. Students may encounter difficulty with written language for many reasons. Some students have trouble transferring their ideas into a written format. Other students encounter difficulty with the grammar, syntax, or the mechanics of writing. Still others have expressive language limitations or trouble with the acquisition of language. If a student refuses to write, encourage all attempts. Focus on the ideas instead of the sentence structure and spelling. (Hammeken, 1996 - See modifications on pages 76-83.)

**Modifications
for Spelling**

Spelling words should be compatible with the reading level of the student. The special education teacher will assist with creating an appropriate list if the classroom list is too difficult. As with all modifications, spelling modifications may be simple or complex. Simple modifications may include the creation of an alternate spelling program. If the student is not developmentally ready for the formal spelling program, students can use the time to develop fine motor activities, letter formation, or sound/symbol relationships. (Hammeken, 1996 - See modifications on pages 84-90.)

**Modifications
for Mathematics**

The difficulties a student experiences in math may be directly related to auditory and visual processing, sequencing of steps, or rote memory. Math problems require multiple, sequential steps in order to produce the correct answer. Confusion often results from the numerous steps involved to complete one math problem. Students may forget one step in the process, therefore, the final answer is incorrect. Since math concepts build upon each other, a student who is unsure of basic addition, subtraction, or multiplication facts will not be able to complete a long division problem. The errors may not be with the actual process, but the student may consistently make factual errors. With basic math, some students with disabilities require the use of concrete materials such as manipulatives. For some students, it may only cause confusion due to the multiple steps. For example, when using manipulatives, the student must first complete the operation using the concrete materials. Once the student obtains an answer, the student must retain the answer in the short term memory in order to transfer the answer to paper. Since many students with disabilities have difficulty with short term memory, this is no easy task. (Hammeken, 1996 - See modifications on pages 91-97.)

**Organizational
Skills**

As a paraeducator you will assist students with organizational skills. Students with disabilities are often able to complete assignments when adapted to their specific needs, but may lose or misplace the completed work. Some students experience difficulty with organization of time and physical space. (Hammeken, 1996 - See organizational ideas on pages 98-100.)

**Processing
Directions**

Each day students must process hundreds of directions. Many students experience difficulty in school because they are not able to process directions. Inattention, difficulty with auditory processing, memory deficits, poor listening skills, limited receptive language, or inability to sequence information are only a few of the reasons. No matter what the root of the problem is, it can be a very frustrating experience for the student. (Hammeken, 1996 - See ideas for giving directions on pages 101-102.)

**Note Taking
Skills**

Note taking is a difficult process. It requires the student to process information both auditorily and visually. The student must then output the information in a written format. Students must be taught various strategies to take notes successfully. (Hammeken, 1996 - See ideas for note taking on pages 104-105.)

**Classroom
Assignments**

Many students require alternate forms of assessment due to difficulties with reading and written language. If the goal is to measure the student's knowledge of a curriculum area, it is important to test only the curriculum and not penalize the student for the disability. Since many students have difficulty with reading and writing, you may be responsible to read tests to some students or write answers for test questions as other students dictate them to you. (Hammeken, 1996 - See pages 106-107.)

Chapter 6, "Modification Strategies," in the resource, *Inclusion: An Essential Guide for the Paraprofessional*, provides many ideas to implement in the classroom. Since all students are unique, a successful modification for one student may not be applicable for another. Review the pages referenced in the above paragraphs to gain new ideas to assist students with disabilities experience successes in their educational environments.

(Please cover the answers.)

Section Four: Serving Students with Disabilities in Integrated Settings

Self-Assessment Questions

1. It is important to recognize that an individual with a disability is always referred to as an individual _____ and disability second.
first
2. When working with students in the classroom environment, it is important to be available to students but not to _____ over them.
hover
3. Breaking down a task into a sequence of component steps is called _____.
task analysis
4. Two basic methods of prompting are _____ and _____.
**modeling
cueing**
5. When help is gradually withdrawn, it is called _____.
fading
6. Reinforcement must _____ follow the correct response so the student understands exactly what is being reinforced.
immediately
7. The majority of students in special education encounter difficulty in the area of _____.
reading
8. The difficulties a student experiences in math may be directly related to auditory and visual processing, _____ of steps, or _____ memory.
**sequencing
rote**
9. Many students experience difficulty in school because they are not able to process _____.
directions