

AN INTRODUCTION TO CHILDREN WITH LANGUAGE DISORDERS, 3/e

© 2005

Vicki A. Reed

ISBN 0-205-42042-7

(Please use above number to order your exam copy.)

Visit www.ablongman.com/relocator to contact your local Allyn & Bacon/Longman representative.

S A M P L E C H A P T E R

The pages of this Sample Chapter may have
slight variations in final published form.

Allyn & Bacon
75 Arlington St., Suite 300
Boston, MA 02116
www.ablongman.com



CHAPTER

5

Adolescents with Language Impairment

PHOTO TO COME

OBJECTIVES

After reading this chapter you should be able to discuss:

- Academic, social, and vocational implications of unresolved language disorders in adolescence
- Reasons language-disordered adolescents remain a relatively neglected group professionally
- Aspects of language development during adolescence
- Characteristics of adolescents with language disorders
- Various strategies used to identify adolescents with possible language disorders
- Standardized and nonstandardized approaches for assessing adolescents' communicative performances
- Principles guiding the development of intervention objectives and programs for language-disordered adolescents

The developmental period known as adolescence is generally described as beginning at about 11–12 years of age and, in Western societies, continuing until 18–21 years of age, depending on which theory of adolescent development is being used. During these years, considerable cognitive, physiological, emotional, social, and educational changes occur. Language changes too, and the changes in language are affected by and affect other areas of development. When an adolescent experiences a language impairment, whether the impairment is severe, or whether it is less severe so that the adolescent's language is more likely to be shaky or, using Nelson's (1998) words, "almost but not quite" right (p. 223), the teenager is at risk for problems in all areas of development.

Much about adolescents with language disorders remains either unknown or empirically unvalidated, especially for those adolescents whose language problems exist in the absence of other conditions known to affect language, such as specific language impairment (SLI) described in Chapter 3 with regard to preschoolers. In fact, some readers may even be surprised to learn that there are adolescents with language disorders and that the extent of the problems associated with the population warrants an entire chapter devoted to this group of individuals. As we will see in this chapter, however, adolescents with language disorders do not constitute an inconsequential group, and the problems they encounter because of their language impairments are anything but inconsequential. Nevertheless, compared to the amount of work that is published regularly in speech and language journals and books about children with language disorders, much less appears in the literature about adolescents with language problems. This more limited information has some not so positive implications for those professionals trying to provide valid and accountable assessment and intervention services for these adolescents. Many adolescents with language disorders remain unidentified, unserved, underserved, and neglected (Apel, 1999a; Ehren & Lenz, 1989; Larson & McKinley, 2003). In this chapter, we discuss why this group is relatively neglected, aspects of language development during adolescence, problems related to language disorders in adolescence, and assessment and intervention factors that are particularly relevant to this group.

A Neglected Group with Significant Problems

The evidence continues to mount that problems associated with language disorders, in the absence of other conditions such as hearing loss, intellectual limitations, and physical disabilities, can persist into adolescence and even adulthood or can even emerge during adolescence (Aram et al., 1984; Beitchman, Wilson, Johnson, et al., 2001; Stothard et al., 1998; Tomblin et al., 1992). Evidence also continues to accumulate that indicates clearly adolescents' persisting language problems affect their personal relationships, academic success during junior and senior high school, choice of vocational and professional careers, and subsequent earning power (Beitchman, Wilson, Brownlie, Walters, & Lancee, 1996; Ehren & Lenz, 1989; Johnson et al., 1999; Snowling, Bishop, & Stothard, 2000; Snowling, Adams, Bowyer-Crane, & Tobin, 2000; Snowling, Adams, Bishop, & Stothard, 2001). That adolescents with language disorders typically perform poorly academically should come as no surprise because, as we have seen in the previous chapter, language ability is a well-recognized factor in students acquiring basic academic skills, skills that most obviously

include learning to read and literacy (Catts & Kamhi, 1999; Westby, 1998) but that can also include mathematical abilities (Fazio, 1994, 1996). In extending the effects of language problems on learning, it should also come as no surprise that these problems affect what, if any, postsecondary education is undertaken (Hall & Tomblin, 1978), and how well an individual copes and achieves in the workplace (Johnston & Packer, 1987; Naisbitt, 1988; Rukeyser, 1988).

Socioemotional difficulties are a significant issue for adolescents with language disorders. In earlier chapters we saw how problems with social interactions and even socioemotional difficulties are associated with specific language impairment in preschool years and language-learning disabilities in the earlier school years. These problems are seen in the difficulties students have in establishing and maintaining positive interpersonal relationships (Asher & Gazelle, 1999; Fujiki et al., 1996, Fujiki et al., 2002; Fujiki, Brinton, Hart, et al., 1999; Fujiki, Brinton, Morgan, & Hart, 1999; Gallagher, 1999). There are some indications that these students have difficulties with emotion regulation, a psychosocial issue that could be expected to affect interpersonal relationships (Fujiki et al., 2002), as well as other evidence that has begun to document a decline in their self-esteem as they mature and progress in school (Jerome et al., 2002). Along with the language disorder, these can persist across childhood and into adolescence (Hyter, Rogers-Adkinson, Self, Simmons, & Jantz, 2001; Whitmire, 2000). In fact, as Wiig (1995) points out, emotional, behavioral, or mental health issues, such as “mood disorders often escalate during or immediately after puberty” (p. 17).

In one study of the relationship between socioemotional problems and language abilities in older children and adolescents, 71 percent of the students (aged 8–13 years) in a school setting who had been identified as having mild/moderate behavioral disorders had language scores between one and two standard deviations (1–2 SD) below the means for the normative sample (Camarata, Hughes, & Ruhl, 1988). (Unfortunately, none of the students had had language evaluations prior to the data collection for that research project.) In other reports focusing on students with problem behaviors, Kaufman (2001) has suggested that these pupils demonstrate difficulties in relating to peers and in making and keeping friends, and Marcon (1998) found that for a group of high school graduates, their kindergarten language abilities differentiated those who had been identified on leaving high school as demonstrating significant maladaptive behaviors from those showing no significant maladaptive behaviors. As expected, those adolescents with the lower early language skills fell mostly into the maladaptive group. A 50–70 percent co-occurrence rate of emotional or behavioral difficulties in school-age children and speech and language problems has been suggested in some of the literature (Hummel & Prizant, 1993; Prizant et al., 1990), and in one study the proportion of children who had received treatment for behavior or emotional problems who also had language disorders ranged from 60 to 95 percent (Cohen, Davine, Horodezky, Lipsett, & Isaacson, 1993).

Not surprisingly, the problems adolescents have in establishing and maintaining positive interpersonal relationships frequently affect their relationships with their peers, teachers, and even with their parents and siblings. Difficulties with peer relationships are particularly concerning for adolescents, for whom having conversations with friends provides important sources of support and influences identity and group affiliation (Denton & Zarbatany, 1996; Hartas & Donahue, 1997). There is also evidence that, although the amount of time older children and adolescents spend talking with friends increases into the

teenage years, this increase seems not to replace the amount of time they spend talking with family members (Raffaelli & Duckett, 1989). These results suggest that, overall, teenagers spend more time in discourse with others, meaning that conversational abilities take on greater importance as children mature into adolescents and can have increasing implications for the quality of interpersonal relationships.

Teenagers with language impairments often demonstrate disruptive and negative forms of behavior, both in school and in their pursuits outside school. In most cases, however, an adolescent's language impairment will have first been recognized in the early school years or even in the preschool years, when the opportunity existed to identify early signs of concomitant socioemotional issues and foresee possible future problems. The fact that the language disorders of many adolescents would have first been identified before these individuals began school led Aram and colleagues (1984) to conclude that "language disorders recognized in the preschool years are only the beginning of long-standing language, academic, and often behavioral problems" (p. 240). Some of the academic, language, and social, emotional, and behavioral outcomes for adolescents with unresolved language disorders that showed up in follow-up studies of children who were identified as language impaired either in the preschool years or the early school years are summarized in Table 5.1.

Personal and Societal Costs of Adolescent Language Disorders

While a language disorder in adolescence potentially limits opportunities for an individual's personal, vocational, and economic self-realization, the problem is not just the individual's. It is also society's problem. Undereducation and underemployment are common outcomes of a language disorder. As a result, potentially valuable human resources and contributions are wasted. In some instances, rather than contributing to society as a self-sufficient adult when the underlying potential to do so may have existed, an individual with residual language problems takes from society.

Adolescents with language disorders are at risk for leaving school before earning their high school diploma, that is, dropping out. Table 5.2 shows data from the U.S. Department of Education (2001b) indicating the percentage of adolescents with speech or language impairments in the 1997–1998 and 1998–1999 school years who left high school with a diploma, a certificate, or either dropped out or otherwise left without receiving a formal credential. Because we know that a large number of adolescents labeled as having a specific learning disability have language impairments, data for this group of adolescents with a disability are also presented. As is evident, about 80 percent of the adolescents with speech or language impairments and about 62 percent of those with specific learning disabilities either dropped out or otherwise left high school without receiving a formal credential. (It is interesting to note that a higher percentage of students with speech and language impairments left school without a formal credential than students with learning disabilities.) In Western societies, these individuals are likely to have difficulty finding gainful employment, if any employment at all. Students who are at risk for dropping out or who have dropped out are more likely to be the individuals associated with juvenile delinquency, drug and alcohol abuse, and even youth suicide.

In adolescence, juvenile delinquency, youth suicide, and drug and alcohol abuse have been linked to deficits in basic skills, including speaking and listening abilities. A relationship

TABLE 5.1 Characteristics of Adolescents at Follow-up Who Had Language Impairments Identified in Their Preschool or Early School Years

Researchers	Age(s) of First Identification of Language Impairment	Age(s) at Follow-up Assessment	<i>Language Ability</i>
Aram, Ekelman, & Nation (1984) [Aram et al., 1984]	3;5–6;11	13;3–16;10	90% of subjects had language scores in moderately to profoundly delayed range
Hall & Tomblin (1978)	Mean ages: 6;1 language-impaired (LI) group 6;4 articulation-impaired (AI) group	Mean ages: 22;3 LI 23;0 AI	50% of LI continued to have language problems as adults; 5.5% of AI continued to have articulation problems
Weiner (1974) (case study)	4 years	16 years old	—Continuing semantic delay —Continuing morphological and syntax problems
Beitchman, Brownlie, Inglis, Wild, Ferguson, Schachter, Lancee, Wilson, & Mathews (1996) [Beitchman, Brownlie, et al., 1996] Beitchman, Wilson, Brownlie, Walters, Inglis, & Lancee (1996) [Beitchman, Wilson, et al., 1996] Beitchman, Wilson, Brownlie, Walters, & Lancee (1996) [Beitchman, Wilson, et al., 1996a]	5-year-olds	12;6 years old	Continued significant delays in receptive and expressive language performance
Tomblin, Freese, & Records (1992) [Tomblin et al., 1992]	Mean age: 8;6	Mean age: 21;6	Language-impaired (LI) young adults significantly poorer than the young adults without early LI for: —Receptive single-word vocabulary; —Use of well-formed sentences; —Confrontation naming speed; —Sentence imitation; speaking rate; —Interpreting agent-action questions for semantic acceptability; —Token test performance; —Word fluency

Characteristics at Follow Up

Reading and Academic Ability

Social/Emotional/Behavioral Characteristics

Other

—More than 50% of subjects below 25th percentile rank on reading and spelling measures
 —75% received special academic assistance*

From grades 3 through 12, LI scored significantly lower on composite scores of academic achievement tests than AI at each grade level except grade 3

—Second-grade reading level
 —Placed in work-study special education program in spite of normal nonverbal IQ

—Significantly lower educational achievement test scores than subjects without language impairment
 —About 50% had received special academic assistance

Greater prevalence of behavior problems than peers

Ignored/teased by teenage peers

—Increased risk/presence of psychiatric disorder in adolescence
 —Less participation in extracurricular non-sport activities and organizations
 —Behavior difficulties more apparent in school environment than at home
 —Rated as less socially competent
 —Links to externalizing and internalizing behavior problems

Less postsecondary education pursued/achieved by LIs than AIs

—LIs significantly poorer than the young adults without early LI for:
 —Oral and written spelling;
 —Reading comprehension;

Socioeconomic status of LI subjects' family based on their fathers' occupations lower than that of young adults without early LI

—LIs significantly poorer than adults without early LI for:
 —Auditory perception of rapid temporal information;
 —Performance IQ

(continued)

TABLE 5.1 Continued

Researchers	Age(s) of First Identification of Language Impairment	Age(s) at Follow-up Assessment	Language Ability
Conti-Ramsden, Botting, Simkin, & Knox (2001) [Conti-Ramsden et al., 2001]	7-year-olds	11 years olds	—Receptive and/or expressive vocabulary and/or morphology/syntax below 16th percentile rank; —88.5% still had low language scores (below 16th percentile rank)
Johnson, Beitchman, Young, Escobar, Atkinson, Wilson, Brownlie, Douglas, Taback, Lam, & Wang (1999) [Johnson et al., 1999] Beitchman, Wilson, Johnson, Atkinson, Young, Adlaf, Escobar, & Douglas (2001) [Beitchman, Wilson, Johnson, et al., 2001]	5-year-olds	19-year-olds	—Continued significant delays in receptive and expressive language performance (means below -1 SD) —Only 50% had received speech/language intervention, even in early school years
Stothard, Snowling, Bishop, Chipchase, & Kaplan (1998) [Stothard et al., 1998]	3;9–4;2 Retested at 5;6 years & groups formed, among them: —“Resolved” language delay at 5;6 years —“Persistent” language impairment at 5;6 years	15–16 years	—Persistent language-impaired group: all measures below -1 SD and several approaching -2 SD level —Significant decrease in vocabulary between 8 and 15 years of age —“Resolved” language delay group: most measures at lower end of normal range; significantly lower than control group (normal language) on 4/8 measures

between juvenile delinquency and adolescent language disorders is only beginning to be documented in the literature, even though there has been some degree of awareness of a link between communication disorders and adult prison populations for several years (ASHA, 1973; Bountress & Richards, 1979; Castrogiovanni, 2002; Crowe, Byrne, & Henry, 1999; U.S. Department of Education, 1999). A comparison of the oft-cited characteristics of adolescents at risk for juvenile delinquency or those already in detention and the characteristics

Characteristics at Follow Up

*Reading and Academic Ability**Social/Emotional/Behavioral Characteristics**Other*

—Two-thirds below the normal range on single-word reading
 —80% below normal on a reading comprehension

Significantly poorer reading, spelling, and maths test scores than subjects with no language impairment at 5 years of age

—Elevated rates of anxiety disorder (social phobia the most common anxiety disorder)
 —Likelihood of antisocial personality disorder

~ 25% showed declines in nonverbal IQ to levels below normal

—For language-impaired subjects, a decline in performance IQ with advancing age into early adulthood

—Persistent language-impaired group: 95% scored below 12-year level for reading and spelling; performances at -2 SD level; 50% received no special academic assistance, 30% tutoring, and 20% placed in special classes/schools

—“Resolved” language-delay group: 52% scored below 12-year level for reading and spelling; performances mostly at lower end of normal range

—For persistent language-impaired group, a decline in nonverbal IQ between “normal nonverbal IQ in preschool years to ~50% with scores below -1 standard deviation

*“Special academic assistance” consisted of special education services, tutoring, remedial instruction, and/or special classroom/special school placement.

commonly associated with adolescents with language disorders shows considerable overlap and correspondence. For example, some of the characteristics that have been attributed to juvenile offenders, or those at risk for juvenile delinquency, include difficulties with interpersonal and social relationships, problems with emotional control, poor academic achievement including reading and writing difficulties, presence of learning disabilities, specific phonological deficits, and discrepancies between verbal IQ and nonverbal IQ scores, with

TABLE 5.2 Different Types of Credentials Adolescents with Speech–Language Impairments and Specific Learning Disabilities Left High School with in the 1997–1998 and 1998–1999 School Years

Type of Credential on Leaving High School	Types of Disability	
	<i>Speech–Language Impairments</i>	<i>Specific Learning Disabilities</i>
Left with a diploma		
1997–1998	17.5%	33.1%
1998–1999	19.7%	33.5%
Left with a certificate		
1997–1998	2.2%	4.5%
1998–1999	2.3%	4.6%
Left with no credential		
1997–1998	80.3%	62.4%
1998–1999	78%	61.9%

Source: U.S. Department of Education (2001b).

nonverbal scores better than verbal scores (Archwamety & Katsiyannis, 2000; Austin & Foley, 2001; Bigelow, 2000; Kirk & Reid, 2001; Marcus, 1996; Meltzer, Roditi, & Fenton, 1986; Schwartzman & Ledingham, 1992; Snowling, Adams, et al., 2000; U.S. Department of Education, 1999; Williams & McGee, 1994). According to Svensson and colleagues (2001), over 50 percent of youths in juvenile detention centers have significant reading or written-language problems. Doren and colleagues (1996) examined what factors of students with disabilities predict their arrest. Their results indicated:

- Students with specific learning disabilities were almost four times more likely to be arrested than other students with disabilities.
- Students with poor social and/or personal adjustment were 2.3 times more likely to be arrested than other students with disabilities.
- Students with disabilities who leave school without graduating were almost six times more likely to be arrested than other students with disabilities.

This last factor can be considered together with the information we saw in Table 5.2 about the percentages of adolescents with speech–language impairments who leave high school with no credential. The characteristics attributed to juvenile offenders are logically not independent of each other but rather interrelated, for example, poor reading and academic achievement, verbal/nonverbal IQ discrepancies, and a diagnostic tag of learning disabled. Many of these characteristics sound remarkably like attributes of children and adolescents with language disorders.

A small body of literature directly links juvenile delinquency and adolescent language disorders. A report of the U.S. Department of Education (1999) indicated that 3 percent of the young people in detention centers had speech or language impairments and

another 45 percent had a specific learning disability. More specifically, Sanger and colleagues (Davis, Sanger, & Morris-Friehe, 1991; Sanger, 1999; Sanger, Hux, & Belau, 1997; Sanger, Hux, & Ritzman, 1999; Sanger, Moore-Brown, & Alt, 2000; Sanger, Moore-Brown, Magnuson, & Svoboda, 2001) have reported on various language abilities of male and female juvenile offenders. Their work has documented that the juvenile delinquent subjects in their studies

- Had poorer standardized language test results compared to nondelinquent adolescents
- Produced less complex language samples compared to nondelinquent adolescents
- Exhibited difficulties with sequencing ideas
- Showed problems with pragmatic skills that included poor topic initiation and topic maintenance, inconsistent use of politeness techniques, and variable application of rules governing conversational interactions either because there were deliberate intentions to violate the rules, or because the language resource demands required during the flow of conversations exceeded the adolescents' abilities to maintain appropriate use of rules.

Although there is evidence for an association between adolescent language impairment and juvenile delinquency, the evidence is not particularly well known, heeded, or utilized. The lack of awareness about the association of language and juvenile delinquency is demonstrated by findings, for example, that only a small proportion of incarcerated adolescents are likely to have received special education during their school years prior to their difficulties with the law, and where services were provided these tended to be for learning disabilities or behavioral disorders rather than language difficulties (Sanger, Creswell, Dworak, & Schultz, 2000; Sanger et al., 2001). None of the juvenile delinquents in these two studies had received language services prior to incarceration, even though evaluation of their language skills while in juvenile detention indicated that a considerable number of them had language impairments.

Not heeding and/or acting on evidence of the possible relationships between juvenile delinquency and language impairment can be costly. For example, Larson and McKinley (2003) reported on a 1993 speech that the then Governor of Minnesota, Arne Carlson, made in which he cited the figure of \$500,000 as the cost to that state for each youth who dropped out of high school, obtained welfare for five years, then committed a major crime for which he or she was incarcerated for twenty years. He contrasted this figure with the scenario in which the same youth remained in high school and graduated, proceeded to obtain technical training, and then earned about \$500,000 by working for twenty years at an annual average salary of \$24,000, a level of productivity that would have contributed to the state in a variety of ways. Governor Carlson pointed out that the difference for this individual was \$1,000,000, which would be the difference for each adolescent at risk for dropping out who was able to remain in school, graduate, and then work. Governor Carlson's figures were probably on the conservative side even for 1993 and would certainly be low in terms of today's dollars.

There is another potential personal and societal cost of adolescent language disorders that has also not been well documented or recognized. This is the possible relationship between language disorders in adolescence and youth suicide. Larson and McKinley (2003) reported that, of the individuals aged 10–14 years old involved with the Los Angeles Suicide

Prevention Center, about half had learning disabilities. From our understanding of language and learning disabilities, we would justifiably suspect that most of these adolescents had language impairments. Given the socioemotional problems associated with language disorders in adolescence, a possible relationship between adolescent language disorders and youth suicide should not be particularly surprising.

Although the risk factors for youth suicide are far from delineated, agreed on, and empirically validated in the literature, a number has been suggested. Among these are:

- Psychosocial and socioemotional disorders, including affective disorders, and social skills problems, including low social competence disorders (Beautrais, 2000; Grosz, Zimmerman, & Asnis, 1995; King et al., 2001)
- Depression (Jones et al., 1999; O'Carroll, Crosby, Mercy, Lee, & Simon, 2001)
- Problem-solving difficulties, learning disabilities, and the correlates of learning disabilities such as impulse behaviors and, as we know, problematic social skills (Bender, Rosenkrans, & Crane, 1999; Grosz et al., 1995)
- Substance use and abuse (Beautrais, 2000; King et al., 2001)
- Unemployment issues (Gunnell et al., 1999; Lewis & Sloggett, 1998)

These factors, like the situation with juvenile delinquency, are ones frequently associated with adolescents with language disorders. There is also some evidence of a link between suicide and juvenile delinquency. In one study, 63 percent of youths who committed suicide had a record of involvement with juvenile justice (Gray et al., 2002). Social skills difficulties and peer-relationship problems that we see in adolescents with language disorders might also be implicated in the results of a study conducted by Massa and Eggert (2001), a study that was not specifically about language impairment or language ability. These investigators examined the weekly activities of adolescents at risk for suicide compared to those of non-suicide-risk peers and found that the at-risk teenagers spent more of the weekday and weekend time in solitary activities. Results such as these suggest that social isolation from peers may be a factor in youth suicide. As a possible link between teenage suicide and language problems, Asher and Gazelle (1999) suggest that youths with language impairment are at risk for experiencing loneliness as one of the "negative emotional consequences of peer relationship problems" (p. 20). Previously, we also noted emerging evidence that as school children with language impairment progress through school, their self-esteem falls. Jerome and her co-researchers (2002) found that older students with language impairment "perceived themselves more negatively in scholastic competence, social acceptance, and behavioral conduct than did children with typical language development" (p. 700). This contrasts with younger school children with and without language impairment, who did not differ in how they perceived themselves in these areas.

Figure 5.1 illustrates some of these possible links between youth suicide and adolescent language impairment. While links between adolescent language disorders and youth suicide are currently tenuous, unclear, and inexact, there seem to be sufficient cues from the literature to be suspicious that stronger links might be present but yet unexplored and unidentified. It would, however, seem worth the time and energy of professionals who work with teenagers with language disorders to be alert to signs of potential self-harm.

Links between substance (drug and alcohol) abuse and adolescent language impairment are, as with youth suicide, currently tenuous links, although there are reasons to sup-

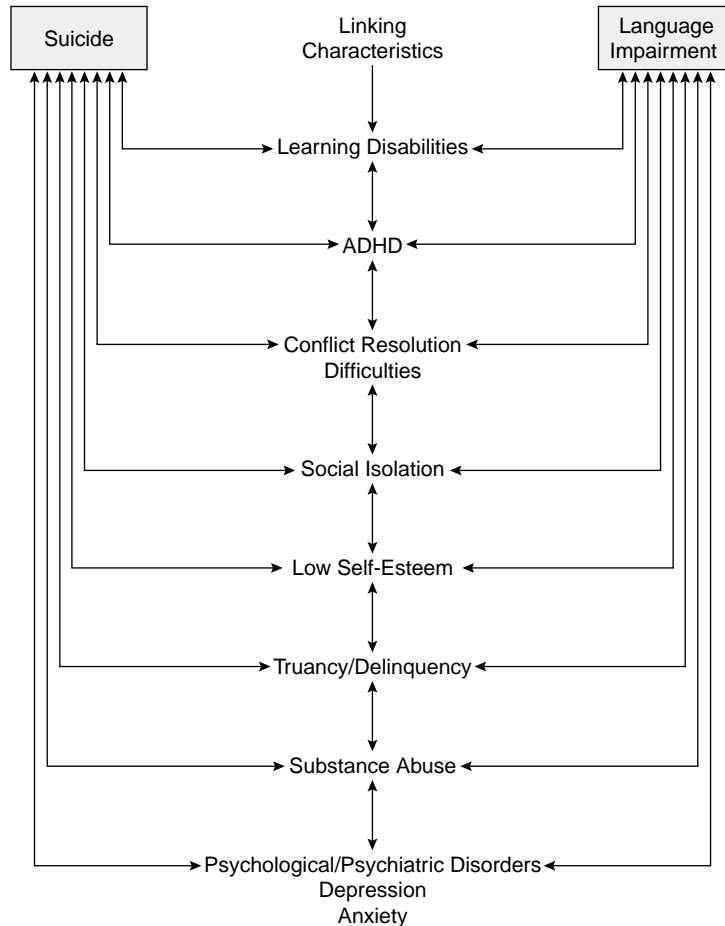


FIGURE 5.1 Possible Links between Youth Suicide and Adolescent Language Impairment

Source: © 2002 Vicki A. Reed, Claire Ireson, & Danielle Slack.

pose an association. In the study conducted by Gray and colleagues (2002), 65 percent of those youths who committed suicide had a history of substance abuse. In a follow-up study of individuals at 19 years of age who had been identified as language impaired at 5 years of age, Beitchman and his colleagues (Beitchman, Wilson, Douglas, Young, & Adlaf, 2001a) found that those with substance use disorders (SUD) compared to those without SUD were more apt to have been diagnosed with learning disabilities at 12 years of age, and this association was even stronger in cases in which the learning disability was still apparent at age 19 years. These researchers did not find a similarly strong relationship between age 5 years language impairment and age 19 years substance use problems. However, there was, not surprisingly, a strong association between age 5 years children with language impairment who and identification of learning disabilities at age 12 and age 19 years, thus suggesting a trend

but not a direct relationship. This trend prompted Beitchman and fellow researchers (Beitchman, Adlaf, et al., 2001) to adopt a more individually focused approach using cluster analysis to look at the possible relationship between language impairment and substance abuse. When the co-morbidity of SUD and psychiatric disorders, such as anxiety, depression, anti-social and personality disorder, was examined in individuals at 19 years of age, these researchers found that a statistically significant percentage of those referred to as depressed drug abusers, as well as others referred to as having antisocial behaviors, had been identified as language impaired at 5 years of age. It appears that type of psychosocial outcome, substance abuse in adolescence and early adulthood, and language impairment recognized in early childhood are associated, although confirming evidence is still out (Snow, 2000).

In the past several decades there have dramatic changes in employment profiles and the nature of work. There are now few opportunities for unskilled workers. The nature of work has increasingly required employees who can problem solve, read well, follow instructions, integrate information, generalize knowledge to new situations, and possess good interpersonal skills in order to work effectively as members of teams (Byrne, Constance, & Moore, 1992; Johnston & Packer, 1987). A particularly important change has been the widespread accessibility to computers, the Internet, and e-mail. Computer-assisted teaching may help adolescents with language disorders to learn some skills, and adolescents with language disorders may be able to use the computer for some tasks and/or for Internet searches. However, such searching and surfing may not reflect the kinds of computer use that are important to employers and for personal fulfillment. Such computer use may, in fact, reflect unsystematic and inefficient strategies. Rather than decreasing demands for reading, literacy, and metacognitive skills, effective computer use and electronic communication modes have increased demands for reading, literacy, and problem solving. Efficient use of the computer and the Internet for communication and information acquisition requires skills such as increased reading speed and comprehension of printed material, meta-linguistic and semantically based organizational abilities, and critical assessment of larger amounts of information than previously experienced. Westby and Atencio (2002) write:

In the 21st century, society has entered a new technological, information era. Where people once were valued for their ability to transform raw materials into products, now they are valued for the information they can possess and transmit. To be successful, individuals are expected to use technology to integrate more and more information from more and more diverse sources and communicate this information to more and more people. (p. 70)

The adolescent with a language disorder is probably at greater risk than ever before for being able to keep pace in vocational pursuits in what are increasing electronic communications expectations of current work environments.

The personal and societal costs of adolescent language disorders are huge.

Reasons for Neglect

Despite the mounting evidence that language disorders do exist in adolescents and that the potential personal and societal costs associated with them are staggering, adolescents with language disorders continue to be a relatively neglected group professionally (Ehren, 2002; Larson & McKinley, 2003). Several reasons account for this neglect. One is the emphasis that has

been placed on preschoolers and elementary school children with language disorders. Early intervention to prevent, or at least lessen, academic and personal failures is the rationale behind this emphasis on young children. It is certainly a logical and worthwhile rationale, and it can work. However, it does not always solve the problem, and ongoing support is then necessary.

An example of one way in which the emphasis on young children might be detracting attention from adolescents with language disorders can be found in the numbers of speech–language pathologists who work in secondary schools compared to those working in elementary schools and preschools. According to the American Speech–Language–Hearing Association (ASHA, 2002b), 30 percent of ASHA speech–language pathologists in 2000 worked in elementary schools and preschools, a large difference from the 2.5 percent who worked in secondary schools. Unfortunately, these data represent very little change in about a decade. In 1992, Blake (1992) reported that only 3.1 percent of these professionals worked in secondary schools. This report went on to state that the given proportion was “consistent with data from the *Thirteenth Annual Report to Congress* (U.S. Department of Education, 1991), which, according to Blake, indicate that the number of students identified as having speech–language impairments is quite high in the early elementary school years (ages 6–8) but decreases dramatically after age 9” (p. 82). Like the employment figures for speech–language pathologists, this striking decrease in the number of students with speech–language impairments being served in secondary schools continues almost a decade later and is evident in Figure 5.2. This graph shows the 1999–2000 data for percentage of these students being served in three age groups, 6–11 years, 12–17 years, and 18–21 years. Also shown are the data for specific learning disabilities. What is apparent is the conspicuous increase between the elementary-school-age group and the secondary-school-age group in the percentage of students with specific learning disabilities who receive special education services compared the decrease for speech–language impairments. Given that it is unlikely that so many children with language

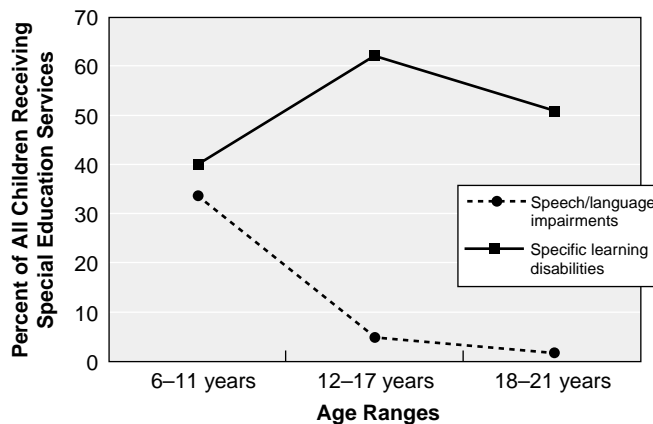


FIGURE 5.2 Students with Speech/Language Impairments and Specific Learning Disabilities as Percent of All Students Receiving Special Education Services in Public Schools in the 1999–2000 School Year

Source: U.S. Department of Education 2001b.

impairments would have been “cured” prior to entering secondary school, and knowing what we know about the association between language impairments and learning disabilities, it is likely that many of the children with language impairments in elementary school could have been relabeled as having specific learning disabilities upon entry into secondary school.

An obvious issue with these trends for employment of speech–language pathologists and the data for numbers of adolescents being served in the secondary schools is that

- If language disorders are not being identified in adolescents, then apparently there is no population needing the services of speech–language pathologists and, therefore, no need to employ them to serve secondary schools.

However, there is inherent circularity in this scenario:

- If only very few speech–language pathologists are serving the secondary schools, who is available in these schools to identify adolescents with language disorders?

A related issue leading to neglect of adolescents with language disorders is that the historical lack of services at the secondary level can lead professionals serving language-disordered children who are progressing from elementary school to junior high or middle school to dismiss these children under the belief that further services may not be available (Ehren, 2002; Ehren & Lenz, 1989). Dismissal criteria from intervention, and the tests and procedures used to determine adequacy of language functioning, may result in further neglect of language-disordered adolescents (Damico, 1988; Ehren & Lenz, 1989; Larson & McKinley, 1995). Some tests may not be sensitive to the language behaviors that can cause problems for students entering secondary schools (Nelson, 1998). The problems surrounding dismissal criteria and assessment procedures can be exacerbated by erroneous perceptions that only insignificant language development occurs beyond late childhood and that little more can be done after late childhood to help (Apel, 1999a; Ehren & Lenz, 1989; Larson & McKinley, 2003).

A failure to realize the significant, negative effects that persisting language problems have on all aspects of life is a further reason adolescents with language disorders are neglected. Another is the failure to understand that adolescents’ academic, personal, or social difficulties may be related to language deficits (Comkowycz, Ehren, & Hayes, 1987; Ehren, 2002; Ehren & Lenz, 1989; Stothard et al., 1998). While some language problems of children are not resolved by adolescence, others can emerge when teenagers are confronted by the new social, vocational, and educational demands of secondary school (Ehren & Lenz, 1989; Larson & McKinley, 2003; Reed & Miles, 1989). Even academic problems not evident in the elementary grades can emerge in high school for students whose preschool language problems seemed to have resolved in the early school years (Stothard et al., 1998). These students are at risk of having their language problems neglected because of inadequate identification or misdiagnosis. If academic problems are exhibited, the student is frequently relabeled as having a learning disability, as we know, and services, if any, are provided in learning disabilities programs (Ehren, 2002; Ehren & Lenz, 1989), evidence of which we most likely saw in the data in Figure 5.2.

In light of the discussion so far, it should not be surprising to learn that we have very limited data on the prevalence of language disorders in adolescents, and this unquestionably

adds to their neglect. Again, we can see how limited data can create the perception that there are no individuals with the problems. McKinley and Larson (1989) report on one of the few prevalence studies available. Results of this study, undertaken in Loveland, Colorado, indicated that 7 percent of 1,028 secondary students in a regular education program failed an adolescent language screening test. Of the students in remedial English classes for grades 9–12, 18 percent failed the screening test, a result that underscores the relationship between deficit oral language skills and poor academic achievement. When complete language assessments were conducted on the students who failed the screening, 35 of them were identified as language disordered and as needing intervention. This figure converts to an approximate prevalence rate of 3 percent. This study also highlighted the greater percentage of adolescents with language disorders in special services focused on reading/writing/literacy skills, i.e., the remedial English classes mentioned above. Ehren and Lenz (1989), too, found high numbers in special services in their study. These authors reported that

... 73% of a high-risk population of middle school students, including students in compensatory education and special education, evidenced some degree of language disorder. This same study found a prevalence of language disorders of 80 percent for the group with learning disabilities. (p. 193)

As further documentation of prevalence, 45 percent of the students enrolled in special education programs in a junior high school in Arizona failed a screening test of language, as did 53 percent of the seventh-grade students (approximately 12–13 years of age) who had been placed in developmental reading classes because of reading problems (Despain & Simon, 1987). In this report, a disturbing finding was that only about one-half of the students in the developmental reading classes had been referred for special education services, including language intervention services. Such findings (Despain & Simon, 1987) reflect “the ‘happenstance’ nature of identification and composition of special education caseloads at the middle school level of education” (pp. 142–143).

At present, there is no cohesive, integrated body of knowledge regarding normal language development during adolescence. There is also (1) little knowledge about effective, efficient, and comprehensive assessment procedures for use with these teenagers; (2) a limited number of standardized assessment tools; (3) a paucity of information about what intervention strategies are most appropriate; and (4) insufficient data regarding the objectives to emphasize in intervention. In these circumstances, it may be no wonder that many professionals may feel that they are not being adequately prepared to work with language-disordered adolescents, a feeling that can lead to a reluctance to pursue assertively the implementation of services in the secondary schools (Damico, 1988). This is dangerous, because it can lead to invisibility of adolescents with language disorders and the professionals who can serve them. As Larson and McKinley (1995) point out, “Perpetuating a lack of visibility makes professionals vulnerable to being considered an expendable service” (p. 294).

Figure 5.3 summarizes various reasons language-disordered adolescents are a neglected population. These reasons are not mutually exclusive, but instead are interrelated. This has the danger of leading to circularity in thinking and circularity in the neglect of adolescents with language disorders. Ehren and Lenz (1989) have used the phrase, “self-perpetuating cycle” (p.194) to describe the continuing problem of identifying and serving these adolescents.

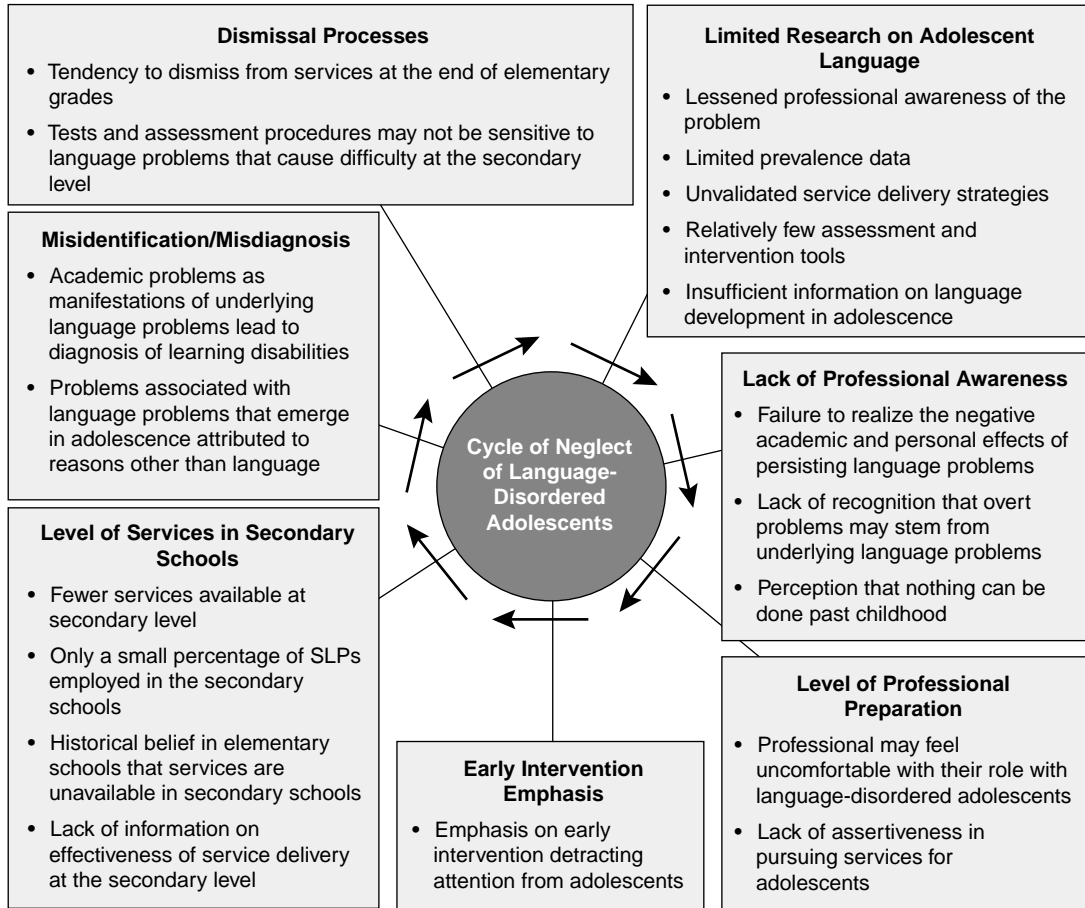


FIGURE 5.3 The Cycle of Neglect of Language-Disordered Adolescents

It is worth noting a final but disturbing thought before moving on to other topics related to adolescents and language impairment. This thought pulls together information from Figure 5.2 and Table 5.2. The data on the percentage of adolescents with language disorders who leave high school with no credential are based on the number of adolescents who are identified in the system while they are in high school. What the information in Figure 5.2 and the discussion in this section about the neglect of adolescents with language impairment tell us is that there are likely many more adolescents who have not been identified and are not included in our data, unless possibly as teenagers with specific learning disabilities, but even this is not all that encouraging. It is probable we do not have data on a considerable proportion of adolescents with language impairments. “Child Find” concepts of IDEA have yet to show up as “Adolescent Find” concepts as far as language impairment is concerned.

Language Development

In contrast to several decades ago, we now know that some very interesting aspects of spoken language continue to develop into and through the adolescent years. We also know that the changes that occur with many of these aspects of adolescent language growth may be gradual, slow, and subtle (Nippold, 2000), only become evident when “the performance of nonadjacent age groups is compared” (Reed, Griffith, & Rasmussen, 1998, p. 166), and/or show up as “spurts and regressions or fluctuations in performance” (Reed, Griffith et al., 1998, p. 176). However, as we have already indicated, compared to what is known about young children’s language development, the amount of available information about language development during adolescence remains incomplete and fragmented. In the next sections, several aspects of language that show developmental growth into adolescence are highlighted. The discussion is presented using Bloom’s (1988) model of language with its three components of language—form, content, and use.

Form

Length of Utterance. Although length of utterance is one structural aspect used to estimate young children’s level of language development, it has not been as widely used with older children, adolescents, or adults. An argument has been that children learn linguistic rules for embedding and deletion that can result in syntactically more complex utterances that are not necessarily longer. However, there is now considerable evidence that length of spoken utterance does continue to increase up to and during adolescence (Klecan-Aker & Hedrick, 1985; Leadholm & Miller, 1992; Reed, 1990).

Loban’s (1976) longitudinal study, which remains, according to Larson and McKinley (2003), “one of the most extensive studies to date” (p. 58), examined a variety of aspects of spoken language development from first through twelfth grades (about 6–7 to 17–18 years of age), including utterance length.¹ Loban presented length data for three groups of students. One group consisted of students whom teachers identified as having advanced language skills, the second was a group whom teachers identified as having poor language skills, and the third was an artificially contrived group created by randomly selecting students from the advanced-language and poor-language groups and pooling the results of their performances. Loban suggested that this last group represented “average” or typical language users. Given what we now know about language impairment in students, knowledge that was not available during the years that Loban collected his data, it is likely that many of the students in Loban’s poor-language group might today be identified as having language impairments.

With regard to utterance length, Loban’s (1976) results revealed a relatively stable pattern of increasing length throughout the grades for all three groups, a pattern he discounted as resulting from simple verbosity, that is, “an increased use of language without any significant increase in meaningful communication” (p. 25). In his study, utterance length was closely associated with overall syntactic complexity. Additionally, those students whom teachers rated as having advanced language skills consistently used longer

¹In Loban’s study, an utterance was technically a C-unit, defined as one independent clause and all dependent/subordinate clauses attached to it, or a phrase if functioning as an elliptical response.

statements than their less language-proficient counterparts. At twelfth grade, the mean length of utterance (C-unit) for the “average” language students was 11.70, compared to the higher mean length of utterance of 12.84 for the advanced-language students and the low mean length of utterance of 10.65 for the poor-language students.

Dependent/Subordinate Clauses. Complex sentences (which contain at least one dependent/subordinate clause in addition to an independent or main clause) are also of interest in adolescent language development, and growth in several aspects of complex sentence usage is particularly characteristic of older children and adolescents. Clearly distinguishing features of older students’ language include:

- Embedding (placing linguistic elements, such as a dependent clause, in the middle of utterances rather than at the end, as in “The man *who came to dinner* ate a lot,” versus “The man ate a lot *when he came to dinner*”) (Hass & Wepman, 1974)
- Using multiple embedding (having more than one dependent/subordinate clause) (Scott, 1988)
- Increasing use of left-branching clauses, such as “*When he came to dinner*, the man ate a lot” (placing dependent/subordinate clauses more toward the beginning of utterances), compared to right-branching clauses, such as “The man ate a lot *when he came to dinner*” (using these clauses toward the ends of utterances) (Scott & Stokes, 1995)

Loban’s (1976) work also provides us with additional information about other aspects of dependent/subordinate clause usage that continue to develop into the adolescent years:

- More dependent/subordinate clauses per utterance with advancing age
- Increase in the percentage of words used in the dependent/subordinate clause portions of utterances from 12 to 35 percent between grades 1 and 12.

This last finding means that in grade 12 approximately one-third of the words in an adolescent’s utterances are part of dependent/subordinate clauses. As Loban stated, “with increasing chronological age all subjects devote an increasing proportion of their spoken language to the dependent clause portion of their communication units” (p. 41). Findings that adolescents use more conjunctions in their utterances than younger school-age children, including conjunctions that conjoin clauses (Reed, Griffith et al., 1998), add support for Loban’s findings.

The information above tells us that increasing use and length of dependent/subordinate clauses, especially those embedded in or starting utterances, are characteristics of language development during adolescence. There is, however, another aspect to complex sentence use that is a significant developmental characteristic of adolescent language. This relates to changes in the types of dependent/subordinate clauses used with advancing age. Loban (1976) found that for the “average” language users (i.e., randomly grouped students), the proportion of *noun clauses* (those functioning as nouns in utterances, as in “Ice cream is *what he wants*” or “*What he wants* is a job”) increased from first to twelfth grade, while the proportion of *adverbial clauses* (those functioning as adverbs, as in “She will eat *when she comes home*”) decreased and the proportion of *adjectival clauses* (which can also be termed *relative clauses*) remained the same from first to twelfth grade. These findings are shown in Table 5.3. By twelfth grade, about 50 percent of the clauses used were noun

TABLE 5.3 Percentages of Different Clause Types Used by Advanced-, “Average,” and Poor-Language Students in First and Twelfth Grades

Language Group	Noun Clauses		Adjectival Clauses		Adverbial Clauses	
	First-Grade Students	Twelfth-Grade Students	First-Grade Students	Twelfth-Grade Students	First-Grade Students	Twelfth-Grade Students
Advanced	46%	43%	23%	33%	31%	24%
“Average” (random)	41%	50%	26%	25%	32%	25%
Poor	34%	45%	19%	21%	47%	34%

Source: Adapted from Loban (1976).

clauses, with adjectival and adverbial clauses each accounting for about 25 percent of dependent-clause usage.

Also apparent in Table 5.3 is the different pattern of development for adjectival clauses for the group of students with advanced language skills. These students increased their use of adjectival clauses from first to twelfth grade, in contrast to noun or adverbial dependent clauses. This increase clearly separated language-proficient children and adolescents from those with average and poor language. Loban (1976) concluded that “the evidence seems clear that an exceptional speaker . . . will use a progressively greater percentage of adjectival clauses in oral language, whereas the nonproficient speaker . . . or average speaker . . . will show no such percentage increases in the use of adjectival clauses” (p. 48). He pointed out that the greatest increase in the language-proficient students’ uses of adjectival clauses occurred mainly during grades 7, 8, and 9.

The relationship of adjectival clauses to adverbial clauses also seems particularly revealing about the language development of advanced- versus poor-language students. Although the proportion of adverbial clauses used by the poor-language users decreased from first to twelfth grade, as it did for the advanced-language users, across the grades the poor-language users maintained an overall greater use of adverbial clauses than the advanced-language students. For the poor-language users, their decrease in use of adverbial clauses was paralleled by an increase in the proportion of noun clauses they used. This contrasts with the increase in adjectival clause usage across the grades of the advanced-language users. By twelfth grade, approximately 33 percent of the dependent/subordinate clauses of the advanced-language users were adjectival clauses, compared to about 20 percent for the poor-language users, a considerable difference.

Adverbial Connectives. Another characteristic of adolescent language development is the increasing use of linguistic structures that occur relatively infrequently in spoken language (Nippold, 1998; Scott & Stokes, 1995). Adverbial connectives are one category of low-frequency linguistic devices. *Adverbial conjuncts* (forms that indicate a logical relation between utterances, such as “*Nevertheless*, the burned cake was eaten”) and *adverbial disjuncts* (forms that indicate an attitude or comment about the utterance, such as “*There was, of course*, some debate about the issue”) are two types of these connective devices that link utterances but do so outside of the internal syntactic structure of clauses. The work of several researchers (Crystal & Davy, 1975; Nippold, Schwarz, & Undlin, 1992; Scott,

1984; Scott & Rush, 1985) has contributed to our knowledge of adolescents' uses of these advanced language forms:

- Adolescents use a greater variety of adverbial connectives, use them more frequently, and are more successful at metalinguistic tasks involving them than younger students.
- Teenagers use adverbial conjuncts more frequently than adverbial disjuncts.
- Disjuncts tend to be used by older rather than younger students.
- Adolescents' frequency of use of these forms is less than that of adults.
- Ability in dealing with adverbial conjuncts continues to improve from early adolescence to early adulthood.
- Not all adults achieve full mastery of adverbial conjuncts, especially in written language.

Content

In this section we will consider the content of language, that is, semantics, or words and meaning. We will take a look at some of the aspects of words, word meanings, and figurative language that continue to develop during the adolescent years.

One obvious measure of semantic development to think about is the number of words in an individual's vocabulary. Miller and Gildea (1987) have estimated that at the time of high school graduation, a typical adolescent will know about 80,000 words. However, vocabulary size is only part of the picture about adolescent's semantic development. Other parts of the picture involve what types of words they learn and what they do with the words and their meanings. For example, adolescents know more words with abstract meanings than those of younger children (e.g., *oppression*, *simulate*, *divestiture*) and are able to use words in many more contexts (e.g., *hot* as in "hot food" and "hot topic" or *imperial* as in "imperial persona" and "imperial family"). There are several reasons for this semantic growth—educational exposure, life experiences, and cognitive shifts into formal/hypothetical thought levels. As Nippold (1998) points out, these mean that, compared to younger children, adolescents are better able to learn new words and their meanings by

- Picking up on cues that morphological markers provide (*piano*, *pianist*)
- Using context to decipher meanings of unfamiliar words ("The 80-year-old man enjoyed being referred to as an octogenarian")
- Taking in the direct instruction to which they are exposed in school and the vocabulary associated with it (e.g., *pyrolytic*, *trochaic*)

During adolescence, there is a continuing, qualitative refinement in lexical knowledge that is in addition to quantitative growth in the size of the lexicon.

Although vocabulary growth is an important aspect of later language development, there are other, equally important areas of semantic development during adolescence and even into adulthood. These include the characteristics of definitions provided for words, the ability to complete verbal analogies ("feet are to socks as hands are to _____"), and skill in detecting and deciphering statements that are ambiguous ("Pressing the suit led to unpredictable problems"). Adolescence is also a peak period for the use of figurative language, and a number of areas of figurative language feature in the language changes that occur in the teenage years. Among these are verbal humor, idioms, metaphors and similes, and proverbs. Table 5.4 provides a summary of these important areas of semantic growth in adolescence.

TABLE 5.4 Important Areas of Semantic Growth in Adolescence

Words and Word Meanings	Features
Defining words	<p>Categorical definitions used with increasing frequency (“<i>Wombat</i>: an animal”); children’s definition more commonly consist of functions (“<i>Spoon</i>: something you eat with”) or descriptions (“<i>Wombat</i>: A wombat is brown”; “<i>Wombat</i>: eats plants”) or are idiosyncratic (“<i>Ball</i>: the thing Jimmy has”)</p> <p>Gradually become more categorical with age (“<i>Cat</i>: like a dog”)</p> <p>More advanced forms likely to include a superordinate category and include one or more descriptors (i.e., Aristotelian definition) (“<i>Wombat</i>: a nocturnal marsupial”)</p> <p>May include more than one feature or definition type (“<i>Ball</i>: a round, three-dimensional object often used in competitive games”)</p> <p>Ability associated with adolescents’ reading ability</p> <p>Ability for different word types may develop differently with different patterns (e.g., nouns vs. verbs vs. adjectives)</p>
Verbal analogies <i>Wing to bird:</i> <i>Fin to _____</i>	<p>Ability increases from childhood into adolescence but may be a skill not fully acquired until late adolescence or even adulthood</p> <p>Some fifth to eighth graders may approach verbal analogies as free association tasks (“<i>Wing to bird</i>: <i>Fin to swim/water/scales/fish</i>”)</p> <p>Ability associated with level of academic performance and word/vocabulary knowledge (“<i>Top to apical</i>: <i>Bottom to _____</i>”)</p> <p>Ability associated with world/cultural knowledge (“<i>Democrat to Republican</i>: <i>Labor to _____</i>”) (U.S. and Australian political parties)</p> <p>Increase in ability to deal with more complex relationships (“<i>Misfeasance to malfeasance</i>: <i>Misdemeanor to _____</i>”)</p> <p>Relationship between cognitive and semantic factors in these tasks not clear</p>
Ambiguities <i>Playing cards</i> <i>can be expensive</i> <i>The glasses were smeared</i>	<p>Statements with more than one meaning that, without context, may be interpreted inaccurately</p> <p>Four types:</p> <ul style="list-style-type: none"> ■ Phonological ambiguity = homophones (“He saw three pears [pairs]”) (Shultz & Pilon, 1973, p. 730) ■ Lexical ambiguity = words with multiple meanings (“She wiped her glasses”) (Wiig & Semel, 1984, p. 343) ■ Syntactic or surface structure ambiguity = words in a statement can be grouped in more than one way; interpretation depends on recognition of subtle differences in stress and juncture (“He told her baby//stories”; “He told her//baby stories”) (Kessel, 1970, pp. 86–87) ■ Deep structure ambiguity = more than one set of linguistic relationships are possible between words of a statement <p>(“The duck is ready to eat”) (Shulz & Pilon, 1973, p. 728) (The duck is going to eat or the duck has been prepared and someone is about to eat it.)</p>

(continued)

TABLE 5.4 Continued

Words and Word Meanings	Features
Ambiguities (<i>continued</i>)	<p>("I find visiting relatives tiresome") (The act of going to visit relatives is tiresome or relatives who come to visit are tiresome.)</p> <p>Developmental sequence in ability to detect these types in the order listed above</p> <ul style="list-style-type: none"> ■ Phonological ambiguities: greatest growth rate between 6 and 9 years of age; remains a superior skill compared to other types, at least through tenth grade, or about 15 years of age ■ Lexical ambiguities: detected at approximately 10 years of age, although some children in the early elementary grades may respond correctly; remains superior skill to later developing types ■ Syntactic and deep structure ambiguities: marked development at age 12; little or no skill evidenced earlier <ul style="list-style-type: none"> ■ Ability to detect syntactic ambiguity may somewhat precede ability to detect deep structure ambiguities ■ Estimated ages of acquisition: syntactic ambiguities at about 12 years; deep structure ambiguities at about 12–15 years ■ Some 15-year-olds may continue to have difficulties with both types <p>Often a basis of advertisements (ad for a new car travelling on a highway, "Designed to move you") (Nippold, Cuyler, & Braunbeck-Price, 1988, p. 473)</p>
Figurative language	Often based on ambiguities
Verbal humor	Developmental pattern similar to that for ambiguities
Idioms	Expressions that have both a figurative and literal interpretation
<i>Raining cats and dogs</i>	Comprehension of the figurative meaning of idioms improves with age Gradual growth in understanding into and throughout adolescence
<i>Slap in the face</i>	<p>In early grades children may understand literal meaning of idioms; some may also comprehend some of the figurative interpretations</p> <p>Ability associated with reading comprehension level</p> <p>Consistent ability to comprehend figurative meanings not evidenced until adolescence</p> <p>Even older adolescents may not demonstrate complete mastery of idiomatic interpretation</p> <p>Several factors influence idiom comprehension:</p> <ul style="list-style-type: none"> ■ Frequency of exposure to specific idioms; familiarity; more familiar are more easily understood ■ Manner in which understanding is assessed ■ Degree of supporting contextual information <ul style="list-style-type: none"> ■ More easily understood when presented in context (e.g., short stories) ■ Harder to understand in isolation (e.g., pointing to pictures depicting the meaning) ■ Providing explanation of idiom is also difficult ■ Transparency; the more transparent, the easier to understand ■ Culture ("Kangaroos in the top paddock," an Australian idiom meaning much the same as "Bats in the belfry") (Reed, 1991, p. 11)

TABLE 5.4 Continued

Words and Word Meanings	Features
Metaphors and similes	Employing an attribute to describe an entity or to compare entities not literally or typically associated with the attribute or each other
<i>She is a hard person</i> (metaphor)	Requires acknowledgment of similarities between domains usually seen as dissimilar Common metaphors referred to as <i>frozen forms</i> ; less common termed <i>novel forms</i>
<i>The wind was like an arrow looking for its bull's-eye</i> (simile)	Similes: variations of metaphors; inclusion of <i>like</i> or the phrase <i>as (adjective) as</i> ; makes comparison or association explicit Comprehension and use linked to age, cognitive growth, culture, the syntactic forms used to express the metaphor/simile, schooling, semantic growth, and exposure to the forms Similes sometimes thought to be easier than metaphors because of the explicit syntactic form similes employ; research has not fully supported this conclusion
	Metaphoric comprehension
	<ul style="list-style-type: none"> ■ At 7 years of age children understand some metaphors; appears intuitively based ■ As children enter the concrete operations stage, skill improves considerably ■ Continued improvement into adolescence and the formal thought stage ■ In one study (6- to 14-year-olds), only the adolescents understood the metaphors (Winner, Rosenstiel, & Gardner, 1976) ■ Novel forms more difficult than frozen forms
	Metaphoric use
	<ul style="list-style-type: none"> ■ Likely a U-shaped developmental pattern ■ Young children's metaphors generally conventional or frozen forms; any novel forms usually stem from inaccurate perceptions or limited cognitive and linguistic realizations ■ Use of metaphors increases up to the elementary grades ■ In elementary grades use declines; conforming to educational expectations? ■ Use increases again into adolescent years ■ Adolescence a peak in use of metaphoric productions ■ Frozen forms, not novel forms, predominant even in adolescence
Proverbs	Most difficult form of figurative language
<i>A rolling stone gathers no moss</i>	Later developing than similes, metaphors, and idioms
<i>Don't put all your eggs in one basket</i>	Rudimentary figurative comprehension possibly as young as 7 to 9 years of age if task provides supporting contexts or a receptive task used Proverb explanation a more difficult task Consistent ability in proverb comprehension develops during adolescence and into young adulthood Several factors affect ability: <ul style="list-style-type: none"> ■ Frequency of exposure; more familiar proverbs easier ("Clothes don't make the man" likely easier than "A peacock should look at its legs") (Nippold, 1998, p. 134) ■ Word knowledge and word definition ability ■ Culture ("The lion went to the jungle because it ate a deaf ear," a Masai proverb) (Wiig, 1989, p. 7) ■ Amount of formal education, including amount of postsecondary education ■ Degree of concreteness or abstractness of nouns in the proverbs; proverbs with concrete nouns easier ("Sleeping cats catch no mice" likely easier than "Sorrow is born of excessive joy") (Nippold, 1998, p. 135) Ability associated with level of reading ability

Sources: Achenbach (1970); Armour-Thomas & Allen (1990); Fowles & Glanz (1977); Gardner (1974); Gardner, Kircher, Winner, & Perkins (1975); Johnson & Anglin (1995); Kessel (1970); Nippold (1988, 1991, 1993, 1994b, 1995, 1998, 1999, 2000); Nippold, Allen, & Kirsch (2001); Nippold, Hegel, Sohlberg, & Schwarz (1999); Nippold, Hegel, Uhden, & Bustamante (1998); Nippold, Leonard, & Kail (1984); Nippold and Martin (1989); Nippold, Moran, & Schwarz (2001); Nippold & Rudzinski (1993); Nippold & Taylor (1995, 2002); Nippold, Taylor, & Baker (1996); Nippold, Uhden, & Schwartz (1997); Pollio & Pollio (1979); Power, Taylor, & Nippold (2001); Shultz & Horibe (1974); Shultz & Pilon (1973); Spector (1990, 1996); Wiig (1989); Wiig, Gilbert, & Christian (1978); Wiig & Semel (1984); Winner, Rosenstiel, & Gardner (1976).

It may seem strange to see so much information about the development of figurative aspects of language included in this chapter. Competence in figurative language use is generally not thought of as critical to everyday survival. It is, however, important to adolescents in their academic and social lives. School children across grade levels, including adolescents, frequently encounter figurative language in their classrooms and textbooks (Kerbel & Grunwell, 1997; Lazar, Warr-Leeper, Nicholson, & Johnson, 1989; Nippold, 1991, 1993), especially in the language arts. According to Lazar and colleagues (1989), as early as the kindergarten year, about 30 percent of teachers' utterances contained at least one occurrence of a multiple-meaning expression. Five percent of their utterances contained at least one idiom. By eighth grade, 37 percent of teachers' utterances contained at least one occurrence of a multiple-meaning expression and, of particular interest, the occurrences of utterances containing idioms increased to 20 percent of their utterances. Success in school has also been found to be associated with students' levels of skill with aspects of figurative language, in particular their ability to comprehend proverbs (Nippold, Uhden, & Schwarz, 1997; Nippold, Hegel, Uhden, & Bustamante, 1998). Additionally, the use of slang and jargon, for which adolescents are renowned, is based primarily on figurative language. In fact, the ability to comprehend and use the slang and jargon of the peer group has been linked to peer acceptance and the ability to establish friendships during adolescence. In discussing later language development of children and adolescents, Nippold (1998) even suggests that "gaining competence with figurative language is an important part of becoming a culturally literate and linguistically facile person" (p. 8). It appears that an adolescent's ability to understand and use figurative expressions *should not be sold short* (to use a figurative expression) as a measure of language development.

Use

In Bloom's (1988) model, *use* refers to the pragmatic aspect of language. Several studies provide indications of developing pragmatic skills in adolescents, although we have less information regarding this area of development than for the other aspects of adolescents' language. Our discussion here focuses on five components of language use: (1) the ability to adapt and modify language, depending on the status of the conversational partner; (2) the various speech acts and functions occurring in communication; (3) ways in which topics are and are not maintained; (4) the paralinguistic features employed; (5) and the nonverbal communicative characteristics of adolescents.

An adolescent who is a competent communicator effectively adapts language to suit the situation (Norris, 1995; Reed, McLeod, & McAllister, 1999). That is, the adolescent uses code switching and different forms of communication based on the conversational partner's characteristics. Adolescents seem quite aware of the need to place greater importance on certain aspects of communication with particular communication partners than others. In the study by Reed and her colleagues (1999), when grade 10, normally achieving adolescents were asked to rank the order of importance of 14 communication skills in their own communication when they were interacting with their teachers or their peers, communication skills associated with discourse management (e.g., clarification or communication repair for unclear messages) tended to be ranked as more important for interactions with teachers, whereas communication skills associated with empathy and addressee focused tended to be ranked as more important for communication with adolescent peers. In Larson and McKin-

ley's (1998) longitudinal study, the language development of normally achieving male and female adolescents from grade 7 (12–13 years old) through grade 12 (17–18 years old) was tracked as they conversed in two situations, one with a same-aged peer and the other with an unfamiliar adult of opposite gender. In adolescent–adolescent conversations, the teenagers used more question types, engaged in more figurative language, introduced more new topics (i.e., evidenced more topic shifts), and used more abrupt topic shifts than in adolescent–adult conversations. These findings support Wiig's (1982a) observation that by 13 years of age, adolescents evidence the ability to change from *peer register* to *adult register* and from *formal register* to *informal register*. This adaptive communication skill is, however, apparently refined even more as adolescents grow older. By age 15, use of the more formal register seems to be extended to include less familiar peers as well as adults (Wiig, 1982a). The informal register is apparently reserved for use with the adolescents' close friends. Differences in adolescents' MLUs may also reflect use of formal or informal register. Wiig (Wiig, 1982b) reports that teenagers' MLUs tend to be shorter with peers than with adults. She suggests that one reason for this difference stems from the use of more names and titles when adolescents converse with adults. The extra words in these forms of address, therefore, increase MLU.

Besides being able to adapt their messages according to communicative situations, adolescents should have full use of all communicative functions and speech. The frequency with which adolescents employ different functions and acts appears to vary as a function of both the conversational partner's age and the age of the adolescent speakers themselves. When communicating with peers, adolescents have been described as using more functions designed to entertain and to persuade their peer to feel/believe/do something than when conversing with adults (Larson & McKinley, 1998). Although persuading their conversational partner was more evident with peers than adults, when their performance with both conversational partners was pooled, the teenagers showed a pattern of fluctuations in the frequency with which they used persuasion across the grades. Even with the ups and downs in the occurrences of persuasion, the frequency with which this communication function occurred in seventh and twelfth grades was actually quite similar. In contrast, the frequency of use of the function of describing an ongoing event increased from seventh to twelfth grade. This function is likely related to the discourse genre of narrative. Nippold (1998) has summarized aspects of narrative ability that improve during the school years and through adolescence. Among these are attempts by the older children and adolescents to include more information about the emotions and motivations of the individuals involved in their narratives and embed episodes or subplots within episodes of the narratives. Johnson (1995) cautions, however, that trying to identify norms for narrative skill is complicated by the fact that there are many different contextually related factors that affect what and how individuals produce narratives.

Other aspects of conversations have been found to change during adolescence. For example, in Larson and McKinley's longitudinal study (1998), the number of new topics that the adolescents introduced during their conversations decreased from seventh to twelfth grade, as did their use of abrupt topic shifts. The teenagers did, however, show increases in the number of interruptions during their conversations. For the most part, these findings are consistent with what Nippold (1998) has suggested the literature identifies as characteristics of increasing conversational expertise into adolescence. These include staying on a topic longer, engaging in extended dialogues with conversational partners, and shifting to new topics gracefully.

Although with advancing age adolescents may not increase the frequency with which they use the communication function of persuading the listener to feel/believe/do something (Larson & McKinley, 1998; Nippold, 1994a, 1998), reviews of the literature suggest that there may be refinements in adolescents' execution or application of persuasion. These include greater ability to generate several reasons, rationales, and arguments for a proposition and to control the interactions and discourse, and less use of immature persuasive approaches such as begging or whining. Other more advanced characteristics of persuasion that Nippold (1998) identified (i.e., anticipating counterpoints and arguments, adjusting the persuasive strategy to suit listener characteristics, proposing positive reasons or advantages) relate to the increasing ability of adolescents to adapt their communication to their partners and to see the world from the perspective of their communication partner, which is, in part, related to presupposition. Adolescents' recognition of the importance of being able to take their communication partner's perspective was identified in the Reed et al. (1999) study. These authors found that, although adolescents attached different degrees of importance to specific communication skills depending on whom their communication partners were, the one skill that ranked as relatively important for communication with both teachers and peers was the ability to take the communication partner's perspective.

From Chapter 1 we recall that maze behavior of children—revisions, repetitions, hesitations, and false starts—does not decrease with age. Loban (1976) found that the proportion of maze behavior was the same for both twelfth and first graders. This was true for all three groups of students—the advanced-, “average,” and poor-language users. Nevertheless, Loban noted erratic increases and decreases in maze behavior in the fourth through ninth grades. Larson and McKinley (1998) found similar fluctuations in seventh through twelfth grades and, like Loban, found a similar number of mazes used by the seventh-grade adolescents as by the twelfth graders. Of particular interest with regard to language impairment was that the poor-language users in Loban's (1976) study exhibited more maze behavior across all grade levels than the “average” language users, and much more maze behavior than the advanced-language users.

Findings such as these confirm that there is considerable growth in pragmatic language skills in adolescence. It is during adolescence that teenagers gain adultlike language competency to use in their interactions with others.

Characteristics of Language-Disordered Adolescents

In Chapter 4, the language characteristics of learning-disabled school-age children were discussed. Adolescents with language disorders can evidence language deficits similar to younger school-aged children with language disorders. That is, language-disordered adolescents may have difficulties with words with abstract or multiple meanings or figurative language expressions, exhibit word-finding problems, and/or use nonspecific, noncontent words such as *thing* or *stuff*, or pronouns without clear referents. And, as we see from previous sections in this chapter as well as Chapter 4, language-disordered adolescents often experience difficulties in relationships with both their peers and adults, difficulties that have been attributed, in part, to problems in their communicative interactions. They may not adapt their communications appropriately for their listeners or they may use inappropriate strategies, such as an aggressive or abrupt tone of voice, to deliver their messages. Their

nonverbal behaviors, such as standing too close, can make their listeners uncomfortable, or these nonverbal behaviors may communicate unintentionally hostile or negative messages. Problems can exist with both expression and comprehension.

Compared to the semantic and pragmatic problems demonstrated by adolescents with language impairments, morphology and syntax has tended not to receive as much attention. This may be because, by adolescence, teenagers with language problems generally talk in complete sentences that contain many correct syntactic and morphological features. However, there has been a growing awareness that some aspects of syntax and morphology may continue to be problematic for adolescents, even though errors may occur less frequently and the problems may be more subtle than in earlier years. For example, adolescents' use of syntactic structures can continue to reflect greater use of simpler, less complex forms, and the frequency with which language-disordered adolescents use the range of dependent clause types or adverbial connectives may be less than expected of teenagers. A particular characteristic of adolescents with language impairments may be a reduced frequency with which adjectival clauses are used, per Loban's (1976) findings.

The recent research findings regarding the persisting difficulties that preschool and school-age children with language impairments have with verb morphology also prompt the question as to whether some problems with morphology, and particularly verb-form use, might continue to be evidenced by preadolescents and adolescents. Longitudinal data for children with SLI from 3 to 8 years of age (Rice, Wexler, & Hershberger, 1998) have shown that these children do not catch up with the path of increasing accuracy in marking verb tense demonstrated by their normally developing peers, and do not reach at 8 years of age the almost 100 percent level of accuracy seen for their peers seen at 5–6 years of age. At 8 years of age, SLI children were still found to be achieving only about a 90 percent accuracy level. The difficulty is, however, that a 90 percent accuracy level might not be interpreted as an important reduction in the level of performance, an interpretation that could erroneously minimize the significance attached to this aspect of children's language performance. However, as Rice (2000) points out, morphological marking of tense in English is not optional, so that for children whose language is developing normally, "by a certain age, [use of correct] grammatical markers would show little variation" (p. 22). For older students, findings from one pilot study (Reed & Evernden, 2001) suggested that, compared to 12 normally achieving students aged 8–12 years, age-matched peers with reading difficulties co-occurring with various degrees of language difficulties had more errors in using verb forms during a narrative task, even though the frequency of errors overall was relatively small. Figure 5.4 shows the trend lines for number of verb errors made by the 12 normally achieving students and 12 students with reading/language problems. As can be seen, the trend line for the reading/language-impaired children is noticeably flatter than that for the normally achieving children. And 83 percent of the students with reading/language problems made one or more verb-form errors in their retelling of a narrative, compared to 58 percent of their normally achieving students. These two groups also appeared to differ in their patterns of marking tense. As one example, the students with reading/language problems used considerably more progressive verbs (*is running*, *were running*) than the normally achieving students, and the students with the reading/writing problems were about as accurate in their use of these progressive verb types as the normally achieving students. This comparable level of accuracy for both groups of students was not the case for other verb-tense forms, for which the students with reading/language problems generally were

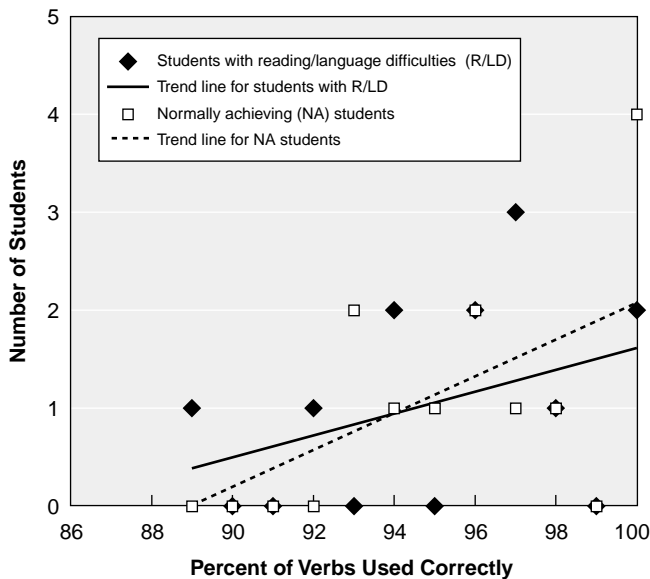


FIGURE 5.4 Percentage of Verbs Used Correctly by Students with Reading/Language Difficulties and Age-Matched Normally Achieving Students.

Source: Reed and Evernden, 2001.

less accurate. Another finding from that study suggested that the location of mazes of the students with reading/language problems included mazes on verbs, whereas none of the normally achieving students exhibited any mazes on verbs. Evidence of continuing verb errors may, along with other difficulties with syntax and/or morphology, characterize the language of some adolescents with language impairment.

We might expect, however, that some language growth as a result of intervention, maturation, or both would occur between childhood and adolescence. Therefore, the language problems of adolescents may be less obvious and more difficult to identify than those of younger children. These factors can contribute to false negatives in identification (not identifying a problem when one actually exists) or even misdiagnosis, as discussed previously.

The neglect of language-disordered adolescents means that less is generally known about their communicative characteristics than about those of younger children with language disorders. Larson and McKinley (1987) point out “that much of what is known about adolescents with communication disorders comes from related literature in learning disabilities and deaf education” (p. 8). Simon and Holway (1991) present a list of communication features that represent students’ incompetent language use under the categories of form, function, and style, which these authors contrasted with a parallel list of competent communication features. For example, these authors contrasted as a competent feature, “mastery of tense reference and subject/verb agreement,” with the incompetent feature, “lacks consistency in tense and number reference,” “tactful deviousness used” with “tactless statements,” “sustains topics of conversation” with “wanders from conversational topic,” and “considers listener’s infor-

mational needs” with “egocentric comments” (p. 152). Several authors have identified characteristics that adolescents with language problems frequently demonstrate in their classrooms (Ehren, 1994; Lenz, Bulgren, & Kissam, 1995; Schmidt, Deshler, Schumaker, & Alley, 1989). Many of these difficulties are summarized in Table 5.5. Larson and McKinley (2003) also developed a summary of problems that can characterize the communication of adolescents with language disorders. Their summary, shown in Table 5.6, contrasts expected normal skills for adolescents with problematic behaviors in seven areas: cognition, metalinguistics, comprehension and production of linguistic features, discourse, nonverbal communication, survival language, and written language. These authors (Larson & McKinley, 1987) have suggested that problematic behaviors and/or expectations, such those shown in listed in Tables 5.5 and 5.6, can provide starting points in determining “where a given adolescent matches or mismatches with educators’, parents’ or peers’ expectations” (p. 15).

TABLE 5.5 Characteristics of Adolescents with Language Disorders in Classrooms

Adolescents with Language Disorders

Do not:	<ul style="list-style-type: none"> Recall information presented in lessons Participate in lessons Appear to listen to the teacher during lessons Meet minimum standards for academic work Define words well or use them appropriately Learn from other students’ questions Get along well with peers Participate in group discussions Complete assignments on time or complete them at all Organize work and materials Prepare for class Work independently Demonstrate knowledge on tests
Do:	<ul style="list-style-type: none"> Need additional prompting to follow directions to complete tasks within their ability Demonstrate a negative attitude or approach to learning Ask irrelevant questions Violate the rules of conversational discourse (e.g., accessing conversations, taking turns, closing conversations) Provide irrelevant answers to questions Express or organize ideas illogically Converse in irrelevant ways with conversational partners

Sources: Adapted from Ehren (1994); Lenz, Bulgren, & Kissam (1995); & Schmidt, Deshler, Schumaker, & Alley (1989).

TABLE 5.6 Characteristic Problems of Older School-Age Students with Language Disorders

Category	Expectations	Problems
Cognition	To be at the formal operational level	They often remain concrete operational thinkers.
	To observe, organize, and categorize data from an experience	They make chaos out of order.
	To identify problems, suggest possible causes and solutions, and predict consequences	They may not recognize the problem when it exists; if they do, they do not know how to develop alternative solutions.
	To place concepts into hierarchical order	They often cannot place concepts in a hierarchy.
	To find, select, and utilize data on a given topic	They have limited strategies for finding, selecting, and utilizing data.
Metalinguistics	To demonstrate conscious awareness of linguistic knowledge	They have difficulty bringing to awareness categories and relations in all aspects of language.
	To talk about and reflect on various linguistic forms	They do not know the labels for talking about language during formal education.
	To assess communication breakdown and revise them	They do not have awareness of breakdowns and, if they do, they lack repair strategies.
Comprehension and production of linguistic features	To comprehend all linguistic features and structures	They misunderstand advanced syntactical forms.
	To follow oral directions of three steps or more after listening to them one time	They may not realize that they are being given directions and/or have difficulty following them.
	To use grammatically intact utterances	They often use sentences that are fragmented and that do not convey their messages
	To have a vocabulary sufficient for expressing ideas and experiences	They have word-retrieval problems as well as a high frequency of low-information words.
	To give directions with clarity and accuracy	They often leave their listeners confused
	To get information or assistance by asking questions and to respond appropriately to questions asked of them	They may know what questions or answers to give, but they do not know how to do so tactfully.
	To comprehend and produce the slang and jargon of the hour	They do not comprehend or produce slang/jargon, thus they are ostracized from the group to which they most desire to belong.

A determination of match and mismatch is an essential component of assessment and intervention for language-disordered adolescents (Larson & McKinley, 1995). A recurring theme throughout this book has been that individuals with language disorders do not represent a homogeneous group. Adolescents with language disorders constitute a no less homogeneous group. Each language-disordered adolescent presents a unique profile of communicative strengths and weaknesses. An objective of the assessment process is to identify each adolescent's unique profile.

TABLE 5.6 Continued

Category	Expectations	Problems
Discourse	To produce language that is organized, coherent, and intelligible to their listeners	They use many false starts and verbal mazes.
	To follow adult conversational rules for speakers (e.g., maintaining a topic, initiating a topic)	They consistently violate the rules.
	To be effective listeners during conversation without displaying incorrect listening habits	They often have poor listening skills.
	To make a report, tell or retell a story, and explain a process in detail	They often leave their listeners confused.
	To listen to lectures and to select main ideas and supporting details	They often do not grasp the essential message of a lecture.
	To analyze critically other speakers	Their judgments are arbitrary, illogical, and impulsive.
	To express their own attitudes, moods, and feelings and to disagree appropriately	They have abrasive conversational speech.
Nonverbal communication	To follow nonverbal rules for kinesics	They violate the rules and misinterpret body movements and facial expressions.
	To follow nonverbal rules for proxemics	They violate the rules for social distance.
Survival language	To comprehend and produce situational phrases and vocabulary required for survival in our society	They do not have the necessary concepts and vocabulary needed in places such as banks, grocery stores, and employment agencies.
	To comprehend and produce concepts and vocabulary required across daily living situations	They do not have the necessary concepts and vocabulary needed across daily living situations such as telling time, using money, and understanding warning signs.
Written language	To comprehend written language required in various academic, social, and vocational situations	They do not consistently and/or efficiently process information obtained through reading.
	To produce cohesive written language required in various academic, social, and vocational situations	They do not consistently and/or efficiently generate written language that conveys their messages.

Source: From *Communication Solutions for Older Students* (pp. 9–10), by V. Lord Larson & N. McKinley, 2003, Eau Claire, WI: Thinking Publications. Copyright 2003 by Thinking Publications. Reprinted by permission.

Assessment

Without a solid foundation in normal language development in adolescence, assessment is a difficult and demanding process. Summaries of problems that may characterize the communication of adolescents with language disorders such as the one compiled by Larson and McKinley (2003) (Table 5.6), can provide frameworks for assessing an adolescent's

language functioning. A number of school systems have developed lists of communicative competencies for the secondary grades that can also serve as assessment guidelines.

Expectations are that adolescents can use all aspects of language to function effectively in their social, academic, and vocational contexts. These expectations imply, therefore, that in assessment, an adolescent's communicative performance in each of these contexts needs to be examined. If an adolescent is struggling in any or all of these contexts, then a language disorder should be suspected and the adolescent should be more closely assessed.

The assessment of adolescents can be divided into two parts, each serving a different function. The first part involves identifying adolescents who exhibit problematic language behaviors and who may have language impairments. The second part is a more in-depth exploration of the adolescent's language functioning to either confirm or reject the initial identification and, if the identification is confirmed, to determine the adolescent's level of functioning in a variety of areas to identify areas to be targeted in intervention and the appropriate placement for intervention, and to select the appropriate service delivery format. In the following sections, we discuss aspects of both parts of the assessment process. A few standardized tests are available to assist in the process. However, informal observation and nonstandardized assessment methods must also be employed.

Identification

Teacher referrals and language screening are two common methods of identifying language-disordered adolescents. These are not mutually exclusive methods. Both may, and probably should, be used.

Teacher Referrals. Referrals from regular-education teachers, special educators, remedial teachers, and other specialists are effective ways of identifying adolescents with possible language problems. One critical factor in the success of this method is the degree to which these secondary school professionals understand and recognize the nature of language disorders in adolescents and know the potential sources of professional help for the adolescents. For this reason, information dissemination is important in providing services for language-disordered adolescents (Larson & McKinley, 2003).

Information dissemination includes sharing with classroom teachers and support personnel (e.g., counselors, special educators, social workers, and principals) information about the characteristics of adolescents with language disorders, the ways in which language impairments can be manifested academically and socially, and the intervention services available. Imparting this information helps to ensure that those professionals who have daily contact with adolescents or who interact with them in a variety of situations make appropriate referrals for assessment (Larson & McKinley, 1995). In-service presentations (Reed & Miles, 1989) are one way to increase school professionals' knowledge of adolescents with language disorders and the assistance that can be provided for these teenagers, and to promote referrals. Another method is to contribute to school newsletters or newsletters of educators' professional groups. McKinley and Larson (1989) used this last approach to disseminate information to secondary school principals.

Asking informed educators to complete observational/behavioral ratings scales on their students is one way to obtain referrals (Wiig, 1995). Several rating scales of language and language-related skills are available for use with adolescents (Catts, 1997; Larson &

McKinley, 1987; Loban, 1976; Semel, Wiig, & Secord, 1996a). Such ratings not only aid in identifying adolescents with possible language problems, they also direct assessment to areas of communication most highly suspect in an adolescent and indicate those aspects of an adolescent's language functioning that most concern others. This latter information is particularly useful because one critical function of language is to establish and maintain positive human relations. If an adolescent's communicative behavior is interfering with human interactions, the reasons for the ineffectual or negative uses of language need to be targeted for intervention.

Screening. Language screening tests are used to indicate in broad terms whether an individual's language skills are adequate or whether there is a discrepancy from normal expectations that is sufficient to warrant further assessment. Professionals disagree about the benefits of mass screenings of all students in secondary schools or even all students in specified grades in secondary schools, such as all seventh graders and all tenth graders. Some suggest that a more effective approach is selective screening of students who meet certain criteria, such as students in learning disabilities programs, those who received speech-language services in earlier grades, students receiving tutoring or remedial reading services, or adolescents at risk for dropping out of school.

Only a few standardized language screening tests for adolescents are commercially available. Four of these are listed in Table 5.7. Each of these is designed to be administered individually to adolescents. The tests examine a variety of aspects of communicative functioning, and the suggested estimated time to administer these ranges from about 2 to 15 minutes. Simon (1987) developed a group screening procedure, the Classroom Communication Screening Procedure for Early Adolescents (CCSPEA), to be used primarily with students in grades 5 through 9. The procedure can be administered in the students' classrooms or in other group settings and takes about 50 minutes to complete. It is a paper-and-pencil task, although the writing is limited mostly to circling answers or writing single words, so that it can be used with students who have difficulty with written language. Areas of performance examined in the screening test include content, syntax, and metalinguistic comprehension, following oral and written directions, dealing with anaphoric reference, and inferencing, and semantic skills involving synonyms and word definitions.

Language Assessment

Standardized Tests. Some of the more complete language tests that are appropriate for individuals 11 years of age or older are also listed in Table 5.7. Tests that examine areas of functioning closely related to language, such as phonological processing in the Comprehensive Test of Phonological Processing (CTOPP) (Wagner, Torgesen, & Rashotte, 1999) or problem solving abilities in the Test of Problem Solving (TOPS) (Bowers, Huisingh, Barrett, Orman, & LoGiudice, 1991), are also included for reference. Most of the tests in the table are norm referenced. Some examine skills in a variety of language areas such as syntax and semantics, for example, the Oral and Written Language Scales (OWLS) (Carrow-Woolfolk, 1996) and the Test of Adolescent and Adult Language—3 (TOAL—3) (Hammill, Brown, Larsen, & Wiederholt, 1994). Others focus on one area of language such as vocabulary or pragmatics, for example, the Expressive One-Word Picture Vocabulary Test (EOWPT)—2000 Edition (Brownell, 2000a) and the Test of Pragmatic Language (TOPL) (Phelps-Terasaki & Phelps-Gunn, 1992).

TABLE 5.7 A List of Some Adolescent* Language and Language-Related Tests

Test Name	Author(s)	Year
Screening Tests		
Adolescent Language Screening Test (ALST)	Morgan & Guilford	1984
Clinical Evaluation of Language Fundamentals Screening Test—3 (CELF-3)	Semel, Wiig, & Secord 1996b	1996
Mini-Screening Language Test for Adolescents	Prather, Brenner, & Hughes	1981
Screening Test of Adolescent Language (STAL)**	Prather, Breecher, Stafford, & Wallace	1980
Assessment Tests		
Auditory Continuous Performance Test (ACPT)	Keith	1994a
Clinical Evaluation of Language Fundamentals—4 (CELF—4)**	Semel, Wiig, & Secord	2003
Comprehensive Assessment of Spoken Language (CASL)	Carrow-Woolfolk	1998
Comprehensive Receptive and Expressive Vocabulary Test—2 (CREVT—2)	Wallace & Hammill	2002
Comprehensive Test of Phonological Processing (CTOPP)	Wagner, Torgesen, & Rashotte	1999
Detroit Tests of Learning Aptitude—Adult (DTLA-A)	Hammill & Bryant	1991
Detroit Tests of Learning Aptitude—4 (DTLA—4)**	Hammill	1998
Expressive One-Word Picture Vocabulary Test—2000 (EOWPT—2000)**	Brownell	2000
Fullerton Language Test for Adolescents—2 (FLTA—2)**	Thorun	1986
Illinois Test of Psycholinguistic Abilities—3 (ITPA—3)	Hammill, Mather, & Roberts	2001
Interpersonal Language Skills Assessment	Blagden & McConnell	1984
Language Processing Test—Revised (LPT—R)	Richard & Hanner	1995
Let’s Talk Inventory for Adolescents (LTI—A)	Wiig	1982b
Lindamood Auditory Conceptualization Test—Revised (LAC—R)	Lindamood & Lindamood	1979
Oral and Written Language Scales (OWLS)	Carrow-Woolfolk	1996
Peabody Picture Vocabulary Test—III (PPVT—III)**	Dunn & Dunn	1997
Receptive One-Word Picture Vocabulary Test—2000 (ROWPVT—2000)	Brownell	2000
SCAN—A: A Test for Auditory Processing Disorders in Adolescents and Adults	Keith	1994b
Test of Adolescent and Adult Language—3 (TOAL—3)	Hammill, Brown, Larsen, & Wiederholt	1994
Test of Adolescent/Adult Word Finding (TAWF)	German	1990
Test of Auditory Reasoning and Processing Skills (TARPS)	Gardner	1993
Test of Language Competence—Expanded Edition (TLC)**	Wiig & Secord	1989
Test of Language Development Intermediate)—3rd Edition (TOLD—I:3)	Hammill & Newcomer	1997
Test of Pragmatic Language (TOPL)	Phelps-Terasaki & Phelps-Gunn	1992
Test of Problem Solving (TOPS)**	Bowers, Huisinigh, Barrett, Orman, & LoGiudice	1991
Test of Word Finding—2 (TWF-2)	German	2000
Test of Word Finding in Discourse	German	1991
Test of Word Knowledge (TOWK)**	Wiig & Secord	1992
The Expressive Language Test	Bowers, Huisinigh, Orman, & LoGiudice	1998
The Listening Test (TLT)	Barrett, Huisinigh, Zachman, Blagen, & Orman	1992
The Word Test-Adolescent**	Zachman, Huisinigh, Barrett, Orman, & Blagden	1989
Wiig Criterion-Referenced Inventory of Language (CRIL)	Wiig	1990b
Woodcock Language Proficiency Battery—R	Woodcock	1991

* Designed for individuals 11 years of age or older.

** Listed as among the ten most frequently used tests by Oregon speech–language pathologists with individuals 13–19 years of age (Huang et al., 1997).

One exception to the normed tests is the criterion-referenced Wiig Criterion-Referenced Inventory of Language (CRIL) (Wiig, 1990b), designed to be used with individuals as old as 13 years. This instrument includes probes to assess performance in the areas of semantics, pragmatics, morphology, and syntax. Huang, Hopkins, and Nippold (1997) surveyed Oregon speech–language pathologists about the language tests they used most frequently for individuals in the age range 13–19 years. The ten used most often are identified in Table 5.7 by double asterisks, although in some cases the nominated tests in the Huang et al. study were earlier versions of the ones listed in the table.

Standardized tests allow those working with adolescents with suspected language problems to provide numbers that convey some notion about the presence and severity of an adolescent’s language disorder (Apel, 1999b). These numbers are more often than not required by school administrators in order to qualify students for services. This is one reason that prompted Apel (1999b) to write that he is “not sure at the present time there is a way to ‘beat the numbers game,’ ” (p. 101), even though the norms and construct validity for several of the tests have been questioned (Lieberman, Heffron, West, Hutchinson, & Swem, 1987; Stephens & Montgomery, 1985). Also, as we learned previously, Nelson (1998) has expressed concern that tests that are available are not always sufficiently sensitive to identify adolescents who struggle as a result of poor language skills. And, in comparison to the many language tests designed for use with younger children, there are many fewer for adolescents. If we proceed to eliminate any of these tests because of questionable validity and sensitivity, our choices of what to use narrow even more. These are several of the reasons that nonstandardized language assessment and informal observation are used so frequently and so effectively with adolescents. Other reasons are that many standardized tests examine only limited aspects of language behavior and usually provide for probing only small samples of any particular language skill, and these alone do not yield sufficient information about patterns of language behaviors to allow us to develop specific intervention objectives. Approximately 25 percent of the speech–language pathologists in the study by Huang and colleagues (Huang et al., 1997) expressed dissatisfaction with standardized language testing for a variety of possible reasons, including time constraints and the limited information these tests provide for intervention planning. These topics are discussed in more detail in Chapter 13. It is sufficient to say here that nonstandardized techniques are necessary when assessing the language skills of adolescents.

Nonstandardized Methods. Damico (1993) has argued that assessment “activities used must be more *authentic*, more *functional*, and more *descriptive* than the assessment procedures previously employed with this population” (p. 29). Authentic assessment means looking at and gathering information about how an adolescent uses or cannot use his or her language in contexts that are “real” for the adolescent (e.g., in understanding what teachers say in classroom lessons, in peer interactions, in trying to apply for part-time jobs, in studying for tests, in understanding and/or explaining a movie or book). This approach to assessment, according to Paul (2001), is referred to as involving “ecological validity (goodness-of-fit with the real world)” (p. 4). A number of strategies are available to assist in undertaking more authentic assessment of adolescents. These include analyzing samples of an adolescent’s language, creating contrived situations to elicit examples of specific language behaviors of interest, examining portfolios of the student’s work, and assessing the educational system in which the student is expected to function.

Analysis of Spontaneous Language. It is impractical to attempt to analyze an adolescent's entire language behavior in any one day. Therefore, one or more limited but representative samples of spontaneous language is obtained for analysis. Specific factors related to obtaining language samples are discussed in Chapter 13. There the focus is more on the younger child than on the adolescent with a suspected language disorder. However, the principles of obtaining a sample in varying communicative situations and of audio or video recording the sample apply in all instances. Here we discuss that are approaches that are appropriate specifically for adolescents.

A common context in which an adolescent's language is sampled is conversation. Recall that in Larson and McKinley's (1998) study of the characteristics of adolescents' conversations from grades 7 through 12, these authors obtained samples of conversations while adolescents talked with an adult and again with an adolescent's peer. To provide a guideline to analyze adolescents' conversations, Larson and McKinley (1995) have developed the Adolescent Conversational Analysis. This analysis method provides for examination of both the listener and speaker roles of an adolescent during conversational interactions. Listener abilities that are analyzed are understanding the speaker's vocabulary and syntax, following the speaker's main ideas, listening in a nonjudgmental way, and signaling lack of understanding. Speaker abilities are divided into four aspects: language features, paralanguage features, communication functions, and verbal and nonverbal communicational rules. Within each of these broad aspects, specific features of communicative functioning are noted and analyzed.

Elements of analysis for language features include the use of a variety of syntactic forms, occurrence of question forms, production of figurative language, evidence of nonspecific language, and occurrence of word-retrieval problems, mazes, and false starts. Analysis of paralanguage behavior focuses on fluency, intelligibility, and suprasegmental features such as inflection, rate, and juncture. For the broad category of communication functions, specific functions used as analysis elements are giving information; getting information; describing ongoing events; persuading; expressing beliefs, feelings, and intentions; indicating readiness for additional communication; problem solving; and entertaining. The last of the four broad aspects, verbal and nonverbal communication rules, is divided further into verbal rules for topics and turns, verbal rules for politeness, and nonverbal rules. Seven verbal rules of topics and turns are analyzed (initiating conversations, choosing topics, maintaining topics, switching topics, taking turns, repairing conversations, and interrupting). Analysis of verbal rules of politeness focuses on appropriate quantity of talk, appearance of sincerity and honesty, making relevant contributions to the topic, expression of ideas clearly, and tactfulness. Lastly, four aspects of nonverbal rules are examined—gestures, facial expressions, eye contact, and proxemics (physical distance from partner).

Each of these communicative behaviors is judged as appropriate or inappropriate each time it occurs during a language sample. The tallies or frequency counts of both appropriate and inappropriate behaviors can be transferred to a profile form that summarizes an adolescent's strengths and weaknesses. This profile can lead to the development of specific intervention objectives and can form part of the basis of a valid and defensible intervention plan. It is possible that the characteristics of adolescent conversations that Larson and McKinley (1998) identified in their study can be used to provide a framework to which the conversational characteristics of a specific adolescent in a particular grade with either an adult or peer as a conversational partner can be compared.

Larson and McKinley (1995) are not specific in identifying what “variety of syntactic forms” (p. 286) should be examined as part of their conversational analysis. However, given the information about dependent-clause development and conjunction usage in adolescence that is available (Loban, 1976; Reed, Griffith et al., 1998), a fairly in-depth analysis of an adolescent’s use of dependent/subordinate clauses is likely important. As shown in Figure 5.5, a guideline for proceeding systematically through increasingly finer-grained analyses of an adolescent’s dependent/subordinate usage in a language sample can be created from Loban’s (1976) findings, in combination with those of others (Hass & Wepman, 1974; Scott, 1988; Scott & Stokes, 1995). In light of Reed and Evernden’s (2001) preliminary findings, another potentially important area to examine might be an adolescent’s verb-form usage, including the degree to which the adolescent evidences mastery of correct verb-form use (especially past-tense verb forms), the forms by which the adolescent marks tense, and the frequency with which mazes occur on verbs compared to other aspects of morphosyntax, such as pronoun forms and nouns, or involve revisions of content.

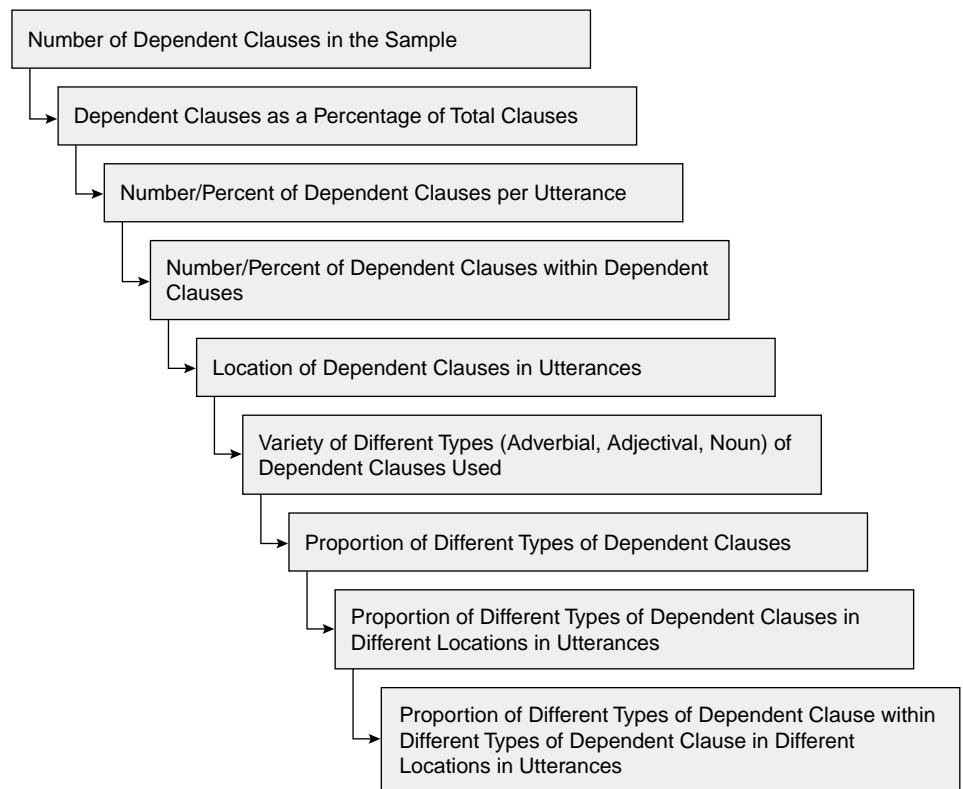


FIGURE 5.5 Increasingly Finer-Grained Analyses of Dependent/Subordinate Clause Usage in Adolescents’ Language Samples

Sources: Adapted from Hass and Wepman, 1974; Loban, 1976; Scott, 1988; and Scott and Stokes, 1995.

A difficulty in using a conversational language sample with adolescents to identify language impairments and areas of language problems is that, in situations that do not require the use of particular forms, these students can avoid using aspects of language that are not well established in their repertoires or those that continue to create problems for them. A guiding principle for examining the language of an adolescent is that we need to look for what is *not* present in the adolescent's language or what the adolescent *does not do* with language as much as looking at what an adolescent does do or use. Because a conversation might not push an adolescent to use aspects of language that are difficult for the adolescent, we need to include in our assessment practices tasks that require the use of language targets of interest so that we can find out what the adolescent is capable or not capable of.

One way to do this is to take a language sample as an adolescent produces a narrative. As we saw in Chapter 3, a narrative task can often put sufficient demands on language ability to push or stress an individual's language performance. Problems with narrative production also seem to be implicated in children whose early language problems seem to persist in the adolescent years (Stothard et al., 1998). There are several types of narrative tasks, each having its advantages and disadvantages and each stressing an adolescent's language performance in different ways. In the Reed and Evernden study (2001), a story-retell task from a wordless picture book was employed to explore patterns of verb-form use. This type of narrative task reduces demands on a student's memory for a story and the influence of variables involving degrees of previous knowledge with particular stories but does not provide an auditory model of the story so that the language used is the language of adolescent, not that recalled from an examiner's story. Retelling a story also tends to encourage the use of past-tense verbs, which means that it may trigger the appearance of verb-use patterns not evident in other types of discourse. This might explain why the students in the Reed and Evernden study (Reed & Evernden, 2001) used a greater proportion of progressive tenses (which involve a quite regular and more consistent pattern) rather than attempting to deal with the several variations of past tense (for example, regular past, irregular past involving an internal vowel change such as *swam*, irregular past involving a different word such as *did*). A further advantage of including a language sample obtained from a narrative task is that it can provide general information about an adolescent's ability to use narrative, a particularly important genre in the adolescent years. One of the more widely used computerized language sample analysis systems (Systematic Analysis of Language Transcripts—SALT) (Miller & Chapman, 2000) provides options for analyzing samples collected via conversation or through narrative. Collecting an adolescent's language sample in both contexts as opposed to just conversation or narrative is likely to provide the data needed for analyses to obtain a picture of adolescent's language abilities.

Contrived Situations. The concepts of and push for the use of authentic forms of assessment can put professionals in a bind when assessing the language abilities of adolescents. As Nippold (1995) has indicated, "Tasks that are sensitive to later language development sometimes involve the use of language in limited or contrived contexts" (p. 320). To examine an adolescent's language performance in contrived situations seems, on the surface, to be contrary to the principles of authentic assessment. However, it may be necessary to use contrived contexts to elicit information about language abilities that are undermining a student's ability to function in authentic situations. Consequently, it might be useful to avoid considering these two approaches as mutually exclusive. Instead, using contrived situations

can be helpful when additional probing of particular skills or eliciting the use of infrequently occurring language structures (e.g., adverbial connectives) is necessary, or when an adolescent's ability with language needs to be stressed. This approach can provide information about language behaviors that were not evidenced in what might be a less demanding conversational interaction and reveal important information about an adolescent's language skills. Contrived situations might be particularly helpful for assessing language abilities involving aspects of figurative and literate language (e.g., proverbs, word definition skills, slang, idioms) and adverbial connectives.

Contrived situations may also be particularly helpful for examining adolescents' receptive language abilities when standardized testing for receptive language does not provide sufficient information for identification of language disorder or intervention planning. Receptive language ability is increasingly being recognized as an aspect of language performance that is often overlooked in terms of its impact on performance and outcomes from earlier language difficulties. For example, the evidence is mounting that children and adolescents who have receptive language impairments, with or without expressive language impairment, fair more poorly on measures of social adjustment and level of language abilities in adolescence (Asher & Gazelle, 1999; Beitchman, Wilson, Brownlie, Walters, & Lancee, 1996; Beitchman, Wilson, Brownlie, Walters, Inglis et al., 1996). Careful assessment of an adolescent's receptive language abilities is important.

Portfolios. In using portfolios as part of the assessment process, an adolescent and others who interact regularly with the adolescent (e.g., teachers, school counselors) add examples of the adolescent's work to a file. The file is intended to represent a collection of the adolescent's abilities in a variety of communication contexts and to reflect the adolescent's responses to different academic and communicative demands. The use of portfolios as a method of assessment is seen as a particularly ecologically valid approach. Wiig (1995) describes a 4×4 matrix that can be applied in a "structured, multidimensional assessment profile for focused holistic evaluation of portfolio samples across subject areas within a curriculum" (p.23). She refers to a profile resulting from such an assessment to profile as an "S-MAP" (p. 23). Dimensions to be included in the assessment matrix vary by what are important dimensions for a particular communication task or context. Each dimension is then assessed on a rating scale of 1 (Good) to 4 (Unacceptable). For example, for a narrative sample, Wiig (1995) suggests that each of four dimensions (1. Organizational Structure; 2. Recall and Elaboration; 3. Coherence, Cohesion, and Conventions; 4. Evaluation, Monitoring, and Revision) be evaluated and assigned one of four ratings (1. Good; 2. Acceptable; 3. Marginal; 4. Unacceptable). Wiig (1995) provides descriptors to guide ratings within each dimension. For example, a description of "A recognizable narrative structure is followed; there is a clear beginning, middle sequence, and ending" for Organizational Structure is rated as "Good," whereas a description for Evaluation, Monitoring, and Revision of "There are many revisions or no revisions when appropriate; when there are revisions, they are abrupt and without transitions, become tangential and verbose" is rated as "Marginal" (p. 25). A matrix such as this has the potential to bring to analysis of adolescents' portfolios a more systematic approach than might otherwise occur.

Assessing the Educational System. Success or failure in school significantly affects all aspects of life in adolescence, as well as adult life. When an adolescent suspected of having a language disorder has particular difficulty with certain subject areas, Larson and McKinley

(2003) believe that the student's educational environment, as well as his or her language skills, should be assessed. These authors suggest that such an assessment can help identify the source of the problem (either with the student or with the educational system), determine if the problem stems from the adolescent's lack of motivation or a lack of skill, and indicate whether or not an intervention plan needs to include curriculum modification as well as more direct language intervention. In completing a curriculum analysis, the language of instruction, the language of the textbooks, the student's attitude toward specific subjects, and the student's ability to comprehend the language used in the curriculum are assessed. A portfolio analysis of an adolescent's work from a number of different subjects and different types of communication tasks in these subjects might give us leads as to what and how to assess the educational system in which the adolescent is expected to use language to perform.

Larson and McKinley (1995) offer another strategy that can be used to facilitate completing such an assessment. These authors developed the Curriculum Analysis Form. The form is divided into three parts, all of which are completed for each course an adolescent is finding especially difficult. The first section analyzes the textbook used in the course, and the second focuses on the course's organization and the student's comprehension of classroom lectures/instructions and examinations. The last section of the form asks the adolescent to answer *yes* or *no* to a list of questions designed to probe the adolescent's attitude toward the course. When the analysis is completed, it helps clarify what strategies can be employed to assist the adolescent in dealing with educational language levels.

Lunday (1996) also developed a checklist to guide assessment of what communication skills are expected for postsecondary classroom and vocational success. This form consists of six aspects of language (Vocabulary, Use, Function, Organization, Form, Pragmatics), each of which is evaluated by answering a number of questions about expectations, for example, expected to participate in classroom discussions, expected to interpret and use non-verbal cues, required to understand figurative expressions. The teacher's expectation for each question is ascertained (i.e., yes it's an expectation, no it's not, or not applicable). For each question, the student's success in meeting each expectation is also evaluated as being positive, negative, or somewhere in the middle (+/-). The results provide a profile of what communication skills are important for the student from a teacher's perspective and the student's degree of ability to meet those expectations. This approach is quite consistent with the match/mismatch approach to assessment advocated by Larson and McKinley (1995), and the information obtained from such an analysis helps in determining intervention objectives.

The approach employed by Lunday (1996) to assessing classroom communication expectations recognized the importance of the perspectives of the teachers in influencing what communication skills adolescents need for success. What teachers perceive to be more and less important adolescent communication skills with them can set standards for adolescents' performances and influence their students' academic and personal success. To find out what high school teachers think are important communication skills for adolescents, Reed and Spicer (2003) asked grade 10 teachers to rank the importance of 14 communication skills. The skills represented a range of what would be considered primarily skills used for managing discourse (e.g., topic maintenance, conversational clarification and repair) and those related primarily to empathy and interpersonal relationships and considered to be addressee focused. Two metalinguistic/figurative language skills (verbal humor comprehension, appropriate slang usage) were also included among the 14 communication skills. Table 5.8 shows the teachers' ranking of the 14 communication skills from most to least

TABLE 5.8 High School Teachers' Ranking of the Importance of Communication Skills for Adolescents' Interactions with Their Teachers (in order from most to least important)

-
1. Relating narratives
 2. Presenting differing points of view or thoughts logically
 3. Employing conversational clarification and repair strategies
 4. Taking a conversational partner's perspective
 5. Turn-taking appropriately
 6. Using appropriate vocal tone
 7. Establishing and maintaining appropriate eye contact
 8. Selecting conversational topics
 9. Comprehending nonverbal communication
 10. Comprehending vocal tone
 11. Conveying messages tactfully
 12. Maintaining topics
 13. Comprehending verbal humor
 14. Using appropriate adolescent slang
-

Source: Adapted from Reed & Spicer (2003).

important. The skills ranked as relatively high in importance were ones generally associated with discourse-management strategies, while the least important skills were the two metalinguistic/figurative language skills. To identify potential areas of mismatch and, therefore, potential intervention objectives, students' degrees of ability with each of these communication skills can be compared to the relative importance attached to them by their teachers, not unlike the approach used with Lunday's (1996) checklist.

Intervention

Unlike much of the intervention with language-disordered youngsters, who are often naive about the purposes and objectives of intervention, there is a general consensus among professionals working with adolescents with language disorders that these adolescents must participate in planning their own intervention (Bray, 1995; Ehren & Lenz, 1989; Larson & McKinley, 2003). As Larson and McKinley (1985) write, there can be "no 'hidden agenda' when providing services for adolescents" (p. 72). The principle of no hidden agenda means that:

- Purposes of assessments are explained and results are shared with the adolescent.
- Responsibility for identifying, establishing, and prioritizing intervention plans and objectives is a task shared among the adolescent and relevant professionals (e.g., speech-language pathologist, classroom teachers, special educator).
- The reasons why particular skills included in assessments and/or targeted in intervention are explained to and discussed with the adolescent.

Among the several reasons for adopting this approach are the following.

- Adolescents who recognize and accept that they have problems with communication and believe that intervention can help often begin to identify their own communicative behaviors that they wish to improve and that are important to them.
- Involvement in determining their own objectives leads the adolescents to accept responsibility for their problems, to take ownership of the problems, and to realize that they have the major role in modifying their language skills.
- Taking responsibility for their own problems and ways in which to address them means that adolescents are more likely to be motivated to improve.
- It begins to address what is a major objective of intervention with adolescents—improve their “meta” skills, that is, metalinguistics, metacognition, metapragmatics.

Principles in Determining Intervention Objectives

Emphasize Strategies and Regularities. Objectives need to emphasize direct instruction that shows adolescents how to learn language and how to manage language demands of learning (Bray, 1995; Buttrill, Niizawa, Biemer, Takahashi, & Hearn, 1989; Comkowycz et al., 1987; Donahue, Szymanski, & Flores, 1999; Ehren, 2002; Larson & McKinley, 2003; Simon, 1998). That is, adolescents need to be taught strategies, rules, and techniques that will improve their communicative performances and their abilities to use their language to learn and function socially and vocationally. These are the skills that can be generalized to daily language use. The emphasis is, therefore, on using and improving metalinguistic, metacognitive, and metapragmatic abilities. Sometimes the terms *executive functioning* or *self-regulation* are used to describe the focus or processes related to this strategies approach, but as Singer and Bashir (1999) point out, “both are considered ‘meta’ constructs” (p. 265).

A number of different specific strategies approaches are described in the literature, for example, Self-Regulated Strategy Development (SRSD) Model (Graham & Harris, 1999), Strategic Process Model for Strategy Development (Wiig, 1990a), Kansas University Strategies Intervention Model (Deshler & Schumaker, 1988), Integrative Strategy Instruction (Ellis, 1993). What all of these have in common, according to Bray (1995), is that “students learn how to identify patterns in the information to be processed, select a plan of strategies to learn the information, implement the strategic plan, and later evaluate and monitor its effectiveness” (p. 67). This approach contrasts with intervention objectives focusing on tutoring in academic content areas. Intervention, then, includes teaching specific strategies and discussions about which of the strategies can be employed under what situations, including specific examples of other possible situations. Adolescents’ conscious attempts to acquire strategies and to generate more examples of where else to apply the strategies can enhance, in very practical ways, the students’ metalinguistic and metacognitive skills and facilitate generalization or bridging. Additionally, this approach stresses the pragmatic aspects of language and makes language functional for the adolescents, another guiding principle of intervention for adolescents with language impairments.

Authentic Intervention—but “Practice Makes Perfect.” Just as assessment processes with adolescents need to be authentic, so does intervention. Developing objectives that

emphasize functional communication skills is another principle of language intervention for adolescents. Singer and Bashir (1999) advise to

... avoid decontextualized interventions. Goals of intervention are not isolated from the day-to-day demands for communication and learning that students encounter. (pp. 271–272)

Authentic objectives include but are not limited to pragmatic language skills that promote positive human interactions, facilitate academic success, and allow people to operate on a day-to-day basis without recurring failures. Using information about what communication skills are more and less important to adolescents and their various communication partners in different situations, such as that shown in Table 5.9 as well as Table 5.8, can be helpful in selecting intervention objectives. As seen in Table 5.9, however, speech–language pathologists might not want to rely solely on what they believe would be important skills for adolescents because, as results of one of the studies shown in that table indicate, their opinions might differ substantially from those of adolescents, especially when adolescent peer interactions are being considered. When intervention centers on practical and relevant language abilities, adolescents are likely to recognize their importance and, therefore, be motivated to acquire them. This is especially true if the purposes of the objectives are explained and if real-life examples of effective and ineffective communication are provided.

It is unfortunate that for many adolescents with language impairments, their history of intervention will have been inconsistent, possibly with gaps in services, and objectives and directions of intervention may have suffered from a lack of coherence. This means that skills or strategies that might have been targets of intervention previously may have not been adequately learned in order to be stable or retained. Furthermore, these adolescents are typically inefficient learners who need additional time, repeated efforts, and more exposures than other students to learn and/or use a new skill or strategy. In contrast to what is their need for increased consistency with and enhanced learning opportunities, their intervention has more than likely been inconsistent with inadequate opportunities and repetition of learning trials. This situation creates a wide gap between the learning opportunities that adolescents need to have provided for them to learn and achieve and what is often provided for them. Therefore, Simon (1998) advises that focused practice and overlearning of strategies and their implementation is essential and that “drill is not necessarily bad” (p. 263). She adds, however, that focused practice and drill need to be meaningful and to take place in context. That is, work on intervention objectives needs to be authentic, there needs to be a lot of it, and it needs to be consistent.

Different Intervention Emphases for Adolescents at Different Stages. The period of adolescence spans seven or more years. If thought of in terms of the changes that occur in a young child from infancy to 7 years of age, it should not be a surprising idea that the developmental stage known as adolescence needs to be considered as consisting of substages, much in the same way that the 0–7 year period is thought of as several stages (infants, toddlers, preschoolers, primary-school age). When planning intervention, therefore, the adolescent’s stage must be considered and the strategies, activities, and objectives need to correspond to his or her social-cognitive level (Larson & McKinley, 2003).

In the early years of adolescence, teenagers with language impairments have several years of school ahead of them, so there is still opportunity to improve academic performance.

TABLE 5.9 Rankings of the Importance of Fourteen Communication Skills for Adolescents in Different Communicative Contexts (in order from most to least important)

<i>Whose Rankings</i> ¹ : Adolescents <i>Context: In peers' communication for positive peer relationship</i>	<i>Whose Rankings</i> ² : Adolescents <i>Context: In adolescent's own communication with peers for positive peer relationships</i>	<i>Whose Rankings</i> ² : Adolescents <i>Context: In adolescent's own communication with teachers</i>	<i>Whose Rankings</i> ³ : Speech-language pathologists <i>Context: In adolescents' communication for positive peer relationships</i>
1. Taking a conversational partner's perspective	1. Comprehending non-verbal communication	1. Turn-taking appropriately	1. Initiating topics of conversation appropriately*
2. Comprehending vocal tone	2. Taking a conversational partner's perspective	2. Taking a conversational partner's perspective	2. Selecting conversational topics
3. Conveying messages tactfully	3. Comprehending vocal tone	3. Presenting differing points of view or thoughts logically	3. Employing conversational clarification and repair strategies
4. Turn-taking appropriately	4. Using appropriate vocal tone	4. Employing conversational clarification and repair strategies	4. Presenting differing points of view or thoughts logically
5. Using appropriate vocal tone	5. Selecting conversational topics	5. Using appropriate vocal tone	5. Turn-taking appropriately
6. Establishing and maintaining appropriate eye contact	6. Conveying messages tactfully	6. Conveying messages tactfully	6. Comprehending verbal humor
7. Comprehending non-verbal communication	7. Presenting differing points of view or thoughts logically	7. Comprehending vocal tone	7. Comprehending non-verbal communication
8. Employing conversational clarification and repair strategies	8. Turn-taking appropriately	8. Relating narratives	8. Using appropriate adolescent slang
9. Selecting conversational topics	9. Employing conversational clarification and repair strategies	9. Establishing and maintaining appropriate eye contact	9. Relating narratives
10. Presenting differing points of view or thoughts logically	10. Establishing and maintaining appropriate eye contact	10. Selecting conversational topics	10. Establishing and maintaining appropriate eye contact
11. Relating narratives	11. Relating narratives	11. Comprehending non-verbal communication	11. Taking a conversational partner's perspective
12. Comprehending verbal humor	12. Comprehending verbal humor	12. Maintaining topics	12. Conveying messages tactfully
13. Maintaining topics	13. Maintaining topics	13. Comprehending verbal humor	13. Comprehending vocal tone
14. Using appropriate adolescent slang	14. Using appropriate adolescent slang	14. Using appropriate adolescent slang	14. Using appropriate vocal tone

* In this study, the item for topic initiation replaced the topic maintenance item in the other studies.

Sources: Adapted from: ¹ Henry, Reed, & McAllister (1995); ² Reed et al. (1999); ³ Reed, Bradfield, & McAllister (1998).

Relationships with peers are beginning to take on greater importance and there is greater expectation for appropriate interactions with a larger variety of people. For these reasons, intervention objectives with teenagers in the early years of adolescence that focus on language to improve both social and academic performance would likely be appropriate (Larson & McKinley, 2003). In contrast, teenagers in late adolescence, such as between 16 and 18 years of age, are likely to have concerns about vocational options and employment, and peer relations are more important than in the early adolescent years. For these adolescents, objectives that emphasize improving language for vocational, as well as social, situations may be more important. For adolescents in the years between the early and later stages of adolescence (i.e., between about 13 and 15 years), peer relationships have considerable importance and there is still some time to take advantage of academic input. However, vocational concerns may also emerge. For these reasons, there is considerable rationale for intervention objectives with these adolescents in the middle period of development to emphasize social, vocational, and academic language skills (Larson & McKinley, 2003).

Choosing Objectives for Success. One maxim that we know well about human learning is that nothing succeeds like success; we know that success in learning leads to more success. This is a particularly important principle to consider in selecting intervention objectives for language-disordered adolescents, especially in the early stages of intervention. An adolescent with a language impairment likely has a history of academic and personal failure and may believe that he or she is not capable of learning when language is involved. It is not unusual for language-disordered adolescents to resist or avoid such learning situations. Therefore, as Bray (1995) writes, “it is important for a student to see results soon after learning and trying a strategy in order to ‘buy into’ the program” (p. 69). When adolescents see that they “can do it” and that it makes a difference in real ways for them, they are more apt to try to do more and to improve. Motivation problems are commonly ascribed to adolescents with language disorders. Choosing objectives that promote quick success, particularly in the early stages of intervention, can help overcome some of the problems related to motivation.

Factors in Implementing Intervention Objectives

Direct Teaching. Intervention requires direct teaching of skills and specific strategies to adolescents (Ehren, 2002) so that they actually learn them and the analysis abilities needed to apply and evaluate them, to learn to recognize when the skills and strategies should be used and which should be tried, and to learn to self-initiate applying these. Other adolescents have learned a great deal of language, a great deal about how to learn, and a great deal about how to use their language to learn, usually without having been taught any of this directly; language-disordered adolescents have not, and there is little reason to believe that by the time these individuals reach adolescence they will learn these skills without being taught directly.

Considering Characteristics of Adolescents with Language Impairments. Implementing intervention objectives, and in particular direct teaching that focuses on a strategies approach, can be trickier than it might seem. The things that these adolescents need to learn to do require them to use the very abilities and skills that are typically weak for them and are actually considered to be characteristics of these teenagers. This is probably why the adolescents did not acquire the strategies and skills in the first place. Table 5.10 highlights what

TABLE 5.10 Discrepancies between Characteristics of Adolescents with Language Impairments and Requirements of Strategies Taught in Intervention

Some Characteristics of Adolescents with Language Impairments	Requirements Involved in Employing Language-Based Learning Strategies
<p>An adolescent with a language impairment likely has weak metalinguistic and metacognitive skills.</p>	<p>A strategies approach requires an adolescent to analyze and think about communicative situations and language demands of a learning task, that is, metalinguistic and metacognitive skills.</p>
<p>Many adolescents with language impairments are quite poor and inefficient information processors.</p>	<p>In essence, what this does is ask the adolescent to use what are weak metalinguistic and metacognitive skills, rather than use what might be stronger skills, to learn new strategies and apply them in new situations that, in themselves, are “meta” skills.</p>
<p>Inefficient information-processing abilities probably mean that an adolescent’s problem solving and task analysis activities are slow.</p>	<p>Using metalinguistic and metacognitive tasks can require that a considerable amount of information be stored in short-term or working memory long enough to be processed and mentally manipulated.</p>
<p>The educational system and interpersonal interactions expect quick responses; a language-disordered teenager may have learned over his or her many school years that adults and peers dislike incorrect responses less than delayed or no responses.</p>	<p>A strategies approach requires that the adolescent take time to figure out an appropriate approach to a problem and arrive at a correct answer.</p>
<p>The adolescent might have figured out that if he or she guesses but is wrong, an adult will probably explain and fill in the missing parts or move on to something or somebody else so that the language-disordered adolescent is let “off the hook.”</p>	<p>Guessing is the exact opposite of what is necessary for the considered, analytical approach involved in using strategies</p>
<p>To the adolescent, it may be better to respond quickly and be wrong than cause a delay or create a silence while trying to figure out the a correct response.</p>	
<p>There is the possibility of a long history of a language-disordered adolescent having been provided with inadvertent positive reinforcement for quick, ill-considered responses.</p>	
<p>Adolescents with language disorders may have habituated a “guessing strategy.”</p>	
<p>Response impulsivity is characteristic of many adolescents with language impairments.</p>	
<p>Adolescents with language impairments are often concrete thinkers.</p>	<p>A strategies approach involves both situational analysis and performance evaluation, which are generally considered to be quite hypothetical and formal thought processes.</p>
<p>Many adolescents with language disorders are passive and dependent learners; “learned helplessness” is a term sometimes associated with adolescents with language impairments.</p>	<p>Learning and using strategies requires that students initiate the process of analyzing a task, select one or more strategies from their repertoire and then apply these and do so independently without needing to be prompted by another person.</p>
<p>Adolescents with language impairments often fail to self-activate or self-initiate the application of strategies even when they have learned the strategies and where to use them.</p>	

might be incompatibilities and clashes between the requirements of learning and using language-related strategies and a number of the characteristics commonly seen in adolescents with language problems.

These adolescents have a long history—possibly as long as they are old—of “not quite having got it,” “it” being whatever was in the environment to be learned at any point in time. These adolescents are also victims of the “Matthew effect” (Stanovich, 1986), explained as real-life examples of the second part of the proverb, “The rich get richer and the poor get poorer.” Because adolescents with language disorders most likely started school with poor language skills when good language skills are required for becoming readers, they would not have learned to read fluently and well. And because reading is the greatest single source for further language acquisition and world knowledge, their poor reading skills mean that the gap between students with language problems and those able to take advantage of reading and formal education widens greatly through the early school years into adolescence. Because of the missed bits of information and the mislearning that have fed into these adolescents’ concept formation and knowledge base for years, Simon (1998) suggests that “over time, a great deal of *misinformation can be acquired*” and that students’ world knowledge can seem “quite weird” (p. 258). The misconceptions that adolescents with language impairment acquire means that they attempt to build new knowledge on top of flawed, distorted, and/or incomplete information. Wiig (1995) likens this to trying to build a house on a hole instead of a solid foundation. A somewhat different analogy is illustrated in Figure 5.6. In this illustration an adolescent’s world knowledge is conceived of as

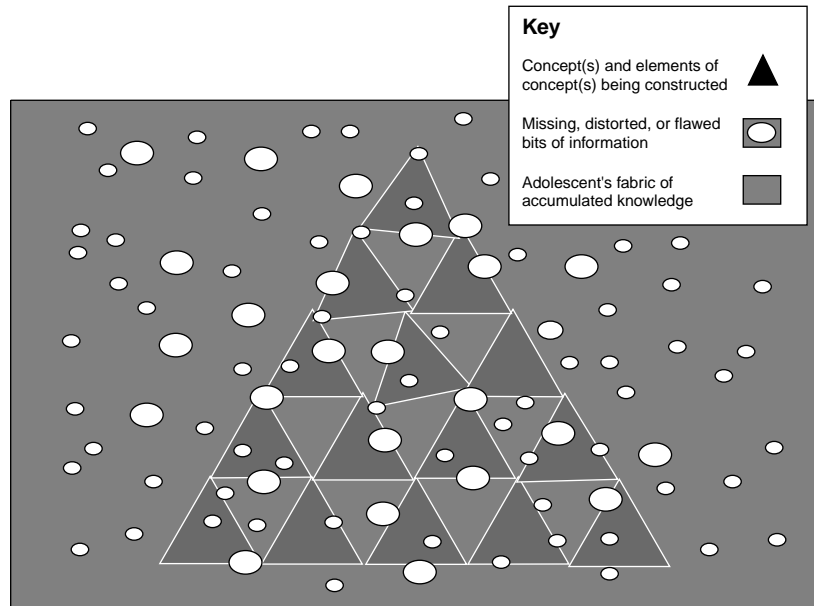


FIGURE 5.6 A Schematic Illustration of Adolescents’ Constructions of Concepts on an Incomplete Fabric of Accumulated Knowledge Flawed over Time by Missing Bits of Information as a Result of Early and Ongoing Language Impairments

a piece of fabric into which pellets from a shotgun have been fired and which have left randomly sized and randomly located holes in information. Concepts and knowledge that underpin the formation of new, larger, and more complex concepts are flawed, distorted, and undermined in unpredictable ways by the holes in knowledge. In working with adolescents with language disorders, professionals cannot assume that the concepts these teenagers have formed are similar to those of their normally achieving peers.

Intervention Approaches to Accommodate Adolescents' Language and Learning Characteristics. Although implementing intervention objectives for adolescents with language impairments might be tricky, a number of techniques and approaches can be helpful in getting around the barriers to learning raised by the language and learning characteristics exhibited by these adolescents. Among these are the following.

- Teach, expect, and reward an adolescent's self-activation and self-initiation in applying strategies and skills; stress independent learning; identify self-activation and self-initiation as intervention objectives in their own right. This particular approach attempts to replace dependent, passive learning behaviors with those characteristic of active and independent learners and those more in line with learner expectations in the high school years.

- Ensure overlearning and stabilization, plan for and build in redundancy, and incorporate repetition in many different situations; follow up; return regularly and frequently to previously targeted objectives to review performance and ensure the skills have been maintained; build in regular monitoring and checking of skills previously targeted but that are no longer active intervention objectives. All of this is especially important in light of what has probably been an inconsistent intervention history for an adolescent and the evidence that application of skills and strategies often break down during periods of stress, typically when they are most needed, even when these appeared to have previously been learned quite well (Bray, 1995).

- Because speed of response is the antithesis of what is trying to be achieved by a strategies approach for these adolescents, replace habituated guessing and response impulsivity with one that allows them to delay responding and provides for processing time. Increasing wait time before making responses has been found to improve the quality of the responses of school-age children with language-learning disabilities to higher-level cognitive questions involving synthesis of information and to increase their verbal fluency (i.e., reduce maze behavior) in relating the information (Ellis Weismer & Schraeder, 1993). These findings are consistent with information from educational research involving both school-age and university students (Kaplan & Kies, 1994; Tobin, 1986, 1987). However, many of those with whom adolescents interact in the educational system and in peer relationships are likely to expect them to keep up in conversational turn exchanges and with responses in interactions. It is important, therefore, to help these individuals to employ an appropriate wait time as well assist the adolescents to adopt pragmatically appropriate ways to delay responding, such as making a statement that indicates an intentional delay ("Let me think about that," "Mmmm"). For school-age children with specific language impairment, Evans and her colleagues (1997) found that the use of verbal pauses (e.g., "ah," "um") at the beginning of the children's turns during conversational interchanges predicted their use of longer utterances. Such responses mark a turn, signal awareness of the previous utterance, indicate a need for a response, and fill the space while providing time to comprehend what

was to be taken in and formulate a response. Such responses need to be well rehearsed and habituated, however, if they are to be of help to adolescents.

Although many adolescents with language disorders demonstrate a pattern of ill-considered, quick responses, there are some who do not respond at all or who exhibit long, silent pauses in their utterances (Dollaghan & Campbell, 1992), leaving silences to fill the spaces where others expect responses or disrupting the flow of conversation. If the reason for the silences is that an adolescent is using these “to buy” processing time, these inappropriate occurrences of unacknowledged silences, often misinterpreted by others as sullenness or obstinacy, can also be addressed by replacing the behavior with a more pragmatically appropriate delaying tactic involving a rehearsed statement or filler (Dollaghan & Campbell, 1992).

- Employ concrete, hands-on activities to work on abstract “meta” tasks. The idea is to use activities consistent with concrete cognitive levels—for example, sorting cards or objects, creating models, using paper and pencil or a computer to map concepts—to facilitate development, use, and learning of various higher-level cognitive “meta”-level tasks associated with a strategies approach.

- Reduce information-processing demands (e.g., how much information needs to be stored at a time in working memory, how much mental manipulation is involved in a task) by keeping needed information in the immediate environment. This can be accomplished by using intransient and stable stimuli (usually visual or graphic), such as lists, charts, to supplement or counter transient auditory stimuli. With this technique an adolescent can retrieve and consult bits of information in “permanent” (i.e., intransient) form that are needed to solve abstract or meta tasks or needed to implement a particular problem solving strategy.

Activities with an Authentic Focus That Integrate Aspects of Language. The suggested techniques above do not preclude the use of authentically based activities. In fact, the techniques can be ways to facilitate language-based strategies and to integrate work on several aspects of language. As an example, a functional activity might center around a very real life ability and, therefore, quite authentic objective, i.e., understanding a TV weather broadcast. A small-group setting might be used to address several functional aims: (1) to understand meanings of words, such as *precipitation*, *barometer*, and *prevailing*, as in *prevailing winds*; (2) to recognize cause–effect relationships based on the next day’s forecast; (3) to identify specific differences between formal register as used in a TV broadcast and informal register inappropriate for such a communicative situation; (4) to select words, phrases, and sentences appropriate for use in a formal communicative context such as giving a weather broadcast; and (5) to adopt a formal communicative style appropriately. We see that these objectives encompass semantic, syntactic, morphological, and pragmatic aspects of language at both the receptive and expressive levels, yet they center on a functional survival skill while promoting metalinguistic and metacognitive skills.

Service Delivery

In Chapter 4, several different models of service delivery were discussed. What we know about intervention for adolescents with language impairments is that traditional service delivery models, such as the pull-out model, are not effective if used as the sole intervention approach (Buttrill et al., 1989; Comkowycz et al., 1987; Ehren, 2002; Larson & McKinley,

2003). Boyce and Larson (1983) give four reasons for the ineffectiveness of these traditional models:

1. When secondary students are removed from their classrooms for short periods of time twice a week, the usual daily schedules are disrupted.
2. Secondary students who need to walk in and out of classrooms during class periods are viewed as different from their peers during a developmental period when conformity to the peer norm is important to them.
3. Intervention can be viewed as punitive because, in addition to the first two reasons, the adolescents “receive no credit for work that may be very difficult for them” (p. 23).
4. Establishing and maintaining relationships with service providers is difficult when these professionals are removed from the usual routine of the schools. Additionally, the traditional one-to-one intervention fails to promote communicative interactions and provide opportunities to practice new language skills in varied communicative contexts.

The other thing we know about serving adolescents with language disorders is that an indirect intervention service delivery model, such as collaborative consultation, by itself is typically not sufficient to address to the academic and social needs of many of these students. However, it is important to integrate the principles of this service delivery approach into a more encompassing model of providing intervention for these adolescents. That is, close collaboration and consultation among all professionals who interact with an adolescent is essential for a unified and integrated intervention program. Not only is this good practice, it is also consistent with the legislation that guides and funds service delivery.

An alternative service delivery model for providing direct language intervention for language-disordered adolescents has been proposed (Larson & McKinley, 2003; Work, Cline, Ehren, Keiser, & Wujek, 1993). In this model, existing blocks of time in the school’s daily schedule are frequently utilized for intervention. Students may be seen for an entire time period on a regularly scheduled basis, often five days a week corresponding with other academic class schedules. As with other classes, the students are generally seen in groups, although these groups are much smaller than the usual academic class. Small-group sessions facilitate interaction and communication practice. Furthermore, students can work on comprehension, production, and metalinguistic skills simultaneously. To describe such an intervention format, supportive titles, rather than punitive ones, are recommended, such as that of Larson and McKinley (1995) “Individualized Language Skills” or “Oral Communication Strategies” (p. 162). The Language Intervention Program for Secondary Students (LIPSS) (Comkowycz et al., 1987), implemented in Polk County Schools, Florida, selected the name Exceptional Student Education—Language Arts because the class “is taught under the rubric of a state-designed curriculum framework” (p. 204). A program in the Palo Alto Unified School District, California, chose the name Language/Study Skills Class (Buttrill et al., 1989).

Because the class schedule in this service delivery model is similar to that of other classes adolescents take, the intervention period can actually be added as a course in the school’s curriculum. In some instances, credit may even be given. The adolescents can be awarded grades, or their performances can be evaluated on a pass–fail basis. With this inter-

vention format, students' efforts are recognized, intervention is not viewed as penalizing or stigmatizing, and functional communication strategies can be learned and practiced in interactive situations. The model resolves the problems of traditional service delivery formats. Furthermore, because the format fits into the daily academic schedule, intervention becomes an integrated, accepted part of the school routine.

Summary

In this chapter we have seen that:

- Important aspects of language continue to develop into adolescence as teenagers gain communicative competence.
- Many gaps remain in our knowledge of normal adolescent language development, and this group of individuals with language impairments continues to be relatively neglected professionally.
- Gaps make assessment of language-disordered adolescents an especially challenging process that must rely heavily on nonstandardized procedures.
- Fewer standardized language tests have been developed for adolescents than for youngsters, and the validity of several of these adolescent tests has been questioned.
 - Intervention for language-disordered adolescents needs to:
 - Involve the adolescents in helping to set their own intervention objectives.
 - Focus on functional communication skills and emphasize authentic objectives in authentic contexts.
 - Consider an adolescent's developmental stage and use a variety of intervention techniques to work around the barriers to learning that an adolescent with a language impairment can exhibit.
 - Emphasize communication strategies and improve metalinguistic, metapragmatic, and metacognitive skills.
 - Shift from traditional service delivery models to accommodate the needs of these adolescents.

If only one point is to emerge from the information in this chapter, it is that language disorders negatively impact on adolescents' academic and personal successes in junior and senior high schools and limit their social, vocational, and educational opportunities as adults. Neglecting these language-disordered adolescents would be a sad professional commentary.