Lecture 7

Book: Students with Learning Disabilities

Chapter 7: Oral Communication –Speech and Language

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Summary

Language is a "socially shared code or conventional system for representing concepts through the use of arbitrary symbols" (Owens, 2008). Terms such as 'specific language impairment', 'language delay' and 'language disorder' all refer to students who are having difficulty learning language at a normal rate in the absence of intellectual, sensory or emotional problems. A language disorder is impaired comprehension and/or emotional problems. Furthermore, the term 'aphasia' applies to a communication disorder in adults caused by brain damage and is characterized by complete or partial impairment of language comprehension, formulation and use. In children, there are 2 types of aphasia – i) acquired aphasia (children who have normal language development that is disrupted by cortical lesion, seizure or stroke resulting in language loss) and ii) developmental/ childhood aphasia (children whose language problems are believed to be caused by central nervous system dysfunction and who exhibit difficulty in their understanding or use of language.)

Components of Language:

- Phonology: Phonology is the system of rules that govern sounds and sound combinations, and a phoneme is a unit of sound that combines with other sounds to form words. The English language contains about 40 phonemes, classified as either vowels or consonants. Vowels are categorized as high, mid or low according to where they are produced in the mouth. The tongue may be moved up, down, forward or backward in producing vowels. Consonants are classified according to place and manner of articulation.
- Morphology: A morpheme is the smallest unit of language that conveys meaning. There are two types of morphemes. A 'bound morpheme' is one that may not stand alone (e.g. prefixes and suffixes) and they are either derivational or inflectional (derivational suffixes change word class; for e.g. the verb 'walk' becomes a noun 'walker', with the addition of the suffix –er. Inflectional suffixes change the meaning of a word, for

example, the addition of the inflectional –s to the word 'boy' changes the meaning to "more than one boy") . A 'free morpheme' is one that has meaning and may stand alone. Root words, for example, are free morphemes that can stand alone. Furthermore, there are 2 classes of words in language: content words and function words. Content words convey meaning when they stand alone, and they generally carry the meaning in sentences. Function words or connective words join phrases or sentences together.

- Syntax: Syntax is a system of rules that govern how words or morphemes are combined to make grammatically correct sentences. It is frequently referred to as 'grammar'. Rules of syntax specify word order, sentence organization, relationships between words and word classes or types, and other sentence constituents. Rules of grammar emerge between 18 and 24 months of age, as evidenced in a child's production of two word sentences.

- Semantics: Semantics refers to language meaning and is concerned with the meaning of individual words as well as the meaning that is produced by combinations of words. Receptive semantics refers to understanding language, whereas expressive semantics refers to producing meaningful discourse. Semantics has 3 categories: objects in general (cars, ball, mom etc.); actions in general (throwing, hitting, kicking etc.); and relations between objects (e.g. me and my puppy) or relations between events (e.g. causal relationship between going swimming and getting wet). The particular message is called the topic and the more general message is called the content.

- Pragmatics: Pragmatics refers to the use of language and includes the rules that govern the use of language for social interaction. It has two broad functions i.e. controlling or influencing the listener's action (e.g. "give me the doll") and influencing attitudes ("I think Jane would make a good class president"). "Communicative competence" refers to an individual's use of language based on an understanding of how language works in social interactions. The characteristics of the message that increase the likelihood that the message will be accepted as well as understood are referred to as "pragmatic presuppositions" e.g. tendencies to be polite and indirect in requests. Pragmatic presuppositions develop as a child matures and learns not to interrupt the speaker, talk at the wrong time, or speak too loudly for the situation.

Types of language disorders

- Phonological deficits: these students have difficulty mastering the speech sound system. They have poor inner representations of the sounds of language. Phonological awareness refers to an individuals' understanding of the sound structure of language. Acc. to Blachman (1995), more than 90% of children with reading problems have core deficits in phonological awareness. Furthermore, phonological short term memory refers to the capacity to hold incoming speech in short-term memory.

- Morphological deficits: Students who are delayed in morphological development may not use appropriate inflectional endings in their speech e.g. 's' on nouns or pronouns to show possession (mommy coat) or may not use 'er' on adjectives ("her dog is small than

mine"). Students with morphological problems may not acquire and understand the rules for word formation at the same rate and complexity as do their other peers. Disorders also include difficulties learning the language code and linking it to what already is known about the environment. Some differences are due to cultural and regional differences such as dialect.

- Syntactic deficits: Such children use sentences that lack the length or syntactic complexity expected for their age. For e.g. a 6 year old child with a delay may say "Where daddy go?" instead of "Where did daddy go?" Additional deficits include problems in comprehending sentences that express relationship between direct and indirect objects, negation or mood. They may have difficulty processing syntactic structures of increased complexity such as 'wh' questions, interrogatives and negative sentences.
- Semantic deficits: Developmental delay in word meaning (semantics) is observed in students who use or understand a limited no. of words. The limited vocabulary may be in specific areas such as adjectives, adverbs, prepositions, or pronouns. They may have difficulty retrieving or recalling a specific word (dysnomia). They may have problems understanding linguistic concepts (before/ after, if/ then, many, some, few etc.), perceiving logical relationships among words (e.g. comparative, possessive, spatial, and temporal), and comprehending verbal analogies (e.g. sandwich is to eat as milk is to drink). Students may misuse transition words (although, if, in addition etc.) and avoid making complex sentences and signaling logical relationships among arguments in sentences or sentence sequences.
- Pragmatic deficits: Delay in pragmatics is evident when students do not use functions that are expected for their developmental age. They may enter conversations in a socially unacceptable fashion or fail to take turns when conversing. Other problems include difficulty staying on topic during conversation, inappropriate facial expressions and body posture, immature speech and difficulty interpreting verbal and non verbal cues.

Culturally and linguistically diverse students: Salend and Fradd (1986) noted that bilingual students have the following needs

- Access to teachers who are proficient in English as well as in the students' native language.
- Use of nonbiased assessment and instruction to formulate appropriate individualized education programs.
- Exposure to curriculum and alternative instructional strategies that promote the academic and social relevance of instruction.
  Gersten and Woodward (1994) discussed two major instructional approaches for English language learners called "native language emphasis" where the student receives academic instruction in the primary language and the "sheltered English approach" where English is used for the majority of the teaching day. Students who exhibit normal production of

their own primary language or dialect should not be identified as having a language disorder. These students are simply producing an acceptable language variation. For students who require intervention, language interventionists should be sensitive to their cultures and language differences.

Assessment of language skills:

- Formal language assessment
  i) Screening tests: Students are given a speech and language screening test when they enter preschool or kindergarten. The screening provides a general overview of a student's performance in a particular area, which can be compared with the performance of a student of the same age or grade who is developing typically. Many school districts use standardized or formal screening instruments, whereas other districts devise informal assessment instruments to identify preschool and kindergarten students who may have potential language problems. Students who score below an acceptable level are usually referred for a comprehensive evaluation.
  ii) Diagnostic tests: Diagnostic tests measure one or more specific language components, including receptive or expressive language. Comprehensive tests measure a wide range of skills, whereas other diagnostic tests assess specific speech and language components. In a comprehensive diagnostic evaluation, it is generally advisable to administer a test that provides an overall view of the student's understanding or use of language. The specific test often is determined by the student's age or level of understanding. If the examiner notices that the student has difficulty formulation words and sentences, an additional test should be administered to measure the student's ability to understand and use words (e.g. test of word knowledge) or apply syntactic skills (e.g. Carrow Elicited Language Inventory). A test of phonology such as the Goldman-Fristoe Test of Articulation may be administered if the student's speech intelligibility is reduced.
- Informal language assessment: Informal assessment is often used to affirm or refute the results of formal measures and they are used to determine specific instructional objectives. Another common use of informal measures is to monitor a student's daily or weekly progress. Unlike formal measures which are designed to assess a student over a long period of time, informal measures lend themselves to daily or weekly assessment. The main goal of informal language assessment is to provide insight into how the student uses communication from a functional viewpoint in a variety of settings. Two types of progress monitoring assessment are curriculum based measurement (CBM) and curriculum based language assessment (CBLA). CBLA differs from CBM as it measures a student's speech, language and communication skills that are required to learn the school curriculum. CBLA evaluates the strategies the student employs to conduct curricular tasks.

Language delivery service models:

- Pull out model: The language specialist takes the students from their classes and instructs those with similar difficulties in homogeneous groups or provides one-on-one intervention. However, it can present various problems as the pull out model causes students to miss course work when they are out of the classroom. Furthermore, the language specialist is faced with numerous scheduling concerns such as from which subject and how often to pull the student as well as how to handle special events, tests and absences. The no. of students who are identified as needing services and the inability of schools to provide the intensity required by certain students compound scheduling problems further. Another problems includes fragmentation of services. As students generally are seen for therapy in a separate classroom, the services often are isolated from general classroom content and thus, may not be consistent with the classroom goals and expectations. By isolating services, students have fewer opportunities for interacting with peers and addressing social dimensions of language. On the other hand, the pull out model may provide a quiet, safe location, free from noise and distractions, that results in effective intervention services. To make intervention in a pull out model more effective, it should be paired with intervention in either a collaborative or a consultative model.
- Classroom based model: This model involves a new delivery of traditional services and may be used in an attempt to improve the services to students with language disorders and to integrate therapy goals with the student's academic needs. This model is often called the collaborative model. All classroom based models emphasize the need for collaborative consultation between the classroom teacher and the Speech Language Pathologist (SLP) so that resulting interventions are meaningful and relevant to natural occurrences in the classroom. In the collaborative service delivery model, the team members (SLP, teacher, parents and students) work together closely to plan and implement each student's educational program.
- Strategies based model: This model focuses on teaching specific language learning strategies to students and is appealing esp. to language specialists who work with middle and high school students. The use of strategies involves increasing the student's understanding and use of meta-cognitive and meta-linguistic skills. These skills focus on improving the student's awareness and use of strategies that enhance learning. A change is made from teaching students what to learn to teaching students how to learn. Deshler and Schumaker (1986) stated that the ultimate goal of learning strategies is to enable students to analyze and solve novel problems in both academic and non-academic settings. Their approach to teaching learning strategies to adolescents is based on 3 rationales:
  i) The development and application of learning strategies or meta-cognitive skills are appropriate for older students who are more proficient in these skills.
  ii) Adolescents who learn how to learn are in a better position to learn new skills in the future.

iii) Students should accept responsibility for their learning and progress.

Language teaching strategies:

- Modeling strategies: In these strategies, the student gives a response that is similar to that of a model. For e.g. the student observes the teacher modeling a rule several times before being required to use the rule. Within this strategy is the 'expansion model' which is a technique that can be used both by parents and teachers in language intervention. With this technique, the adult expands the child's response as in the following example: the child says "car go" and the parent or teacher immediately provides an expanded model, "the car is going". This technique can be used during play, or it can be incorporated into shared storybook reading.
- Phonological awareness interventions: Phonological awareness is an understanding that oral language can be broken into smaller units of sounds. Thus it is a robust predictor of later reading ability and is often a primary focus of intervention for young students with language learning disabilities. Examples of interventions include blending games (given small sound chunks, the student blends the sounds together to make the whole word) and segmentation games (given a whole word, the students break the word into smaller units of sound).