What Is Language?

Are Language Problems Common in Learning Disabilities?

What Are the Elements of Spoken Language and Characteristics of Students with Learning Disabilities in Spoken Language?

- Recreational Language
- Expressive Language
- Difficulties of Students with Learning Disabilities in Receptive and Expressive Language
- Phonology
- Syntax
- Morphology
- Semantics

Pragmatics

Metalinguistic Awareness

How Are Spoken Language Abilities Assessed?

- Standardized Assessment
- Informal Language Assessment/Interview
- Methods of Monitoring Progress

How Can Spoken Language Problems Be Addressed?

- General Principles and Accommodations
- Semantic Feature Analysis
- Keyword Mnemonics
- Teaching in Context and Conversation
- Phonemic Awareness
- Statement Repetition

Council for Exceptional Children

See Companion Website for detailed correlations between chapter content and Council for Exceptional Children Standards; www.ablongman.com/council

CEC Knowledge and Skills Discussed in This Chapter

1. Language, as part of the ability to understand and communicate, is part of the identification process in the learning disability label.
2. The effects of cultural diversity can influence language characteristics developed in typical and atypical human growth.
3. Language assessments and results interpretations, both formal and informal, which are individualized for appropriateness, unbiased accuracy, and instructional usefulness.
4. Systematic language instructional methods and resources, which are needed to facilitate appropriate educational services for individuals with learning disabilities.
5. The special education professional's responsibility to address the language concerns of children in special education classrooms who represent families from diverse cultures.

Students Who Experience Difficulties with Spoken Language

Jannette, his speech-language pathologist, has really pushed him along, and Jamal really has learned a lot about phonological matters already, but he has a long way to go yet.

Clinton Brown, Jamal's special education teacher

Spoken language—often considered a capability unique to humans—is the primary way that most of us communicate. We listen to what others say. We tell others what we have to say. We write to tell others what we have to say. We read what others have to say. Without language skills, we could not enjoy a stand-up comic's routine, listen to a play, explain an answer, or understand the lyrics for a song. Much of what happens in school is transmitted in spoken language: As in the case of reading and writing, much of what happens in school is transmitted in spoken language. Communication is the process participants use to exchange information and ideas, needs, and desires.

Communication requires language. Language is a socially shared code or conventional system for representing concepts through the use of arbitrary symbols and rule-governed combinations of those symbols (Owen, 2001). Communication can involve listening, speaking, reading, or writing or a combination of these. Much of academic learning is based on language. For Garton and Pratt (1998), "the mastery of spoken language and reading and writing" define the concept of literacy (p. 1), emphasis added. In this chapter, we examine spoken language as a means of communication and its interconnectedness with reading and writing.

What Is Language?

Language is extremely complex. It is made up of various modes (e.g., spoken or written) and linguistic elements. The linguistic elements are called paralinguistic, metalinguistic, and nonlinguistic elements. Paralinguistic elements are such things as intonation, stress or emphasis, speed of delivery, and pauses that add emotion or communication the process participants use to exchange information and ideas, needs, and desires.

Council for Exceptional Children

CEC Knowledge Check

After reading these definitions, develop your own definition of language.

LD/HS
Language Problems Common in Learning Disabilities?

Language problems are common in persons with learning disabilities, and this fact has been known throughout the history of the field. Influential figures such as Orton (1937), Kirk (1976), Strauss and Kephart (1955), and Johnson and Mitledstein (1967) emphasized the importance of language in their work (see also Chapter 1). Unfortunately, the emphasis at the time was on perceptual processes, and it took a long time for many in the field to realize the importance of language problems (Halstead & Cruickshank, 1973).

The neglect of language skills in the early development of learning disabilities was unfortunate for many reasons. First, because of the basic importance of language in everyday life, students' language difficulties should be a foremost target for remediation. Second, the need for language skills in virtually all areas of academic achievement means that these skills are crucial to success in school, perhaps more so than are perceptual processes. Third, estimates of the prevalence of disorders of spoken language among students with learning disabilities reveal that they are among the most common problems experienced by these students and that these problems have not been readily addressed.

Most definitions of learning disability today specifically emphasize language deficits (see Chapter 1). When discussing learning disabilities, authorities often note the special emphasis on language in these definitions:

A sizable body of research now indicates that, as a group, LD children are less skilled than normal achievers on a wide variety of phonological, semantic, syntactic, and...
Receptive Language

The first division in language is that of receptive and expressive language. Receptive language refers to the listener's behavior. In other words, how skilled is the listener in understanding what is heard? Except for those who communicate using sign language, people receive most language by hearing it. When receiving language, people not only hear it, but also must comprehend it. Comprehension of language is based on many complex and related skills. The process involves attending to the speaker and the speaker's delivery of language, hearing the specific sounds, identifying how the sounds go together, recognizing and understanding these groupings (e.g., words, sentences), and comprehending the message. Difficulties in any of these areas could mean a breakdown in communication.

Expressive Language

Expressive language refers to the production of language. Expressing ideas in language requires using many language abilities. When people express themselves, they not only use their ability to make sounds, but also make certain sounds in a specific order in order to create words, order the words to make phrases and sentences, and so forth. As is true with receptive language, expressive language can be broken into many parts, but the parts are actually closely connected.

Difficulties of Students with Learning Disabilities in Receptive and Expressive Language

With a student who is having difficulty with language, one of the first questions that can be asked is, “Does this student have problems primarily with receptive or expressive language?” By studying the language skills of students with learning disabilities, researchers have found that though some students have difficulty with both, most difficulties exist in the area of expressive, not receptive, language (Heather & Kitchen, 1980; Noel, 1980; Semel & Wig, 1975; Wong & Roadhouse, 1978).

Children who have difficulty expressing themselves may have several different problems. One is called dysnomia.Children who have dysnomia, which is also known as a “word-finding problem,” often seem to talk in fits and starts; they may stumble over words, rephrase what they are saying, or substitute the word thing for words they cannot remember at the moment (Kail & Leonard, 1986). Of course, most people do this sometimes; it only is recognized as a problem when it occurs especially frequently. A student with dysnomia might say, “Well, we had to take the, the big car...” or “That’s the point...” or “...and the van.” So, anyway, we went to... to, you know, groceries... that place where you get food and, you know, and we were, uh, you know, looking for shopping... shopping for things, you know, food and stuff and my mom wanted to, uh, get, uh, some... you put ‘em on your legs...”

Dysgraphia and apraxia are other expressive language problems. Both are difficulties with articulation—that is, the production of speech sounds. Students with dyslexia slur their speech and sound hoarse. Students with apraxia seem to be expressing language the production of language.

What Are the Elements of Spoken Language and the Characteristics of Students with Learning Disabilities in Spoken Language?

Many people use the terms speech, language, and communication interchangeably. This is unfortunate, because it can lead to confusion. For our purposes, speech is the physical production of sounds for communication. Language is a socially shared code with rules used to represent concepts. Communication is the process of encoding, transmitting, and decoding language to exchange ideas. It is important to keep these terms distinct when discussing language development and language difficulties.

Language can be divided into two major categories: receptive and expressive. It can be further subdivided into major elements: phonology, syntax, morphology, semantics, pragmatics, and metalinguistic elements. We describe each briefly and the problems students with learning disabilities may have with them. It is vital for teachers and others to understand the different elements so that they can identify specific areas of strength and weakness in a student's performance.
Phonology

What is it?

Phonology refers to the study of the sound system of language. Although we communicate with gestures or body language, most of our communication is based on the sounds we make when using expressive language (e.g., speaking) or the sounds we hear via receptive language. People can make many different sounds, but only some of them are used in each language. For example, English does not use the clicks as a part of speech, but some African languages do. Infants learn the unique sounds of their language from their environment. Although they can make all the sounds used in all languages when they are very young, they gradually stop making the sounds that are not used in the language they hear regularly in their environment.

A phoneme is the smallest unit of sound. As people talk, they exhale slightly and move the muscles in their mouths and throats to shape the escaping air and form phonemes. In English, there are 44 phonemes. Some of the sounds are not obvious, and, unfortunately, too few teachers are taught how to sound the system of English words (Moats, 2000). For example, the word six has three phonemes /s/, /i/, and /z/. But the words sing, thin, and thing also have three /s/, /i/, and /ŋ/. /h/ is a voiceless glottal fricative, and /ŋ/.

Phonological skills play an important role in acquisition of higher-order skills. For instance, facility with phonology influences children’s reading, which we discuss in Chapter 12 (e.g., Hulme, 2002; Schatschneider, Carlson, Francis, Poorman, & Fletcher, 2002).

How Does It Develop?

In infants, phonological development includes the child’s understanding of different combinations or patterns of sounds that convey differences in meaning, the development of the physical mechanisms for articulation, and the development of the auditory perception of differences in sound (Garten & Pratt, 1996). At birth, the infant cries. Starting with the birth cry, the infant engages in crying as a response to discomfort.

From about 3 to 6 months of age, infants engage in babbling. Authorities consider this stage as crucial for the later development of speech, because it causes changes in the infant’s environment (Eisenson, 1972; Owens, 2001; Sachs, 1989). It is important for children to learn that they can affect the environment by making noises. Infants learn this when adults, particularly parents, attend to and reinforce babbling.

Gradually, infants and young children learn to discriminate sounds they hear on the basis of their distinctive features (Menn & Stoll-Gammon, 2001). The first actual speech sounds children use are those that are highly discriminable. The reason children’s first words often are mama and papa or dada is because these words are composed of easily discriminable speech sounds (Menyk, 1972) and are most likely to be reinforced and shaped by attention and other social interactions with parents, siblings, and others.

Children’s development in phonology moves from words to multiple words to sentences and beyond. Early words are limited in their syllables and phonemes.

In this progression, the child frequently generalizes from one word to another. Thus, phonological development occurs with changes in the pronunciation of individual words. Some changes result in improved identification of structures and sounds, others in new skills of production, and still others in the application of new phonological rules governing production. (Owens, 2001, p. 271)

By age 6, children can identify syllables and master rules for pluralization. By age 7, they are able to recognize unacceptable sound sequences, and by age 8, they are able to produce all American English sounds and blends.

Problems with Phonology

Some problems with phonology involve production of speech and are referred to as articulation problems. Mastery of articulation requires the development of control over the muscles used in speaking but does not necessarily imply difficulties with understanding spoken language. Dysarthria and apraxia are examples of problems with the production of phonemes.

Students can also have problems with the reception of phonemes. This is referred to as auditory discrimination. One test of auditory discrimination would be to show a child pictures of a rake and a lake and then tell the child to touch the picture of a lake; in this way, one could tell whether the child hears the sounds correctly. Students demonstrate that performance on various auditory discrimination tasks is related to reading achievement in some children with language impairments (e.g., McArthur & Hogben, 2001; Weber et al., 2001). According to Ms. Hamilton, Jamal’s first-grade teacher, he often experiences problems with auditory discrimination.

Jamal is very worried that I think he’s got learning problems. At times, I will speak directly to Jamal at my desk or at his desk during an activity. It is apparent to me that he has confused some of the direction words and is therefore going in the wrong direction. For example, yesterday, he remained in his seat as we prepared to go to the music room. When I asked him why, he got very angry with me and said, ‘I’d told him to wait for the music teacher, not walk to the music teacher.’ This generally occurs when I say things quickly and the classroom is noisy.

What Are the Characteristics of Students With Learning Disabilities in Spoken Language?
According to the speech-language pathologist who evaluated Jamal:

Jamil has a couple of areas of weakness in phonology and phonemic awareness. First of all, he has difficulty following multistep directions. For example, if his mother asks Jamil to clean off the counters, feed the dog, and take out the trash, Jamil may only complete cleaning off the counters or he may jumble all of the tasks.

Second, Jamil has difficulty processing at the individual sound or even syllable level. For example, if you ask him to say the word cat slowly, pronouncing all of the sounds individually, he will not be able to do it.

Jennette Jones, Jamil’s speech-language pathologist

Syntax

What is It?

Syntax refers to the patterns or rules people use to put words together into sentences. It is roughly equivalent to grammar, but not grammar of the sort that is taught in schools. Syntax rules are not something that someone creates and others memorize; instead, these rules are understood implicitly by those who speak the language. In this sense, syntax refers to the way in which words can be arranged to create meaningful sentences.

People have an underlying understanding of language that gives them the ability to use different sentence structures to say the same things or very similar structures to say things with different meanings. For example, compare these two sentences:

Kids are faster than kittens.

Kids are not faster than kittens.

The syntax of these sentences differs in only one word, not. That difference, however, completely reverses the meaning of the sentence.

Understanding the syntactic structure of our language allows us to comprehend some parts of a message even when we do not know the words in it. For example, most adult speakers of English could answer the questions in Table 11.1 because they know enough about the syntax (and other aspects) of English to realize that exact word meanings are not required to deduce many of the ideas expressed by a speaker.

How Does It Develop?

Before the age of 3 or 4 years, children often use one-word utterances to stand for entire sentences. Then they begin to string words together in rudimentary sentences that omit nonessential words such as articles. For example, a child may say “All gone shoe” in place of the sentence “The shoe is not here.” Generally, by age 3 or 4,

they have mastered the sentence forms of subject-verb-object and subject-linking verb-complement. Development then begins within the sentence elements and at the sentence level.

In preschool children, noun phrase development occurs with the addition of articles and modifiers, the use of pronouns, the use of postnominal modifiers, the addition of relative clauses, and the use of several noun phrases in succession (Owens, 2001). In school-age children, noun phrases begin to include better choices of subject and object pronouns, the use of reflexives, and pronouns carried across sentences.

Verbs are also among the single-word phrases that children use. Children then develop the use of -ing verbs and some infinitive forms (such as goods, wants, hopeful). Auxiliary verbs show up first in the negative form (can’t, won’t, don’t). In the preschool and school stages of development, children speak of the here and now. All conversation relates to that reference point. As children develop, they speak of the past and the future. Children learn verb tenses and adverbs as they progress through school.

Children develop the basic understanding of sentence types (declarative, interrogative, imperative, and negative) early on, but knowledge of the complexity of each type develops slowly. Passive sentences are particularly difficult and not understood correctly until about the age of 5. Production occurs even later (Tager-Flusberg, 2001). Combining sentences and adding clauses (e.g., “I’m playing baseball with someone whom you know”) are higher levels of syntactic development that occur progressively throughout the school years.

Problems with Syntax

Many students with learning disabilities experience problems with syntax. For example, when the syntax of a sentence makes it ambiguous, those with learning disabilities are less likely to realize that it can be interpreted in more than one way (Wig, Semel, & Abele, 1981).
Some problems with syntax remain even after many years of schooling. For example, adolescents with learning disabilities may have difficulty understanding what a pronoun refers to (Payne, 1981) and are more likely to produce grammatically incorrect sentences. In addition, although their sentences become longer and more complex as they grow older, children and adolescents with learning disabilities still seem to use sentences that are simpler than those others use, and they continue to make more grammatical errors (Scott & Windsor, 2000).

**Morphology**

*What is it?*

Children learn not only the phonology and syntax of their language, but also how to change parts of words in ways that change meaning. For example, they learn that by adding an ending to most nouns, they can indicate more than one of that thing (e.g., girl + s = more than one girl). Morphology is the intraword rule system that affects the meanings of words.

For example, a morpheme is the smallest unit of meaning in a language. In the foregoing example of *girls*, there are two morphemes, one for the concept of "juvenile female" and one for the concept of "more than one," or "plural." Morphology is important not only in its own right but because it also provides important cues in reading and spelling.

*How Does It Develop?*

Children develop morphological rules at a young age, but the period of greatest acquisition is from ages 4 to 7 (Owens, 2001). Morphological development is related to cognitive development and the complexity of the morphemes. One example of a morphological rule is the addition of a letter to the end of a word to indicate that it is plural. Of course, some words do not follow the usual rules. The word *fish* may be both the singular and the plural form; the plural of *man* does not require the addition of a phoneme, but the change of one (the */t/* becomes an */t/* to make *men*).

Initially, children often mistakenly apply general rules to all examples and only later learn the exceptions. For example, in making plurals, a young child might say "three mans" but later learn to say "three men."

*Problems with Morphology*

Many students with language problems have difficulty with certain morphemes that indicate tense. Although their peers may have advanced to the level of adults, young children with difficulties continue to make mistakes with tasks such as adding an *-ed* to all past-tense verbs—for example, *runned* instead of *ran* (Rice & Wexer, 1996; Windsor, Scott, & Street, 2000).

As illustrated in Figure 11.1, the difficulties of students with learning disabilities often are particularly striking (Vogel, 1977; Wigg, Semel, & Crouse, 1973). These students have great difficulty:

- when the plural of a word requires adding a complex ending, such as *box, boxes*
Semantics

What Is It?

Like morphology, semantics deals with meaning. Semantics involves the study of the meanings of words and words in groups, particularly sentences. An example of semantics is understanding the meaning of the word speech in the following sentences:

The President's speech gave the country confidence.

The child's speech is difficult to understand.

In each sentence, speech can refer to one's speaking ability or to the delivery of a formal presentation or address. The listener is able to discern the intended meaning by using contextual clues.

How Does It Develop?

A child's initial lexicon, the words the child is able to use appropriately, includes words of one or two syllables, usually of the consonant-vowel or consonant-vowel-consonant-vowel type. These words are, generally, nouns that name objects in the environment at a general level of specificity (e.g., mommy, doggie, juice). The use of words is slow at first, and the child continues to use sounds that are close to but not quite words. By 18 months, children have a lexicon of approximately 50 words (Owens, 2001). The characteristics of adults' speech and the environment have an impact on a child's developing semantic knowledge (Pan & Gleason, 2001).

Children experience an explosion of new words during the preschool period, learning up to five new words per day between the ages of 18 months and 6 years (Owens, 2001). Initially, each word is seen as unique and in contrast to other words. Slowly, children begin to identify commonalities in terms (e.g., run and pan, book and look). Children gain new information from both linguistic and nonlinguistic contexts (e.g., listening and watching) and progress to understanding of physical relations, temporal relations (e.g., next, then, later), and locational prepositions (e.g., behind, on, under). In the school-age and adult stages, individuals continue to add words to their lexicon but develop more abstract understandings of these terms. This overall growth may be related to growth in cognitive processing (Garton & Pratt, 1998; Pan & Gleason, 2001).

Problems with Semantics

Vocabulary is an area of difficulty for many students with learning disabilities. In fact, research indicates the following:

- Large vocabulary differences exist between diverse learners and average achievers in terms of the number of words known and depth of word knowledge.
- Vocabulary differences between diverse learners and average achievers are apparent early and increase over time.
- Vocabulary knowledge of diverse learners needs to be addressed strategically and comprehensively if debilitating educational effects are to be avoided. (Kameenui & Carnine, 1998, p. 34).

In addition, students with language impairments have more difficulty than their normally achieving peers in using words to label pictures (McGregor, Newman, Reilly, & Capone, 2002) and acquire significantly fewer new words per year than average achievers (White, Graves, & Slater, 1990).

Many students with language disabilities have at least some problems with semantics. They may have difficulties understanding sentences in which an ambiguous word is used; for example, they may not realize that the sentence "He was drawing a gun" can have two different meanings (Wiig et al., 1981). Adolescents who have learning disabilities take longer and make more errors than their normally achieving peers when asked to name antonyms (e.g., told brother, they were to say sister) and make more errors when trying to define common words such as robin, bridge, and opinion (Wiig & Semel, 1975).

Jamal does not seem to have a poorly developed lexicon, as evidenced by what his speech-language pathologist reports:

Jamal has a well-developed vocabulary for his age. When asked to tell me what words like remember and animal mean, he gave me definitions that were more than superficial. For example, Jamal told me that animals could be both domesticated and wild.

Pragmatics

What Is It?

Pragmatics refers to the way in which language is used in social situations (Thompson, 1997). People alter how they speak, depending on whom they are speaking to, why they are speaking, and other factors. For example, most of us talk differently when conversing with our friends than we do when speaking in a class or visiting with our parents at a restaurant.

Most children use shorter and simpler sentences when talking to someone clearly younger than themselves than when talking to someone nearly the same age or older (Shatz & Gelman, 1973). Speaking in short, simple sentences might be insulating to some listeners, however. Thus, speakers must take into account the social situation when they speak, changing their language to fit. When people fail to adapt their language to fit social situations, they increase the chances that they will have social problems. As discussed in Chapter 7, social relations are often a problem for many students with learning disabilities.

How Does It Develop?

The preschool-age child learns much about pragmatics within the conversational context. By interacting with adults and others, the child begins to understand turn-taking and sticking to a topic, though only for brief periods of time. Also, the child learns to introduce new topics and slowly learns to take the listener's perspective or pragmatics the way in which language is used in social situations

Council of Exceptional Children

CC#20, CC#21, CC#22

What Are the Characteristics of Students with Learning Disabilities in Spoken Language?
understanding into account. Young children use conversation to control the environment or another person's behavior or to give information. They then begin to tell stories or narratives that start out on one topic but may change, depending on what they are thinking about at the time.

During school-age and adult development, children refine their use of language. Narratives develop centrality and causality, and an understanding of a specific story grammar develops. Conversational abilities—such as understanding the listener's perspective and introducing and continuing with topics—align with societal expectations. Of course, there is tremendous variability among individuals in development of these skills, and the pragmatic requirements may be different in different cultures, genders, and situations. Research indicates that development is linked to peer acceptance and behavior in schools (Ely, 2001).

Problems with Pragmatics

Problems with pragmatics represent one of the most important difficulties for students with learning disabilities. For example, students with learning disabilities also have problems providing descriptive information about objects. That is, they have difficulties describing something so that another person can select it from an array of choices. Also, many students with learning disabilities are less accurate in interpreting adult nonverbal cues, such as facial expressions and gestures, than their nondisabled peers and those with verbal learning disabilities (Petti, Yoder, Shore, & Hayman-Abello, 2002).

Mistakes in how they use language may lead to social problems for these students (as discussed in Chapter 7). For example, students who have learning disabilities use more competitive statements in their conversations with peers, but normally achieving students make more comments showing consideration (Bryan et al., 1976). Speaking competitively may cause hard feelings and even lead to arguments and fights. Thus, poor spoken language skills may be related to the social problems that students with learning disabilities experience (Camara, Hughes, & Ruhl, 1988). Students with language impairments aged 10 to 13 reported more negative statements about scholastic competence, social acceptance, and behavior than their nondisabled peers (Jeroni, Frijka, Britton, & James, 2002).

As we have noted throughout this text, not all students with learning disabilities are alike, nor do they all have the same characteristics. Jamal is a good example of this; whereas many students with learning disabilities have problems with pragmatics, he does not, at least according to his speech-language pathologist:

Jamal's understanding of the use of language is also well developed. In my observation of Jamal in the classroom, I joined a group of students already talking about basketball, invited for an opening in the discussion, and added his opinion about Kobe Bryant. The other students engaged with him.

--Jannette Jones, Jamal's speech-language pathologist

Metalinguistic Awareness

What Is It?

Metalinguistic awareness refers to our ability to think about language. It involves two components: the ability to analyze our own use of language and the ability to control attention to select and process specific linguistic information (Bialystok, 1993). Metalinguistic awareness includes phonemic awareness, word awareness, syntactic awareness, and pragmatic awareness. Because of its prominence in recent research and discussion, we examine phonemic awareness as an example.

Phonemic awareness includes "identifying and manipulating larger parts of spoken language, such as words, syllables, and onsets and rimes—as well as phonemes. It also encompasses awareness of other aspects of sound, such as rhyming, alliteration, and intonation" (Armbuster, Lehr, & Osborn, 2001, p. 4). Children can show that they have phonemic awareness in spoken language by creating oral rhymes, by identifying and working with onsets (beginnings of words) and rimes (endings of words), by identifying and working with syllables, and by identifying and working with individual phonemes. Research indicates that phonemic awareness is linked to reading competence (Lyon, 1999; National Reading Panel, 2000).

Problems with phonemic awareness are said to exist when children cannot separate words into their parts (sounds). Rhyming, for example, requires that the last sounds of a word be held constant while the first sounds are changed (e.g., book and clock). In another form of phonemic awareness, phoneme segmentation, students hear an entire word and say only part of it; for example, a teacher might direct students to say sound but omit the /l/ (leaving and). Skill in segmenting words into their constituent sounds is important in early reading achievement.

Problems with sound blending may also reflect children's difficulties with phonology. Sound blending—essentially the opposite of phonemic segmentation—is used to collapse separated phonemes into a whole. For example, the sounds /m/, /I/, /s/, and /l/ can be blended into the word mis. Poor readers have weaker sound-blending skills (Adams, 1990; Kail, 1986; Kavale, 1981; Richardson, DiBenedetto, & Bradley, 1977; Richardson, DiBenedetto, Christ, & Press, 1980).

Problems with segmenting, rhyming, and blending may all reflect deficits in working memory (see Chapter 8). To complete a segmenting, rhyming, or blending task, students perform a complex series of cognitive operations. As illustrated in Table 1.2 (page 340), they operate on a stream of sounds several times, exchanging information in and out of working memory and then generating the result.

How Does It Develop?

Again using phonemic awareness as an example, it is quite difficult to determine exactly how metalinguistic skills develop. Phonemic awareness involves both reflection on language and deliberate control of that reflection. It is not difficult to determine when a child can spontaneously reflect on language (e.g., "The cat in the hat—hey, that rhymes!), but it is more difficult to determine how and when this act is deliberate.

Tasks used to assess phonemic awareness—such as phoneme oddity (i.e., in a list of three words, which word ends or begins differently), tapping out sounds (i.e.,
TABLE 11.2: A Simple Illustration of How Memory Might Be Used in Creating a Rhyme

<table>
<thead>
<tr>
<th>STEP</th>
<th>OVERT ACTION</th>
<th>COVERT ACTION</th>
<th>REQUIRES WORKING MEMORY?</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hear word</td>
<td></td>
<td>yes</td>
<td><em>Think</em></td>
</tr>
<tr>
<td>2</td>
<td>Parse word into parts</td>
<td></td>
<td>yes</td>
<td><em>th</em> + <em>ing</em> + <em>k</em></td>
</tr>
<tr>
<td>3</td>
<td>Chunk parts for rhyming</td>
<td></td>
<td>yes</td>
<td><em>th</em> + <em>ink</em></td>
</tr>
<tr>
<td>4</td>
<td>Hold rhyming chunk in memory</td>
<td></td>
<td>yes</td>
<td><em>ink</em></td>
</tr>
<tr>
<td>5</td>
<td>Consider alternative sounds to prepend to <em>erk</em></td>
<td></td>
<td>yes</td>
<td>Hmmmm... does it work? How about <em>x</em>? How about <em>p</em>?</td>
</tr>
<tr>
<td>5a</td>
<td>Combine new sound with <em>ink</em> and compare result to dictionary of known words</td>
<td></td>
<td>yes</td>
<td>Sheesh, <em>fink</em></td>
</tr>
<tr>
<td>5b</td>
<td>Select new word</td>
<td></td>
<td>yes</td>
<td>How about <em>kink</em>?</td>
</tr>
<tr>
<td>6</td>
<td>Say word</td>
<td></td>
<td>yes</td>
<td>*Pink! Teacher. I know. I know! It's pink!</td>
</tr>
</tbody>
</table>

making notice of the sounds of the words, not individual letters), and phoneme segmentation (e.g., *cat* is "cuh aht")—involve interconnected skills and are influenced by whether or not the child has received reading instruction (Garton & Pratt, 1998). The general trend of development in phonemic awareness seems to begin with an awareness of rhyme. By becoming aware of sounds that similar children then begin to develop the ability to identify how they also sound different—meaning that their focus may shift to the beginning of the word. From here on, children begin to develop awareness of phonemes within words. With the onset of reading instruction, teachers draw children’s attention to the phonemes in words, and phonemic awareness increases (Garton & Pratt, 1998).

Problems with Metalinguistic Skills

Again, metalinguistic skills are the thinking about and manipulating of language. Phonemic awareness is included in metalinguistic skills as well as in processing language. According to Kame’enui and Carnine (1998), students with learning problems in language coding differ from their nondisabled peers in

- storing verbal language in memory (Students with learning problems use meaning or semantic codes, whereas nondisabled peers use sound or phonological codes.)
- using verbal information in working memory (Students with learning problems are less efficient in their use of verbal information to aid memory.)
- retrieving information from long-term memory (Students with learning problems "extract information more slowly, less accurately, and in less detail" than average achievers [p. 40].)
- using learning strategies (Students with learning problems may use similar strategies as average achievers but they use them less efficiently.)

In addition, many students with learning disabilities may have difficulties with phonemic awareness, which can lead to difficulties in mastering simple reading tasks (Adams, 1990; De die, Griffin, & Gough, 1986; Liberman, 1970; Liberman & Shankweiler, 1991; Tallar & Ellis, 1981). Research indicates that without specific intervention, these difficulties are stable over time (Wagner et al., 1997). Difficulties with phonemic awareness skills can impact many academic areas, but these difficulties can also be seen outside of school, as evidenced by this quote from Jamal’s grandmother.

**Jamal is a bit slower than his sister when playing word games. To pass time, I’ll say, “Tell me all the words you can think of that begin with s or h,” and he and his sister will shout over top of each other. When I say, “Tell me all the words you can think of that rhyme with see or bee,” Jamal is pretty quiet.”**

**Alice Brown, Jamal’s grandmother**

Jamal’s speech-language pathologist concurs that phonemic awareness is Jamal’s greatest area of weakness in oral language:

**He has difficulty in both segmenting and blending at the word level.**

**Janette Jonas, Jamal’s speech-language pathologist**

How Are Spoken Language Abilities Assessed?

Skills and deficits in spoken language are assessed by both standardized tests and informal measures. Language assessment should follow two basic premises: “The first is that to implement equitable assessments of language and communication in today’s global society, multi-cultural and multi-linguistic factors must be considered. Secondly, the process must embrace multi-dimensional and multi-perspective approaches” (Wigg, 2001, p. 247).

Standardized Assessments

If a student is suspected of having academic or behavioral difficulties in school that are language based, a speech-language pathologist should be involved in the evaluation of the student’s spoken language skills. (See the Effective Practices box on page 342) Because there are many tests developed to assess the aspects of language skills, the speech-language pathologist can help determine which to use and can administer the tests and interpret the results. The decision about how to assess language performance depends largely on the purposes of the assessment (see Chapter 3).
Speech-Language Pathologists

Who Are They and What Do They Do?

Students with learning disabilities in spoken language often receive services from speech-language pathologists. Though some speech-language pathologists provide student services within the classroom, students still "go to speech" in other settings. What the speech-language pathologist does is not always easy to discern for teachers, even though it is learned during speech services should be reinforced in the classroom. Therefore, the American Speech-Language-Hearing Association (ASHA), the major professional organization for speech-language pathologists, gives the following information about who speech-language pathologists are and what they do.

Nature of the Work

Speech-language pathologists are professionals concerned with evaluation, treatment, prevention, and research in human communication and its disorders. They treat speech and language disorders and work with individuals of all ages, from infants to the elderly. They diagnose and evaluate speech problems, such as fluency (e.g., stuttering), articulation, voice disorders, or language problems, such as aphasia and delayed language and related disorders, such as dysphagia (e.g., swallowing difficulties). They design and carry out comprehensive treatment plans to achieve the following:

- help individuals learn correct production of speech sounds
- assist with developing control of the vocal and respiratory systems or correct voice production
- assist children and adolescents with language problems, such as understanding and giving directions, answering and asking questions, understanding and using English grammar, using appropriate social language, and conveying ideas to others
- assist individuals who have had strokes or suffered other brain trauma-relearn language and speech skills
- help individuals to use augmentative and alternative systems of communication
- conduct individual with speech-and-language disorders and their families or caregivers to understand their disorder and to communicate more effectively in educational, social, and vocational settings
- advise individuals and the community on how to prevent speech-and-language disorders.

Educational Requirements

According to ASHA, speech-language pathologists must have a graduate education. They are also required by ASHA to obtain the ASHA Certificate of Clinical Competence (CCC), which involves the completion of a master's degree, a supervised clinical fellowship (CF), and a passing score on the examination. In most states, speech-language pathologists and audiologists also must comply with state regulatory (licensure) standards to practice and/or have state educational certification.

The American Speech-Language-Hearing Association (ASHA) represents 96,636 professionals. There are an estimated 42,000 additional individuals who are providing services in the profession.

Comprehensive Standardized Assessments

Children's general language competence and performance are usually assessed by measuring their IQ. Because intelligence tests rely heavily on language abilities, IQ can be a good indicator of verbal ability. This was thought to be particularly true with such IQ tests as the original Wechsler Intelligence Scale for Children, now the WISC-III (Wechsler, 1991), which has subtests designed to assess language performance (e.g., vocabulary).

Recently developed tests of general language ability are shown in Table 11.3. Many of these comprehensive tests, such as the Test of Language Development-3 (TOLD-3) (Hamill & Newcomer, 1997; Newcomer & Hamill, 1997), have become popular. The TOLD-3, and special versions of it for students of different ages, focus on assessing the major aspects of spoken language, including phonology, syntax, and semantics. Like the TOLD-3, many of the tests shown in Table 11.3 provide not only an overall language ability score but also scores in specialized areas.

Specific Standardized Assessments

As previously discussed, language includes the areas of phonology, syntax, morphology, semantics, and pragmatics. People who work with students who have learning disabilities may sometimes need to assess students' performance in one or more of these specific aspects of language. The comprehensive tests of language performance may help satisfy this need, but teachers may want to conduct more extensive, specific assessments.

Table 11.4 (page 344) lists some examples of tests of specific areas of language learning. The table does not list tests for each of the aspects of language learning but instead provides a brief overview of the tests' characteristics.

### Table 11.3: Selected Comprehensive Tests of Language

<table>
<thead>
<tr>
<th>TEST</th>
<th>AGE RANGE</th>
<th>AREAS ASSESSED (SCORES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test of Adolescent and Adult Language-3 (Hamill, Brown, &amp; Westphal, 1994)</td>
<td>12 years, 0 months to 24 years, 11 months</td>
<td>Listening, speaking, reading, written language, vocabulary, grammar, expressive language, expressive language, general language</td>
</tr>
<tr>
<td>Test for Auditory Comprehension of Language-3 (Carrow-Woolfolk, 1999)</td>
<td>3 years to 9 years, 11 months</td>
<td>Vocabulary, elaborated phrases and sentences, grammatical morphemes</td>
</tr>
<tr>
<td>Test of Language Development—3:Intermediate (Hamill &amp; Newcomer, 1997)</td>
<td>6 years, 6 months to 12 years, 11 months</td>
<td>Syntax, semantics, speaking, listening, spoken language, sentence combining, picture vocabulary, word ordering, general, grammatical components</td>
</tr>
<tr>
<td>Test of Language Development—3:Primary (Newcomer &amp; Hamill, 1997)</td>
<td>4 years to 8 years, 11 months</td>
<td>Phonology, syntax, semantics, speaking, listening, spoken language, organization (optional)</td>
</tr>
<tr>
<td>Test of Early Language Development—3 (Fryers, Reid, &amp; Hamill, 1999)</td>
<td>2 years to 7 years, 11 months</td>
<td>Receptive language, expressive language, spoken language quotients</td>
</tr>
<tr>
<td>Clinical Evaluation of Language Fundamentals—III (Semel, Wig, &amp; Secord, 1995)</td>
<td>6 years to 21 years, 11 months</td>
<td>Receptive language, expressive language, total language, word association, listening to paragraphs, rapid-automatic naming</td>
</tr>
</tbody>
</table>

### How Are Spoken Language Abilities Assessed?

[Continued on page 343]
The most difficult part of using language samples is scoring them. The first step is to transcribe the sample (transferring it to paper or computer disk) and segment it (mark off individual utterances or units of language). Then, the individual utterances must be analyzed. Some important measures for analysis are mean length of utterance (MOU), type-token ratio, and T-unit. Table 11.5 describes these measures. In addition, the sample can be analyzed for appropriate use of various language features, such as coupling segment of spoken language.

<table>
<thead>
<tr>
<th>TABLE 11.4</th>
<th>Selected Specific Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST</td>
<td>AGE RANGE</td>
</tr>
<tr>
<td>Phonology</td>
<td>2 years, 0 months and older</td>
</tr>
<tr>
<td>Phonemic Awareness</td>
<td>Grades 1-4</td>
</tr>
<tr>
<td>Roswell-Chall Auditory Blending Test</td>
<td>5 years to 8 years</td>
</tr>
<tr>
<td>Test of Phonological Awareness</td>
<td>4 years to 17 years, 11 months</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>2 years to 90 years</td>
</tr>
</tbody>
</table>

Informal Language Assessment Methods

Much can be learned about a student’s language competence in natural contexts. Teachers and other clinicians can collect and analyze at least three different types of student language samples: (1) spontaneous, (2) imitation, and (3) elicited (Salvia & Ysseldyke, 2001). Teachers obtain spontaneous language samples by recording the language a student produces in an unstructured, everyday setting. For an imitation sample, teachers ask students to directly repeat specific words, phrases, or sentences. In an elicited language sample, the teacher asks the student to look at a picture and either (1) point to the correct object, (2) point to the picture that best describes the sentence stated, (3) name the picture, or (4) describe the picture (Salvia & Ysseldyke, 2001).

To collect language samples, teachers should create a situation in which students can produce their best language performance, because it is important to know how well the student can do. With younger children, the teacher may want to use toys or activities to promote language, but with adolescents, using social situations is probably sufficient. Rather than asking many specific questions, teachers gathering language samples should use strategies that encourage the student to talk. The idea is to obtain a sample of student language that includes about 50 to 100 utterances (a segment of speech that expresses a complete thought). Teachers may want to record the sample on video- or audiotape. Here is a short example of Jamal working with Ms. Hamilton, his first-grade teacher, on using words:

Ms. Hamilton: Oh, Jamal, I would like you to use the words I give you in a sentence, What is it I want you to do?
Jamal: You want me to repeat words in a sentence?
Ms. Hamilton: I want you to use each word in a sentence. Here is the first word.
Jamal: I like cats.
Ms. Hamilton: Friend.
Jamal: I have a friend.
Ms. Hamilton: Store.
Jamal: I am going to the store this afternoon. My mom said I should buy me a new pair of shoes. I’m going to get some Air Jordans.
Ms. Hamilton: Running.
Jamal: Yesterday, my sister and I was running down the street to get some. We were late for dinner and that makes mom mad.

The mean length of utterance (MOU) average number of morphemes per utterance, type-token ratio is the ratio of the number of different words (type) to the total number of words (tokens) in a language sample. T-units are a single main clause and the subordinate clauses that accompany it.
Such as use of particular morphemes. Other sources provide additional and more detailed information about language samples and learning disabilities (Litz & Elliott, 2000; Wing, Leekam, Libby, Gould, & Laronche, 2002). Technology, such as speech-recognition software, may also help teachers assess a student’s learning ability. For an overview of assistive technology, see the Today’s Technology box on page 347.

**As for speech recognition software, it works the whole language, and the students are not in a noun-verb-noun format when they are not part of his recent experience.** When provided with words that are part of his recent experience, Jamil can think of quite a lot to say.

In addition to rhyming and phoneme segmentation, phonemic awareness includes other skills. Table 11.6 shows examples of different tasks that can be used in informal assessments of phonemic awareness. Evaluations of phonemic awareness should include both isolation of phonemes and phoneme deletion tasks.

**Methods of Monitoring Progress**

Plans for monitoring progress should be developed according to individual needs. For example, monitoring a student’s progress in phonemic awareness makes little sense when the primary language problems are in word knowledge. Decisions about which problem areas to monitor should be based on students’ evaluation results and subsequent IEP goals.

We can measure progress in some specific spoken-language areas by means similar to those used in curriculum-based assessment (CBA). As we discussed in Chapter 3, CBA involves frequently repeated measurement of specific skills. And phonemic awareness and receptive vocabulary are skills that can be monitored using curriculum-based assessment (CBA).

<table>
<thead>
<tr>
<th>TABLE 11.6</th>
<th>Tasks Used to Assess Phonemic Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASK</td>
<td>EXAMPLE</td>
</tr>
<tr>
<td>1. Sound-to-word matching</td>
<td>Is there a /f/ in cat?</td>
</tr>
<tr>
<td>2. Word-to-word matching</td>
<td>Do pen and pipe begin the same?</td>
</tr>
<tr>
<td>3. Recognition or production of rhyme</td>
<td>Does sun rhyme with run?</td>
</tr>
<tr>
<td>4. Isolation of a sound</td>
<td>What is the first sound in rose?</td>
</tr>
<tr>
<td>5. Phoneme counting</td>
<td>How many sounds do you hear in the word hot?</td>
</tr>
<tr>
<td>6. Phoneme counting</td>
<td>How many sounds do you hear in the word code?</td>
</tr>
<tr>
<td>7. Phoneme blending</td>
<td>Combine these sounds: /c/-/t/-/l/.</td>
</tr>
<tr>
<td>8. Phoneme deletion</td>
<td>What word would be left if /f/ were taken away from the middle of stand?</td>
</tr>
<tr>
<td>9. Specifying deleted phoneme</td>
<td>What sound do you hear in meat that is missing in meat?</td>
</tr>
<tr>
<td>10. Phoneme reversal</td>
<td>Say to your mother.</td>
</tr>
<tr>
<td>11. Inverted spellings</td>
<td>Write the word monster.</td>
</tr>
</tbody>
</table>


CBA. For example, teachers might construct lists of simple words and test how many of them students can segment correctly within two minutes. Similarly, to assess pragmatic use of language, teachers might simply observe students during particular activities and count the proportion of socially appropriate statements they make.

**How Can Spoken Language Problems Be Addressed?**

Intervention focused on the language problems of students with learning disabilities is influenced by several factors, such as the theoretical conceptions of language and more research is necessary (Okolo, Cavalieri, Ferretti, & MacArthur, 2000). One of the more important areas of recent research is that of speech-recognition software. Speech-recognition software has a variety of uses including command-and-control operations of various devices (e.g., dialing wireless phones, getting driving directions, dictating text into word-processing programs, and allowing access to documents or environments). Preliminary research has indicated that speech-recognition technology may be helpful in building conversation skills in second-language learners and in the assessment of language competence. Some students with learning disabilities, preliminary research has shown improvements in writing, word recognition, reading comprehension, and spelling (Venkatesan, 2002). With the rapidly changing world of technology, there is no learning that can be left behind (much) about using technology to assist students with language-learning disabilities.
Jamal’s Phonemic Awareness Skills

Jannette Jones, the speech-language pathologist who assessed Jamal’s language functioning, tested many aspects of his phonemic awareness; some using formal assessments such as the Test of Phonological Awareness and others using informal assessments based on her own knowledge about phonological skills. She comments that she was interested in his skills because he had so many other language skills but seemed to have highly specific problems in phonemic skills.

I don’t want to say that Jamal is one in a million, but he is special. He can talk about so many things, science and sports for example, but he really struggles with his phonological skills. It is really surprising to me. I gave him a whole battery of tests, and he had trouble with a lot of them.

Like most children with problems in phonological processing, he couldn’t segment and blend, but unlike other children, he couled exclusively even do it with syllables. He couldn’t even say the syllables in familiar words like bigger. Of course, he couldn’t do the harder tasks either. If I asked him to substitute sounds in words—if I asked him to say “stop” but to put an “e” in it instead of an “a,” he couldn’t do it. If I asked him to say “spit” and then say it without the “p,” he couldn’t do it. But I wasn’t worried so much about these harder tasks. I read an article about how we shouldn’t be so carried away with phonological skills. We need to focus on the ones that are really important for reading. So I looked mostly at his segmenting and blending skills.

Jannette Jones, Jamal’s speech-language pathologist

Blachman (1997) has done important research in phonemic awareness, and it is her work to which Jannette refers. Blachman wrote that the emphasis on phonemic awareness reminds her of an earlier emphasis on visual-motor competence in the field of learning disabilities. In both cases, the underlying skills (e.g., phonemic awareness) were focused on more than the overall goal (e.g., to read). In the visual-motor research, children were given some tasks that had a clear connection to handwriting; for example, they were asked to connect dots in general shapes such as T’s. They had also been given some similar tasks that went far beyond handwriting and required geometric drawing skills. The training tasks took the learners too far, warping their time by having them master oversophisticated skills. Blachman asks whether children have to learn the most sophisticated phonemic awareness skills to be able to learn to read.

How good do you have to be at phonological awareness activities to get the maximum advantage out of these important insights about the phonological structure of words? The ability to perform more complex manipulations (e.g., deletion and rearrangement of phonemes) is likely the result of learning to read and spell and of being able to visualize the orthographic structure as an aid in making complex phonological judgments. When does additional teaching of phoneme awareness per se stop being productive? Do you need to be able to say stable without the /t/? My clinical instincts suggest that once children are aware that speech can be segmented, and that these segmented units can be represented by letters, children should be engaged in reading and spelling instruction that utilizes these insights.” (Blachman, 1997, p. 410)

In the following section, we examine some basic effective practices for teaching spoken-language skills. Most of the methods address more than one area of language skill.

General Principles and Accommodations

Many students with learning disabilities in spoken language receive their instruction in the general education classroom. Therefore, it is important for both general and special educators to be aware of some basic principles and practices in teaching these students. After reviewing the research on spoken-language interventions, Bos and Vaughn (2002, p. 83) identify the following principles for teaching language:

- Teach language in purposeful contexts.
- In most cases, follow the sequence of normal language development.
Teaching English-Language Learners

In a review of the research on teaching English-language learners, Green and Baker (2000) found scant empirical evidence for instructional practices that lead to learning outcomes. The authors used information that is available from intervention studies using experimental designs, studies describing learning environments, and professional work groups composed of researchers, teachers, administrators, and staff development leaders to derive the following themes for effective English-language instruction:

1. "We identified five specific instructional variables or principles from our [multivocal analysis that, although supported by limited experimental evidence, suggest critical components for instruction]: (a) vocabulary; (b) written language; (c) listening and spoken language; (d) reading and written language; (e) the native language, and (f) mediation of cognition and language (Lemke, 1992)."

2. "We argue that both extended discourse about academic topics and broader responses to specific questions about content are cornerstones of academic growth for English-language learners. Our review of the instructional literature indicated that discussions of potentially relevant content are often avoided because of teachers' concerns about the semiotic nature of language learning, and because teachers have not been informed about the nature of academic discourse (Graves, 1990; Taylor, 1990; Vygotsky, 1978)."

In summary, there is much to learn about teaching the English language learners in special and general education. With the growing diversity in public schools, teachers must be aware of how their instructional practices can affect the language and literacy development of English-language learners."

Semantic Feature Analysis

Semantic feature analysis draws students' attention to features and meanings of words that make them unique. In addition to describing ways in which they relate to known words or concepts, the purpose behind the study of words or terms is to draw a link between the known and the unknown. The teacher must identify major terms or words that are necessary for students to understand and then determine how the words or terms fit together—in other words, what is the big idea that links them, and how are they similar and different? Finally, the teacher must develop an adequate list of examples and nonexamples of the understanding of the terms. See Figure 11.2 (page 352) for an example of a semantic feature analysis. The teacher will teach the students how to use this semantic feature analysis (Bos & Anders, 1990; Greenwood, 2002).

Keyword Mnemonics

Research indicates that the use of mnemonics with students with learning disabilities can be very powerful, particularly in teaching vocabulary (Lloyd, Forness, & Kavale, 1998). Keyword mnemonics technique involves the use of visual imagery and sound to link existing knowledge with unknown concepts or vocabulary and to provide a memory strategy to retrieve the information. (Mastroioppi & Scruggs, 1996).
Teaching in Context or Conversation

Following the assessment of students with learning disabilities in spoken language, we can identify specific language skills and activities designed to get students to use them. Table 11.7 (page 354) shows an analysis of the components of language that a task-analytic (or behavioral) approach might assess and teach. As the student uses these components, the teacher reinforces accurate usage and corrects mistakes. For example, if a student does not know the usual plural form of *man* (e.g., the student says "men" rather than "men"), the teacher might model the correct form ("Listen to me say it: *men*"). Provide the student with an opportunity to repeat it correctly ("How do you say it?"). Praise common usage ("That's it! *Men. You said it correctly*"). Provide opportunities for practice under different conditions to help the student remember the pronunciation. For example, while showing a picture of adult males, the teacher might say, "Tell me about these people. Are they boys? That's correct; they're not boys. What are they? Yes! They are men." Related morphological forms (e.g., women) would be assessed and taught as necessary.

In another approach, the teacher presents stories (arranged according to level of linguistic difficulty) and asks questions so that students must use various forms of sentences. Using the sentence that a student utters as a base, the teacher employs one of several techniques to encourage a more grammatically acceptable sentence. For example, when a student uses the wrong inflection of a verb in a sentence (e.g., "He eat bananas"), the teacher might do one of the following:

- ask the student to repeat the sentence ("What did you say?") in the hope that the student will then say it correctly.
- repeat the misspelled word ("He eat bananas") to encourage the student to correct the word.
- ask the student whether the statement was correct ("Is He eat bananas correct?") to encourage self-correction.

Another method to encourage acquisition of language is expansion. Expansion refers to an adult responding in an interpretive way to children's utterances. The adult expands on what a child says. For example, if the child says, "Doggie gone," the adult might say, "Yes, the doggie is gone." In this way, it is hoped that the child will learn the more grammatically complete form for the idea.

**Phonemic Awareness**

Recommendations about teaching phonemic awareness abound (Lyon, 1999; National Reading Panel, 2000). In the simplest form, training activities closely resemble those described previously in tests of phonology (see Table 11.7). For example:

**Teacher:** Listen to this word: fan. Say that word.
**Students:** Fan.
**Teacher:** Now I want you to say that word without saying the *f* sound.
**Students:** An!
**Teacher:** That's it! An. You've got it.
<table>
<thead>
<tr>
<th>TABLE 11.7 Content Analysis of Language Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SYNTAX/MORPHOLOGY</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>A. Syntax/Morphology</td>
</tr>
<tr>
<td>2. Regular plurals</td>
</tr>
<tr>
<td>3. Subject pronouns</td>
</tr>
<tr>
<td>5. Adjectives</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>10. Verb be copula</td>
</tr>
<tr>
<td>17. Wh-questions</td>
</tr>
<tr>
<td>18. Past tense</td>
</tr>
<tr>
<td>20. Irregular plurals</td>
</tr>
<tr>
<td>22. Auxiliaries</td>
</tr>
<tr>
<td>23. Derivational endings</td>
</tr>
<tr>
<td>25. Quasi-verbs</td>
</tr>
<tr>
<td>26. Conjunctions and, but, or</td>
</tr>
<tr>
<td>27. Conjunctions</td>
</tr>
<tr>
<td>29. Adverbs</td>
</tr>
<tr>
<td>30. Infinitives with subject</td>
</tr>
<tr>
<td>31. Participles</td>
</tr>
<tr>
<td>32. Gerunds</td>
</tr>
<tr>
<td>33. Passive voice</td>
</tr>
<tr>
<td>34. Complex verb forms</td>
</tr>
<tr>
<td>35. Relative adverb clauses</td>
</tr>
<tr>
<td>36. Relative pronoun clauses</td>
</tr>
<tr>
<td>37. Complex conjunctions</td>
</tr>
<tr>
<td>38. Verbs of the senses</td>
</tr>
</tbody>
</table>

**B. Advanced**

1. Reading material vocabulary
2. Content area vocabulary
3. Idioms/figurative language
4. Multiple meaning of words
5. Influence of context on meaning


In a popular variation, teachers give students tiles representing individual sounds and direct them to move one tile for each sound as they say the sounds in a word. (For further examples of phonemic awareness activities, see www.nationalreadingpanel.org: O'Connor, Notari-Svyerson, & Vada, 1998.) Regardless of the type of activity used, phonemic awareness training tasks can vary in difficulty (Moats, 2000). Teachers can adjust the difficulty of phonemic awareness tasks by varying the following:

- **word length** (Words with fewer phonemes are easier than longer words to manipulate.)
- **size of phonological unit** (Segmenting compound words is easier than segmenting syllables, which is easier than segmenting individual phonemes.)
- **position in the word of the phonemes to be manipulated** (Segmenting the first sounds is easier than segmenting the last sounds in words.)
- **characteristics of the phonemes** (Continuous sounds such as s and m are easier to segment than consonant clusters such as the first sounds in school.)

Teaching phonemic awareness is very important today. There are at least two important issues to know. First, "How do do you have to be at phonemic awareness activities ... to get the maximum advantage out of these important insights about the phonemic structure of words? ... When does additional teaching of phoneme awareness per se stop becoming productive?" (Blachman, 1997, p. 416). Second, although there is considerable evidence that promoting phonemic awareness has beneficial effects on reading and spelling for young students, there is much less evidence about its benefits for students in later elementary or secondary grades. Educators must be careful not to overgeneralize the evidence.

**Statement Repetition**

Another prominent problem for many children with learning disabilities is the repetition of sentences. We have known for a long time that students with learning disabilities do poorly on statement-repetition tasks (Heinsler & Kitchen, 1980; Hresko, 1979; McNutt & Li, 1980; Vogel, 1974; Wilg & Roach, 1975; Wong & Roadhouse, 1978). Statement repetition forms the basis for many other skills. Some of those skills are quite rudimentary; others are more complicated. The ability to repeat a statement itself is relatively simple; one must say only what one heard. However, statement repetition is fundamental, for without this skill, students cannot hold a statement in memory long enough to think about it, change it, or do much of anything else with it. As evidenced by the following comments of Jamal, statement repetition is not always an easy task:

*My mother and teacher are always asking me to repeat things to them. "What did I just say?" "What were those directions again, Jamal?" "What did I just ask you to do?" I don't like it much, but it helps me figure out what they're saying."

Jamal

---

**How Can Spoken Language Problems Be Addressed?**
Performance on statement-repetition tasks may be affected by many of the spoken-language skills described elsewhere. For example, pupils with weaker phonemic skills may have to work so hard at pronouncing words that when they try to say a complicated word, they forget the remainder of a sentence they are repeating. When this happens, it is easy to see why a student might simply shrug, sigh, and stop in mid-sentence. Statement repetition is clearly one of the skills required for successful learning and one in which many students with learning disabilities are deficient.

The following example illustrates how statement repetition might be used while practicing changing sentences to active voice.

**Teacher:** Say this sentence: The overdue books were lost by the teachers.

**Students:** The overdue books were lost by the teachers.

**Teacher:** Now, I want you to say that sentence in the active voice.

**Students:** The teachers lost the overdue books.

**Teacher:** That's it! Whoa! Now, wait a minute. Who are you saying lost those books?

As evidenced by many of these recommendations, instruction and practice in oral language skills can occur in the classroom context or almost anywhere quite naturally. The focus must be on getting the student to practice and generalize the skill to different settings.

**PORTFOLIO-BUILDING ACTIVITY**

**Demonstrating Mastery of the CEC Standards**

Use the following words to create teaching materials using the keyword mnemonics method to learning vocabulary (see Figure 11.3, page 352): dishka, viaduct, mandate, tore-ador, pomelo, jambeau, and hookah. See the Companion Website (www.ablongman.com/halahlanLD3e) for an example to follow. Questions to think about as you progress:

- How is language impacted in human development for children with learning disabilities when cultural diversity is a factor? Do these issues affect an individual's ability to learn?
- What research-based instructional strategies can be used to promote positive learning results in the area of language deficits for individuals with learning disabilities?
- How can special education professionals enhance language development for individuals with cultural and linguistic differences?
- How can professionals determine what content to be taught and what instruction methodology should be used to teach students with learning disabilities and language area concerns?

**SUMMARY**

What is language?

- Language is a socially shared code or conventional system for representing concepts through the use of arbitrary symbols and rule-governed combinations of those symbols.
- Speech is the physical production of sounds for communication.
- Communication is the process of exchanging information. It is very complex and includes encoding, transmission, decoding, and other linguistic elements.

Are language problems common in learning disabilities?

- Language problems are included in all definitions of learning disabilities and have been at the heart of the field since its inception. Unfortunately, in early years, much time was spent studying perceptual processes and not language difficulties.

What are the elements of spoken language and the characteristics of students with learning disabilities in spoken language?

- Receptive language refers to the listener's behavior: both receiving the information and understanding it.
- Expressive language refers to the production of language. In order to express ideas, people must be able to make sounds, place them in a certain order to create words, and put words together in a manner that makes sense.
- Students with learning disabilities show greater evidence of difficulties in expressive language areas.
- Phonology is the study of the sound system of language. A phoneme is the smallest unit of sound. Phonological skills are linked to achievement in reading. Students with learning disabilities often have difficulties in identifying sounds, segmenting and blending sounds, and in auditory discrimination.

How can spoken-language problems be addressed?

- General principles and accommodations for teaching language include teaching it in purposeful contexts, adapting pace, chunking information, checking for understanding, and increasing wait time.
- Semantic feature analysis draws students' attention to features and meanings of words that make them unique, thus increasing vocabulary and understanding.
- Keyword mnemonics provide a visual and auditory memory retrieval device for new and unfamiliar vocabulary and concepts. Pictures and familiar words are used to key into new vocabulary and its meaning.
Reflections on the Cases

1. In what areas of spoken language is the speech pathologist worried about Jamal's present level of performance?
2. How could these areas of weakness impact Jamal's achievement in other academic areas?
3. What are some areas of strength in spoken language for Jamal?
4. Which instructional strategies included in this chapter would use Jamal's strengths to help improve his overall spoken-language abilities?
5. If you had to write an IEP objective for Jamal in the area of spoken language, what would it be?

Focus On: Spoken Language

Do Now Activities for Increasing Vocabulary

Semantic Feature Analysis

What is it?
A semantic feature analysis (SFA) is a strategy used to increase a student's vocabulary. SFA assists students' semantic language by expanding their repertoire of words, connecting vocabulary to concepts, enhancing their ability to comprehend text, and creating a schema for memory. SFA is a recommended strategy for students with learning disabilities because of the limited vocabulary (numbers of words known and depth of word knowledge) of these students (Kame'enui & Carnine, 1998). Students with learning disabilities often experience difficulties in content area classes (e.g., science, social studies) because of their low vocabulary skills. By using words and features that most students are familiar with, the SFA will assist students in building their vocabulary, helping them consider how words and objects relate to each other.

How to implement it
SFA can be used as both before-reading and after-reading activity. When employing an SFA prior to reading a selection, teachers are preteaching critical vocabulary and concepts. When SFA is conducted as an after-reading activity, the analysis serves to crystallize and clarify key terms and concepts.

Additional Resources
Source: Kristin L. Sayeski