Speech or Language Impairments

Definition

Speech and language impairment is defined as a communication disorder that adversely affects the child's ability to talk, understand, read, and write. This disability category can be divided into two groups: speech impairments and language impairments.

Prevalence

Speech and language impairments are considered a high-incidence disability. Approximately 20% of children receiving special education services are receiving services for speech and language disorders. This estimate does not include children who receive services for speech and language disorders that are secondary to other conditions such as deafness. More than one-half (55.2%) of all 3-, 4-, and 5-year olds with a disability receive speech and language services.

Characteristics

Speech Impairments

There are three basic types of speech impairments: articulation disorders, fluency disorders, and voice disorders.

Articulation disorders are errors in the production of speech sounds that may be related to anatomical or physiological limitations in the skeletal, muscular, or neuromuscular support for speech production. These disorders include:

- Omissions: (bo for boat)
- Substitutions: (wabbit for rabbit)
- Distortions: (shlip for sip)

Fluency disorders are difficulties with the rhythm and timing of speech characterized by hesitations, repetitions, or prolongations of sounds, syllables, words, or phrases. Common fluency disorders include:

- Stuttering: rapid-fire repetitions of consonant or vowel sounds especially at the beginning of words, prolongations, hesitations, interjections, and complete verbal blocks
- Cluttering: excessively fast and jerky speech

Voice disorders are problems with the quality or use of one's voice resulting from disorders in the larynx. Voice disorders are characterized by abnormal production and/or absences of vocal quality, pitch, loudness, resonance, and/or duration.

Language Impairments

There are five basic areas of language impairments: phonological disorders, morphological disorders, semantic disorders, syntactical deficits, and pragmatic difficulties.

Phonological disorders are defined as the abnormal organization of the phonological system, or a significant deficit in speech production or perception. A child with a phonological disorder may be described as hard to
understand or as not saying the sounds correctly. Apraxia of speech is a specific phonological disorder where the student may want to speak but has difficulty planning what to say and the motor movements to use.

Morphological disorders are defined as difficulties with morphological inflections (inflections on nouns, verbs, and adjectives that signal different kinds of meanings).

Semantic disorders are characterized by poor vocabulary development, inappropriate use of word meanings, and/or inability to comprehend word meanings. These students will demonstrate restrictions in word meanings, difficulty with multiple word meanings, excessive use of nonspecific terms (e.g., thing and stuff), and indefinite references (e.g., that and there).

Syntactic deficits are characterized by difficulty in acquiring the rules that govern word order and others aspects of grammar such as subject-verb agreement. Typically, these students produce shorter and less elaborate sentences with fewer cohesive conjunctions than their peers.

Pragmatic difficulties are characterized as problems in understanding and using language in different social contexts. These students may lack an understanding of the rules for making eye contact, respecting personal space, requesting information, and introducing topics.

Impact on Learning

Speech and language disorders are problems in communication and related areas such as oral motor function. Delays and disorders may range from so subtle that they have little or no impact on daily living and socialization to the inability to produce speech or to understand and use language. Fortunately, only a very small percentage of children are at the most extreme of severity. However, because of the importance of language and communication skills in a child's development even mild to moderate disorders or disturbances can have a profound effect on all aspects of life, sometimes isolating children from their peers and their educational environments.

Teaching Strategies

As with all students who receive special education services, collaboration of a multi-disciplinary team is necessary. Students with speech or language disorders will receive services from many education professionals, including general education teachers, special education teachers, and speech-language pathologists.

Speech-language pathologists provide a variety of professional services aimed at helping people develop effective communication skills. These services may include:

- Helping children with articulation disorders to learn proper production of speech sounds
- Helping children who stutter to speak more fluently
- Assisting children with voice disorders to improve their voice quality
- Helping individuals with aphasia to relearn speech and language skills
- Assisting individuals who have difficulty swallowing as a result of illness, surgery, stroke, or injury
- Evaluating, selecting, and developing augmentative and alternative communication systems
- Enhancing communication effectiveness

The general education teacher should work with the speech-language pathologist to incorporate strategies to help the student generalize strategies mastered in speech therapy. This may include corrective measures, helping with speech and language exercises, and providing the student with immediate feedback when the speech-language pathologist is not present. The general education and special education teacher should both collaborate with the speech-language pathologist for interventions and teaching strategies.
Assistive Technology

For students with speech and language impairments, the major types of assistive technology can be divided into two areas.

First, students with speech and language impairments have an array of computer software packages available to develop their speech and language skills. An example is First Words, a language program that has a number of applications for teaching those who are developing or reacquiring language functions. The program uses graphic presentations combined with synthesized speech to teach high-frequency nouns, and is one of many software packages that can help develop both speech and language.

Secondly, students with speech and language impairments may use augmentative or alternative communication (AAC). AAC is the use of symbols, aids, strategies, and techniques to enhance the communication process. This includes sign language and various communication boards, both manual and electronic, that are used by individuals with impaired oral motor skills.

The most basic AAC devices are non-electronic communication boards. The boards usually are limited to a number of choices (two to four). The choices can be represented by real items, pictures of items, and symbols for items (including print). The objective of the communication board is to have the student make a choice, typically of food or activity. Electronic AAC devices range from very simple devices with few buttons (such as the Cheap Talk) to very elaborate systems that use a keyboard and synthesized speech (such as the Dyna Vox and Liberator).