Roles and Responsibilities of Speech-Language Pathologists With Respect to Reading and Writing in Children and Adolescents

Executive Summary

The ASHA Guidelines for the Roles and Responsibilities of Speech-Language Pathologists With Respect to Reading and Writing in Children and Adolescents were developed to clarify those roles and responsibilities for speech-language pathologists (SLPs) in all practice settings related to the development of reading and writing among children and adolescents. The guidelines accompany the ASHA position statement on reading and writing, which indicates that SLPs play a critical and direct role in the development of literacy for children and adolescents with communication disorders, including those with severe or multiple disabilities. The position statement also indicates that SLPs make a contribution to the literacy efforts of a school district or community on behalf of other children and adolescents. Although the documents address specifically the roles and responsibilities of SLPs, they indicate that these roles are implemented in collaboration with others who have expertise in the development of written language, and that the roles vary with work settings and experience of all of those involved. The documents acknowledge that practice patterns (e.g., caseload priorities and size, service delivery models), and the program content and experiences of university-level academic programs need to be carefully assessed and monitored to assure effectiveness toward achieving literacy goals.

The position statement and the accompanying guidelines were prepared in response to a number of factors, including practical questions from ASHA members about the roles that SLPs should play in addressing reading and writing. In addition, development of the documents was motivated by the need for: (a) SLPs with the knowledge and skills to provide assessment and intervention for children whose persistent language difficulties frequently involve problems with learning to read and write; (b) understanding and advocating for the direct role SLPs should play in providing literacy instruction; and (c) collaborative partnerships between SLPs, teachers, administrators, and others to foster literacy acquisition among general education students at risk for or experiencing reading and writing disorders.


Index terms: Adolescents, children, literacy, reading assessment, speech-language pathology, written communication disorders, written language assessment, written language treatment

Document type: Standards and guidelines

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1 The scope of practice for SLPs includes literacy assessment and intervention for adults (who have developmental or acquired communication disorders, as well as for children and adolescents, but that work is beyond the scope of this set of papers.

2 The term written language refers to reading and writing and related processes.
The rationale for SLPs to play a critical and direct role in the development of literacy for children and adolescents is based on established connections between spoken and written language, including that (a) spoken language provides the foundation for the development of reading and writing; (b) spoken and written language have a reciprocal relationship, such that each builds on the other to result in general language and literacy competence, starting early and continuing through childhood into adulthood; (c) children with spoken language problems frequently have difficulty learning to read and write, and children with reading and writing problems frequently have difficulty with spoken language; and that (d) instruction in spoken language can result in growth in written language, and instruction in written language can result in growth in spoken language. The ASHA position regarding a critical and direct role for SLPs in reading and writing is consistent with the ASHA Scope of Practice in Speech-Language Pathology, which includes language and communication disorders in spoken, written, graphic, and manual modalities (American Speech-Language-Hearing Association, 1996) and with the ASHA Guidelines for the Roles and Responsibilities of the School-Based Speech-Language Pathologist (American Speech-Language-Hearing Association, 1999).

The fundamental connections between spoken and written language necessitate that intervention for language disorders target written as well as spoken language needs. As with difficulty in learning to listen and speak, difficulty in learning to read and write can involve any of the components of language—phonology, morphology, syntax, semantics, and pragmatics. Problems can occur in the production, comprehension, and awareness of language at the sound, syllable, word, sentence, and discourse levels. Individuals with reading and writing problems also may experience difficulties using language strategically to communicate, think, and learn.

The guidelines and accompanying documents have been written with a degree of detail to assist practitioners and academic program faculty to add to the knowledge and training SLPs already possess for supporting the development of: (a) spoken language as a foundation for learning to read and write; (b) sound and word level awareness for grasping the alphabetic principle; (c) comprehension and formula-

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3 In these documents, the terms problems, difficulties, and impairments are used interchangeably to describe concerns about spoken or written language development; where applicable, literature reviews maintain terminology of the original.
of literacy problems among older students entails (a) educating other professionals regarding risk factors involving all language systems, (b) participating on prereferral child study teams, (c) recognizing added literacy risks for children being treated for spoken language difficulties, (d) interviewing students, parents, and teachers about curriculum-based language difficulties, (e) monitoring classroom progress and other situations that justify formal referral for assessment or reassessment, and (f) suggesting dynamic assessment strategies to identify whether a language difference or disorder might be at the root of literacy challenges.

Assessing written language involves collaborating with parents, teachers, and other service providers to collect information using both formal and informal tools and methods, all of which are selected to be developmentally and culturally/linguistically appropriate. SLPs may either administer formal tests themselves or work as team members with others who administer the tests of reading and writing. The unique knowledge that SLPs bring to this process is their ability to assess the subsystems of language—phonology, morphology, syntax, semantics, and pragmatics—as they relate to spoken and written language. SLPs can contribute information about the degree to which a student has basic knowledge at the level of sounds, words, sentences, and discourse. Assessment activities are designed to answer questions about whether students are using their basic language knowledge and metalinguistic and metacognitive skills for reading processes involved in decoding, comprehending, and paraphrasing what they read, and for writing processes involved in spelling words, organizing discourse texts, formulating and punctuating sentences, and revising, editing, and presenting their work.

The guidelines outline assessment contexts and activities that vary with age and developmental level. At the emergent level, assessed areas include family literacy, phonological awareness, print awareness, and spoken language. At the early elementary level (kindergarten to third grade), assessed areas include rapid naming, phonological memory, letter identification, invented spelling, reading, writing, and spoken language. At the later level (fourth grade and above), assessed areas include reading, writing, curriculum-based language uses, metacognitive/ executive functioning, and spoken language. The need to provide literacy intervention for students with multiple or severe developmental impairments is also emphasized.

Literacy intervention roles relate to planning and implementing individualized intervention programs. Literacy intervention responsibilities involve responsibilities to provide research-based, balanced, culturally appropriate, developmentally appropriate, needs-based, and curriculum-relevant intervention. Examples of intervention program activities are described for children and adolescents in early childhood, early elementary, later elementary, and secondary programs. Strategies for building curriculum relevance and for teaching self-advocacy skills to students with language disorders are described in the guidelines.

Other roles and responsibilities for SLPs related to literacy include (a) providing assistance to general education teachers, students, and parents, (b) assuming collaborative literacy curricular responsibilities on behalf of all students, and (c) extending the knowledge base for students and colleagues.

In conclusion, it is noted that language problems are both a cause and a consequence of literacy problems. SLPs have the expertise and, therefore, the responsibility to play important roles in ensuring that all children gain access to instruction in reading and writing, as well as in other forms of communication. SLPs have appropriate roles related to all aspects of professional activity, including prevention, identification, assessment, intervention, and participation in the general literacy efforts of a community. These roles and responsibilities vary with the characteristics and needs of the children and adolescents being served and with the work settings and experiences of the professionals involved. Practicing professionals and university professors also bear responsibility for increasing their own knowledge—as well as that of the new generation of practitioners—about relationships among reading, writing, and general language development and disorders. The critical contributions of literacy competence to academic and social success and lifetime opportunities make it not only appropriate but essential that SLPs assume these roles and responsibilities.

Guidelines for Roles and Responsibilities

Speech-language pathologists (SLPs) play important direct and indirect roles in facilitating literacy for children with communication disorders (see Table 1 for a summary of variations on how roles may be implemented). The roles relate to prevention, identification, assessment, intervention, monitoring,
and follow-up. SLPs play other important roles for children with and without communication disorders, as well, including roles related to curriculum and instruction, advocacy, leadership, professional preparation, continuing education, and research.

Children show broad individual differences in the development of literacy skills. This variability can be explained both by intrinsic and extrinsic factors. Intrinsic factors include genetic, neurological, and other biological components, both confirmed (e.g., hearing status) and inferred (e.g., learning disability, specific language impairment, developmental disability). Extrinsic factors include cultural-linguistic and socio-economic backgrounds of the child and family, literacy opportunities, and instruction at home and at school. Because of these individual and cultural differences, sensitivity is needed in setting expectations for typical development. It is important for SLPs to work with families and other professionals to recognize variations that require specialized attention in all phases—including prevention, identification, assessment, and intervention—within diverse cultural communities (American Speech-Language-Hearing Association, 1983, 1985).

The exact roles assumed by SLPs vary across settings, depending on the policies and administrative structures of the region, agency, and mix of other professionals (e.g., special education teachers, reading specialists). Professionals practicing in public schools, for example, are affected by the regulations, policies, and procedures of their state and local educational systems. Many private practitioners are influenced by health care policies. Although role permutations may differ, the basic functions of SLPs in the area of literacy can be implemented in all professional settings.

In any of these roles, collaborative approaches are appropriate. Professionals who recognize the value of collegiality work in tandem with others to reach mutual goals. Collaborative efforts are informed and enhanced by the expertise and experience of others. They result in decisions and approaches that almost none of the individual professionals on a team would have arrived at independently (Idol, Paolucci-Whitcomb, & Nevin, 1986).

Roles and Responsibilities Related to Prevention of Literacy Problems

SLPs play an important role in the prevention of literacy problems. As many as half of all poor readers have an early history of spoken-language disorders. Catts et al. (1999) reported that 73 percent of second grade poor readers had had either phonemic awareness or spoken language problems (or both) in kindergarten. This makes it essential for early speech and language intervention to be planned deliberately to prevent, or at least ameliorate, later difficulties in learning to read and write. This role involves working with others to ensure that young children have opportunities to participate in emergent language activities, both at home and in preschool. SLPs also play important roles to assure that older children with developmental delays, or children who may have missed such experiences for other reasons, gain access to such activities.

The goal of prevention is to promote opportunities for success in spoken- and written-language interactions surrounding the world of print. The period of emergent literacy is the literacy socialization period in which a child develops increasing awareness of the world of print and understanding of the functions of literacy. This is the time in which a child acquires rudimentary knowledge about print before formal reading instruction begins. Emergent literacy refers to the skills, knowledge, and attitudes that are the developmental precursors to reading and writing (Sulzby, 1985a; Whitehurst & Lonigan, 1998). The components of emergent literacy can each be used to draw a child’s attention to print: (a) joint-book reading, (b) environmental print awareness, (c) conventions/concepts of print, (d) phonology and phonological processing, (e) alphabetic/letter knowledge, (f) sense of story, (g) adult modeling of literacy activities, and (h) experience with writing materials (Gillam & Johnston, 1985; National Research Council, 1998; Snow, 1983; Snow et al., 1998; Teale & Sulzby, 1987; van Kleeck, 1990, 1995, 1998). Language intervention aimed at acquisition of an adequate lexicon and knowledge of the rules of morphology, syntax, and pragmatics plays an important role in preventing reading difficulties as well. Any of the activities of emergent literacy can be modeled and enhanced for children at risk for difficulties learning to read and write. SLPs may play indirect or direct facilitative roles related to each of the components.

Strategies for Preventing Difficulty in Literacy Acquisition

Joint-Book Reading

The most appropriate role for encouraging joint-book reading is a combination of consultation and modeling. The direct and primary relationship in joint-book reading is a shared reading experience between parent (or some other caring adult) and child. During the interaction, they share the content, language, and images of children’s books (Ninio & Bruner, 1978). Frequent, regular storybook reading,
starting at an early age, is an important factor in predicting later success with reading and writing tasks (Shanahan & Hogan, 1983). During joint-book readings, adults make comments or ask the child questions about what has been read or what might happen next (Notari-Syverson, Maddox, & Cole, 1999).

Children's comprehension of literate language can be enhanced through these adult-child interactions across a variety of book genres (Snow, 1983; Thomas, 1985; Whitehurst, Falco, Lonigan, Fischel, DeBaryshe, Valdez-Menchaca, & Caulfield, 1988). Books that contain interesting language patterns that impart a sense of the cadence of written language, such as rhyme sequences and alliteration, are particularly recommended (Catts & Olsen, 1993; Ratner, Parker, & Gardner, 1993; Troia, Roth, & Graham, 1999). Older students who lack familiarity with literate language structures or who have developmental delays also need to interact with others around books. Materials should be chosen to be chronologically and developmentally appropriate and of high interest to students.

Environmental Print Awareness

Environmental print awareness is demonstrated when children recognize familiar symbols and demonstrate knowledge that print carries meaning. Preventive activities in this area include focus on such print symbols as—

- Familiar logos and signs for fast food restaurants.
- Street signs (STOP, EXIT), movie theater signs, logos on cereal boxes and toys.
- Familiar words in environmental contexts (e.g., “milk” on a milk carton; “happy birthday” on a greeting card).

Conventions of Print

Concepts of print are demonstrated when children show that they recognize print conventions and accepted standards or practices for interacting with printed materials. Activities to foster growth in this area may focus on book handling experiences that highlight—

- The left-right orientation of English print.
- The front-to-back directionality of book reading by asking (for example, “Show me where I should start reading”).
- Different forms of writing (for example, a letter versus a recipe).
- Spaces between words by pointing them out and talking about them.
- Punctuation in printed materials and its influence on how we read questions and exclamations.

Concepts of Phonology and Skill in Phonological Processing

Children enjoy playing with the sounds of spoken language long before they have the cognitive and metalinguistic abilities to talk about individual phonemes (Catts, 1991; Troia et al., 1999). In the emergent literacy period, they particularly enjoy sound play with—

- Nursery rhymes, alliteration, and poems.
- Finger plays.
- Chants and television jingles.
- Rhymes for children’s names.

Alphabetic/Letter Knowledge

Children demonstrate knowledge of the alphabetic principle, relating printed letters and their equivalents in spoken language, when they show that they recognize printed letters of the alphabet and the sounds they make in words. Enrichment suggestions for young children include:

- Naming letters, numbers, and frequent words.
- Using letter blocks, finger painting, or sponge letters to make words.
- Sorting pictures that begin with the same letter.
- Making lists of words that begin with the same letter.

Sense of Story

Evidence that a child is acquiring a sense of narrative is documented when a child can answer questions about a story, retell it, or produce story-like sequences spontaneously. Increasing a child’s sense of story can be accomplished through reading storybooks that have well-developed story structures and a logical plot sequence that leads to a clear conclusion. Adults can help children learn to recognize these structures by talking about their interesting and well-delineated characters and how the events of the story proceed in logical temporal and causal sequences. For young children, books that work well involve:

- Wordless pictures books that provide awareness of story, character, and other plot elements (e.g., *What Next Baby Bear?*, Murphy, 1983; *Pancakes for Breakfast*, dePaola, 1978; *A Boy, a Dog, and a Frog*, Mayer, 1967).
• Predictable stories with repetitive themes and rhyme sequences (e.g., *The Very Hungry Caterpillar*, Carle, 1987).

• Familiar daily sequences of events (e.g., *Clifford’s Birthday Party*, Bridwell, 1988; see Watson, Layton, Pierce, & Abraham, 1994, for other suggestions).

• Familiar stories and tales (e.g., *The Three Little Pigs; Goldilocks and the Three Bears*).

Repeated readings are useful to increase a child’s participation, language output, and quality of response (Teale & Sulzby, 1987). Sense of story also can be reinforced through role-playing in which children act out different parts of a book (Paley, 1981).

**Adult Modeling of Literacy Activities**

Literacy learners benefit from consistent and frequent opportunities to observe adults in natural interactions with written language. The quality of the parents’ own literacy behaviors, such as reading books, newspapers, and magazines, has been shown to affect children’s perception of the value of literacy (Hiebert, 1980). To foster this understanding, a child can be engaged as a “helper” in everyday activities that involve writing processes and purposes, such as—

• Writing down a phone number.

• Following a recipe, preparing a grocery list, looking up words in the dictionary.

• Reviewing instructions for a new game or toy.

• Licking and stamping envelopes for paying monthly bills.

**Experience with Writing Materials**

The provision of materials that permit children to write by themselves can support their emergent literacy learning. SLPs and other adults should make available an array of attractive writing materials (e.g., pens, pencils, crayons, markers, computers and children’s writing software) and an assortment of paper and other writing surfaces (e.g., tagboard, dry-erase board). The goal is to encourage any type of writing. This includes:

• Scribbling or drawing.

• Writing letters or letter-like characters and numbers (e.g., the first letter in the child’s name).

• Writing pretend notes (e.g., to the tooth fairy).

• Copying environmental print.

• Dictating a story to a wordless picture book.

• Using children’s writing software programs

Picture drawing is considered a preconventional form of writing (Sulzby, 1985b) that frequently facilitates written expression in young children (Genishi & Dyson, 1984). At the emergent level, a sense of fun is maintained and rote drills are avoided so that the child develops a pleasant association with literate activities.

**Roles and Responsibilities Related to Identification**

**Children At Risk for Reading and Writing Problems**

SLPs have a primary role in both early identification of literacy problems and in the identification of literacy difficulties among older students. The goal of identification is to locate children who are at risk for reading and writing problems before they experience failure (Wilson & Risucci, 1988). Early identification may take place during the preschool years or after formal reading instruction has begun, but before children become discouraged and enter the cycle of failure. For example, some children with language difficulties involving higher order processes may progress normally in early word-recognition skills, only to show difficulties when increased demands are placed on text comprehension. At that point, their need for language intervention may be identified.

At early or later stages in development, at-risk children may display subtle but significant language problems related to their literacy difficulties. SLPs’ knowledge of language development expectations and individual differences allows them to contribute to the identification of these children by explaining the language bases of such children’s literacy learning problems. When needs are identified, SLPs can consult with parents, teachers, and other professionals about the best ways to develop spoken-language skills while promoting reading and written-language development.

**Early Identification**

SLPs have both a role to play and the responsibility to participate in activities that will result in early identification of language-based difficulties that put young children (preschool through kindergarten) at risk for literacy problems. This need is emphasized in Public Law 105–17 (IDEA ’97), which strengthens Child Find commitments by state and local education agencies.
Identification involves the use of a set of strategies to decide who should be referred for further screening or evaluation so that early intervention can reduce the likelihood that a child will enter the cycle of failure. As part of these efforts, SLPs—

Design early identification activities to allow observation of predictors of early reading (e.g., phonemic awareness and letter/sound knowledge) (Torgesen, 1999) as well as other basic language systems—phonology, morphology, syntax, semantics, pragmatics—and emergent metalinguistic awareness (van Kleeck, 1994).

Educate teachers and other professionals regarding how to identify language factors associated with the later development of literacy problems, including the effects of limited literacy experience and lack of print awareness (Gillam & Johnston, 1985; van Kleeck, 1995, 1998), especially when accompanied by:

- Family history of speech and language development or literacy problems.
- Difficulties in phonological processing, including phonological awareness.
- Multiple articulation problems and/or reduced speech intelligibility.
- Word-finding difficulties, including delays in rapid automatic naming.
- Language comprehension problems.
- Discrepancy between auditory-language comprehension and spoken-language expression.
- Immature syntactic and semantic development.
- Delayed narrative discourse abilities.
- Verbal memory difficulties.

Collaborate with other professionals to establish a process to identify these and other risk factors and their potential contribution to literacy problems, using such tools as observational checklists (Catts, 1997).

Participate on prereferral child-study teams to focus on language bases of literacy problems.

Consult with parents, teachers, and other team members to decide whether a full diagnostic assessment is justified and whether other classroom modifications and supports should be implemented.

Identification of Literacy Problems Among Older Students

Different roles and responsibilities are entailed when SLPs participate in identifying language-related literacy problems among older students. For these students, SLPs—

Educate other professionals on how to identify language factors associated with literacy problems, including:

- Characteristics of speech- and language-development problems.
- Difficulties in phonological awareness, multiple articulation problems, and/or reduced speech intelligibility.
- Word-finding difficulties, including delays in rapid automatized naming.
- Language-comprehension problems, such as difficulty understanding grade-level textbooks, either narrative or expository, and engaging in inferential comprehension.
- Semantic and syntactic development problems, including difficulty with meta-level linguistic skills.
- Problems with executive functioning and other metacognitive strategies for guiding reading and writing processes.
- Discrepancy between auditory comprehension and spoken-language expression.

Participate on prereferral child-study teams to focus the process on potential language bases.

Consider whether students who are already being treated for spoken-language difficulties might require assessment related to reading and writing.

Recognize that students with spoken-language difficulties (even subtle ones) have heightened risks for later literacy problems.

Interview students, parents, and teachers to learn about their priorities and concerns relative to the student’s progress within the general education curriculum.

Identify students with possible literacy difficulties affecting their participation in classroom-based activities.

Work with teachers to monitor the progress of students who are having difficulty but are not candidates for comprehensive assessment and intervention activities.
Identify situations that justify formal referral for assessment or reassessment.
Suggest dynamic assessment strategies to identify whether a language difference or disorder might be at the root of literacy challenges.

Roles and Responsibilities Related to Assessment of Written Language

SLPs collaborate with parents, teachers and other service providers to assess written language. To provide appropriate assessments of literate language, SLPs must have detailed knowledge about the nature of written-language development and disorders. Children read, spell, and write poorly for a variety of reasons, and SLPs must know about these variations. Although the discussion of subtypes of literacy problems continues to develop in the literature, reading disorders can be viewed along several dimensions (Catts & Kamhi, 1999; Speece et al., 1999). Using the “simple view” of reading (Gough & Tunmer, 1986), one can observe various relationships between decoding and comprehension. Decoding problems are primary when individuals cannot transform print to words but can demonstrate relatively intact comprehension when written texts are read aloud to them. Comprehension problems are primary when individuals cannot answer questions about what they have read or paraphrase the meaning, even though they have read the words aloud with relative accuracy. Both decoding and comprehension problems are evident when individuals have relatively equal difficulty transforming print to words and understanding written language read aloud to them. Knowledge about the specific characteristics of decoding, comprehension, and writing difficulties guides the development of assessment protocols for testing hypotheses about relationships.

The unique knowledge that SLPs bring to this process is their ability to assess the subsystems of language—phonology, morphology, syntax, semantics, and pragmatics—as they relate to spoken and written language. At the word level, SLPs can identify a student’s grasp of the phonological, semantic, and morphological structure in speaking, listening, and metalinguistic tasks. At the connected discourse level, SLPs can assess knowledge of the rules of complex syntax, semantic relationships, cohesive devices, and text structures for comprehending literate language read aloud or formulating literate language in dictation to someone else. Although the processes are not identical (Badian, 1999), listening comprehension can provide insights about skill in reading comprehension (Catts & Kamhi, 1999; Oakhill, Cain, & Yuill, 1998). By factoring out print-to-speech (decoding) and speech-to-print (encoding) problems in the context of these spoken (but literate) language assessments, SLPs can contribute information about the degree to which a student has basic language knowledge at the level of sounds, words, sentences, and discourse. If evidence suggests a relatively intact underlying language system that is not being used for reading and writing, SLPs can recommend instruction in ways to bring basic language knowledge into play when performing written-language tasks. They also can contribute information about the degree to which a student may need additional focused intervention to learn more about the structures and functions of language in its spoken and written forms. By focusing on print-to-speech (word decoding) and speech-to-print (spelling) problems, they can help others understand how students’ knowledge and awareness of the phonology and morphology of words might contribute to difficulties in learning to read and write.

Informal and Formal Assessment

The assessment of written-language and related spoken-language competencies should include a variety of informal activities, such as interviews and strategic observations of students engaged in literacy activities, as well as samples involving speaking, listening, reading, and writing. Informal reading inventories, spelling inventories, or writing prompts with holistic scoring rubrics have been published in various forms. However, when the student is of school age, the texts, materials, and activities for these samples also can be drawn from the student’s school curricula and classroom experiences. These informal activities (i.e., dynamic or descriptive assessments) frequently provide adequate and relevant information to assess progress and plan intervention.

Formal tests also may be administered, but the professionals who administer them vary. In some professional settings, SLPs work on teams in which other specialists administer written-language tests. In such situations, SLPs work collaboratively to coordinate assessments and to interpret the collective results of spoken and written assessments. In other situations, SLPs act as primary evaluators and are responsible for administering or coordinating formal and informal spoken and written assessments. Regardless of which team member is responsible, even formal assessment is most effective when guided by interviews of the key participants—students, parents, and teacher—about a student’s curriculum-based needs (Nelson, 1998) and interpreted in collaboration with those who know the student best. Thus, standardized tools can be helpful in quantifying a student’s abilities relative to those of a
normative group when they are selected and used strategically, along with informal assessment activities. As mentioned throughout this document, assessment activities must be developmentally and culturally/linguistically appropriate, with consideration of reliability and validity, as well as normative population match. Although it is beyond the scope of this document to provide a comprehensive list of published tools for assessment of reading, writing, and spoken language, descriptions of such tools are provided in other sources (e.g., Goldsworthy, 1996; Nelson, 1998; Paul, 1995).

**Literacy Assessment Across Developmental Stages**

Both formal and informal assessment activities are used to delineate aspects of a student’s ability and disability profile and to identify targets for intervention. The specific areas that make up the literacy component of a comprehensive assessment vary depending on the developmental stage of individual students. For this reason, the assessment information presented below is organized into three broad stages of language and literacy acquisition: (a) **emergent** (preschool), (b) **early** (kindergarten to third grade), and (c) **later** (fourth grade+). All children and adolescents will fall somewhere on this continuum regardless of their disabilities.

**Emergent Level (Preschool)**

Areas that require assessment for learners at the emergent-literacy stage (regardless of chronological age) include

- **Family Literacy.** Parent interview or a parent questionnaire can be used to measure literacy artifacts and experiences in the home (Catts, 1997; Chaney, 1994; Morrison, McMahon-Griffith, Williamson, & Hardway, 1993). This information can provide valuable information for interpreting the results of assessment activities involving books and writing materials with which children may have had varying levels of experience. The questionnaire or interview should be in the language the parents use and should include gathering information about literacy in the family’s culture.

- **Phonological Awareness.** To assess this area, clinicians consider the normal course of development. Although variability in phonological awareness may be seen as early as 3 years of age, this variability is not nearly as related to early reading achievement as are differences in kindergarten or first-grade children. Further, most preschoolers would not be expected to demonstrate awareness of individual phonemes. Preschoolers should be beginning to attend to patterns of sounds in songs, books, and nursery rhymes. Assessments appropriate for preschool children generally involve the awareness of syllables and rhymes, rather than phonemes, in the context of verbal play and tapping or clapping out syllables. This may include identifying rhyming words as well as generating new rhymes. At this stage, children often generate nonsense rhymes as part of verbal play.

- **Print Awareness.** At the preschool level, it is appropriate to assess awareness of environmental print by showing a child familiar labels and logos and looking for signs of recognition. Preschool-age children should also know how to hold and orient a book and turn the pages. Evidence of pretend writing, with some letter-like shapes, can signal developmentally appropriate alphabetic knowledge and knowledge of conventions of print (Gillam & Johnston, 1985). Depending on instruction at home or in preschool, some children also learn about word and sentence boundaries and may learn to recognize and write their own names. Observations about these skills for students with severe physical disabilities may require adaptations using assistive technologies.

- **Spoken Language.** Assessment of spoken language at the preschool level should encompass the following with special care to acknowledge differences related to native language or cultural differences.
  - **Phonology:** Representation of the child’s knowledge of the sound system in speech production and discrimination.
  - **Lexical Semantics:** Comprehension and production of concrete and relational vocabulary, including word finding.
  - **Sentence-Level Syntax, Morphology, and Semantics:** Comprehension and production of grammatical word and sentence forms in terms of utterance length, complexity, cohesive and transitional devices, and meaningfulness.
  - **Narrative Discourse:** Formulation of personal narratives or story retells (Culatta, Page, & Ellis, 1983), and analysis using one of the techniques available (Hughes, McGillivray, & Schmidek, 1997; Nelson, 1998; Strong, 1998).
Early Elementary Level (Kindergarten–Third Grade)

Assessment at the early elementary level may involve administration of formal tests but can be accomplished informally by consulting with a child’s teacher and other professionals, and by examining existing assessment data, including previous educational test results, portfolio assessments, miscue analyses, running records, and other curriculum-based assessments. Information also can be obtained through direct observation of a child’s reading and writing skills. In some cases, formal tests may be administered in addition to these informal measures, but they are not always necessary. Areas that require assessment for early elementary-level students include the following:

Phonological Awareness. A number of standardized, experimental, and informal assessment instruments are currently available to measure phonological awareness using such tasks as rhyming, syllable and phoneme segmentation, and syllable and phoneme blending. Again, however, assessment in this area requires a thorough understanding of the developmental expectations and sociocultural factors that affect them. Although researchers have not fully delineated what constitutes normal development of speech-sound awareness, some guidelines are available (Catts, 1999; Simmons & Kameenui, 1998; Troia et al., 1999; Torgesen & Mathes, in press; van Kleeck & Schuele, 1987). Assessments of phonological awareness at the early elementary-level should take into account the following considerations:

- Although phonological awareness has a biological basis and, in part, follows a maturational schedule, it is heavily influenced by children’s language and literacy experiences. Therefore, what may be “normal” for children in one school district or geographical region may not be for those from another district or region. This circumstance may necessitate the development of local norms for some instruments.
- The phonological awareness abilities of kindergarten children are clearly different from those of first-grade children. Some phonological awareness instruments that are appropriate for kindergarten children do require judgments about phonemes (e.g., selecting which of three words begins with a different sound). However, such tasks do not require the explicit awareness of phonemes that older children use when asked to segment, identify, or manipulate the phonemes in words. Phonemic awareness (as compared with earlier forms of phonological awareness) is not typically found in young children until about the beginning of first grade (Blachman, 1984). Explicit awareness of phoneme-size units of speech generally requires direct instruction or focus on the phonemes in words. Typically, this comes with children’s introduction to the alphabet and how it works. Therefore, in most cases, assessment at a phonemic level of awareness becomes appropriate for children at about 6 years of age.
- It is important to assess knowledge of sound-symbol relationships in addition to phonological awareness, particularly for students beyond first grade (e.g., with non-word reading tasks). Research suggests that phonological awareness explains only a small amount of variability in the growth of word decoding skills beyond that accounted for by the present level of decoding ability (Torgesen, Wagner, Rashotte, Burgess, & Hecht, 1997).

Rapid Naming. Measures of rapid automatic naming of visually presented symbols (e.g., letters, digits, common objects) may provide information about probable future growth in reading achievement. A number of studies indicate that among children experiencing reading difficulties, those who also perform poorly in rapid naming may be most at risk for continued failure in learning to read (e.g., Bowers & Wolf, 1993; Denckla & Rudel, 1976; Scarborough, 1998). When administered in kindergarten and first grade, these measures explain variability in reading achievement not accounted for by measures of phonological awareness. This does not mean, however, that rapid naming tasks should be used in intervention. To learn to read, children need to be given instruction in reading.

Phonological Memory. Measures of short-term and working memory such as memory-span tasks, (i.e., repeating random strings of digits, words, or letters presented once auditorily) or other tasks such as nonword
repetition or competing processing tasks provide information related to the child’s ability to encode, store, and retrieve sounds encountered briefly. Difficulties in phonological memory are reported in students having language impairments (Montgomery, 1995) and severe reading disabilities (Torgesen & Wagner, 1998). Performance on these tasks is correlated with difficulties with phonemic deletion/manipulation (Wagner, Torgesen, Laughon, Simmons, Rashotte, 1993) and puts children at risk for difficulties acquiring skills in using sound-letter relationships to decode new words (Torgesen & Wagner, 1998).

**Letter Identification.** Children who are slow to learn the names of the letters of the alphabet are typically slow to acquire word decoding skills. Teachers often can provide information about a child’s letter-identification ability. SLPs also may find it helpful to identify whether children have differentiated concepts of the names of letters and the sounds of letters. Intrusions of letter names when a child is attempting to “sound out” a word can interfere with word-encoding efforts. Letter naming, therefore, may be viewed more appropriately as an assessment task than as an intervention target for children having difficulty learning to read. Some accommodations need to be made to assess this area for individuals who have severe disabilities and are nonspeaking. Alternative ways to respond may yield just as much information about the student’s ability to name the sounds or letters.

**Invented Spelling.** A number of systems have been established for describing developmental spelling-skills level (e.g., Bear, Invernizzi, Templeton, & Johnson, 2000; Gentry & Gillet, 1993; McGee & Richgels, 1990). Assessing a child’s ability to go from speech to print (using paper and pencil, electronic, or other means to spell) may be a particularly appropriate role for an SLP, who can consider the child’s accuracy of phonological representation of a word in speech. SLPs look for evidence that the child has acquired phonological awareness and can encode speech sounds into letters. Developmental progressions in the grapho-phonemic (letter-sound) representations of words usually include the following:

- **Nonspelling:** Some alphabet knowledge but no letter-sound knowledge and no concept of word.
- **Early invented spelling:** Nearly complete alphabetic knowledge, letter-name strategy, frequent omission of vowels, encoding only part of a word.
- **Purely phonetic spelling:** Based strictly on letter-sound correspondences, letter-name strategy for long vowels, omission of unstressed vowels and nasals before consonants, segmentation of letter strings at most word boundaries.
- **Mixed (phonetic and visual) spelling:** Beyond one-to-one correspondence of sounds and letters; attention to familiar visual configurations of irregular spellings and word parts, such as prefixes and suffixes; knowledge of several different conventions for encoding the same sound; frequent correct spelling of short vowels; knowledge of basic English spelling, such as placing a vowel in every syllable.
- **Fully conventional spelling:** The use of the basic rules of the conventional English spelling system, recognition of own spelling errors, large repertoire of learned words with irregular spellings.

**Reading.** In the early elementary years, formal and informal measures of reading should include tasks designed to assess at least the following:

- **Single-word decoding:** Both real words and pseudo-words.
- **Oral reading fluency.** Number of words read correctly in a given time period with appropriate intonation patterns.
- **Passage comprehension:** Measured with questions, paraphrasing, and story retelling tasks (Gillam & Carlile, 1997).

**Writing.** Written-language samples provide rich opportunities to measure both the processes and products of literacy production tasks. This information also is best gathered with a test battery that includes both formal and informal measures.

- **process measures, including evidence of planning, e.g., webbing (the graphic representation of ideas in a nonlinear fashion, connecting words with lines that looks like a “web”), brainstorming, story mapping, attention to task, com-
posing, rereading, reflection, and revising.

- **Product measures**, including number of words produced (fluency) and measures of sentence formulations, word usage, discourse organization, spelling, as well as measures of the mechanics and conventions of written language, in comparison with spoken-language samples.

**Spoken Language.** In addition to the areas of spoken language assessed for the emergent reader (phonological, morphological, syntactic, and semantics from sound to discourse level), assessment of literacy-related spoken language in the early elementary years includes information regarding at least four areas. The first three provide insight into the manner and efficiency with which a child organizes, stores, and accesses information in the semantic system. The last suggests measurement of how well a child processes connected discourse beyond the sentence level.

- **Definitions:** Ability to generate formal or hierarchical definitions or to identify appropriate words given multiple choices.
- **Naming:** Ability to retrieve words from one’s mental lexicon.
- **Figurative language:** Comprehension and production of nonliteral language uses such as idioms, similes, and ambiguous sentences.
- **Listening comprehension:** Demonstrating understanding of paragraph-length spoken discourse through retelling, paraphrasing, and question answering.

**Later Level (Fourth Grade and Above)**

When students transition from third to fourth grade, they are expected to have mastered certain prerequisite skills for written language. These include a vocabulary that is available to learn content subjects; facility with longer and more complex sentence constructions that appear in nonfiction textbooks; the fast application of skills; self-imposed organizational strategies; and self-directed, independent work habits. In addition, students are faced with increased demands for spoken and written products as well as for speed and accuracy of performance. As students progress from late elementary through middle and high school years, there are increasing demands for the understanding and use of higher levels of abstraction and complexity in both spoken and written forms. Students are expected to handle this with more and more independence as well. Thus, assessment across this age span necessitates at least these additional considerations:

**Reading.** In addition to earlier assessed components, assessment information for older students should be obtained regarding—

- **Knowledge of derivational morphology and orthographic patterns of irregularly spelled words:** This includes prefixes and suffixes with Latin or Greek etymology (Apel & Swank, 1999).
- **Knowledge of different text structures and genres:** Such as narratives, including biography and fiction, poetry, and expository passages.
- **Knowledge of the different purposes of text:** Such as to persuade, inform, or entertain.
- **Strategies for managing different styles of reading:** Such as skimming, reading for overview, analytic reading for complete meaning, critical reading for interpretation.
- **Strategies for facilitating comprehension, storage, and retrieval:** Such as skimming for structure and important points using headings and subheadings, posing questions as advance organizers, using end-of-chapter questions and rereading to check understandings, and taking notes.

**Writing.** Written-language samples of different structures and genres can be evaluated on multiple levels (Isaacson, 1985; Nelson, 1998; Scott & Erwin, 1992) using measures similar to those used for younger students. As for younger students, both writing processes and products should be considered. Measures might include:

- **Productivity/fluency:** Counting the number of words produced.
- **Syntactic maturity:** Considering T-unit length, the average length of main clauses with their dependent clauses; clause density; and grammaticality.
- **Vocabulary:** Describing unusual and/or multisyllabic words.
Spelling/morphology: Noting phonological and morphological aspects of regular and irregular spellings.

Text organization: Using rubrics to rate narrative or expository discourse (Hedberg & Westby, 1993; Hughes et al., 1997; Westby & Clauser, 1999).

Conventions: Counting errors of punctuation, capitalization, or paragraph formation.

Curriculum-Based Language Assessment. Curriculum-based language assessment (CBLA; Nelson, 1989) differs from other forms of curriculum-based measurement (CBM; Tucker, 1985) in its focus on whether students have the language skills to learn the curriculum, rather than on whether they are learning the content of the curriculum, as other forms of CBM imply. CBLA is important for any school-age student with language-learning difficulties, but its importance increases as older students become more dependent on reading and writing to learn in all areas of the curriculum. If listening, speaking, reading, and writing observations all use the student’s actual curriculum materials, intervention strategies can then be designed to promote authentic and meaningful language and communication skills that are functionally related to a student’s daily experiences.

Metacognitive/Executive Functioning. Language and literacy skills must be viewed within the context of level and quality of an older student’s metacognitive (or executive) functioning (Singer & Bashir, 1999). This involves the ability to actively plan, organize, apply, and monitor one’s own thinking, information, and behavior. For example, a student may not be aware of his or her failure to comprehend a reading passage, may use inappropriate comprehension strategies for the type of reading passage, or may employ ineffectual study strategies for the nature of the homework assignment. Thus, strategic reading, organizational strategies, study skills, and comprehension monitoring are areas of metacognitive assessment.

Spoken Language. In addition to the previous suggestions, the focus of spoken-language assessment related to literacy concerns for older students is on the comprehension and production of higher order language and metalinguistic skills, including:

- Polysemous vocabulary: Words that have multiple meanings.
- Figurative-language forms: Sophisticated nonliteral language uses such as idioms, metaphors, proverbs, humor, poetic language.
- Literate lexicon: Rarer and more abstract vocabulary that occurs in scholarly contexts.
- Synonyms and antonyms: Word equivalents and word opposites.
- Inferential comprehension and reasoning: The integration of meaning within text, analogies, verbal problem solving.

Assessment Practices That Guide Intervention

A successful literate language assessment will provide enough information about how the student participates in current curriculum and what types of scaffolding or strategies appear to facilitate performance. The assessment results can then be used to design intervention programs in collaboration with teachers, parents, and other service providers. For all ages, this is an ongoing process before, during, and after treatments that will provide direction for intervention to attain improved spoken- and written-language proficiency.

Roles and Responsibilities Related to Literacy Intervention

SLPs have a variety of roles and responsibilities with regard to literacy intervention, but in general they must ensure that students with special needs receive intervention that builds on and encourages the reciprocal relationships between spoken and written language. Such intervention should focus on the underlying goal of improving language and communication across both spoken- and written-language forms. It also should be relevant to the general education curriculum and address the needs of different types of students, including those with mild-to-severe disabilities, individuals who use augmentative and alternative communication (AAC), individuals who are deaf or hearing impaired, and those speakers of other languages who have language impairments.
Roles for SLPs in Intervention Targeting Literacy

The specific roles assumed by SLPs vary with employment setting and availability of other professionals who can provide language-focused interventions for problems with written-language development. However, the intervention work of the speech-language pathologist should always be collaborative in nature, working closely with teachers primarily responsible for literacy instruction, as well as other resource personnel providing intervention. For those working in schools, it is a requirement of the 1997 reauthorization of the Individuals with Disabilities Education Act (U. S. Congress, 1997) that intervention be relevant to the expectations of the general education curriculum. For those working in other settings, curriculum-relevant intervention remains a responsibility. The following is a partial list of the roles SLPs may assume as part of their literacy-focused language intervention activities.

Plan curriculum-relevant individualized intervention programs, such that—

- Particularly difficult aspects of the district’s reading and writing curriculum are highlighted.
- Therapeutic targets for school-age children are written with reference to progress in the general education curriculum.
- The plan for who will provide direct and/or indirect or consultative services makes optimal use of expertise among members of the team.
- Goals and objectives are individualized to target the specific aspects of reading and writing that individual students are missing (e.g., so that children who can decode adequately but have difficulty comprehending will receive services to address their needs).

Implement curriculum-relevant individualized plans as an outcome of the assessment process, in which—

- The content and contexts of intervention are drawn from, or are directly related to, curricular content and natural contexts at the child’s preschool or grade school (e.g., by scheduling time in classrooms to coincide with writing process workshops or asking students to bring textbooks and homework into private therapy sessions).
- Students gain access to the general literacy curriculum by participating in classroom-based programs taught by SLPs at the elementary level or in language arts/English courses taught by SLPs at the secondary level.
- Spoken-language interventions are designed to support written-language development and vice versa (e.g., by supporting articulation practice stimuli with print symbols as well as oral models).
- Intervention is aimed at helping students acquire skills and strategies for decoding/encoding and comprehending/formulating language at the sound, syllable, word, sentence, and discourse levels, depending on the students’ individual profiles and needs.
- Activities support students in their development of phonological awareness, word recognition, and spelling skills by helping them form associations between how groups of letters and speech “chunks” look, sound, and feel in the mouth.
- Activities are aimed at helping students to integrate knowledge about spoken and written language and to apply that knowledge strategically, using technological supports, such as computers and children’s writing software.
- Intervention targets the most intact level at which success can be achieved (although skills may be isolated for concentrated practice).

Provide assistance to modify the general curriculum and instruction with the aim of increasing the student’s access to and ability to be successful in the general education curriculum by using a variety of collaborative strategies, including:

- Collaboration with teachers to develop a comprehensive, balanced approach to literacy instruction for students with language disorders.
- Provision of direct, explicit instruction targeting reading and writing for students with language disorders to help them gain access to the general curriculum and the use of typical technological supports, such as computers.
• Collaboration with teachers to design and implement literacy programs for students with other communication needs, such as students with deafness or hearing impairment, mental retardation, autism, or severe communication impairment—some of whom may need AAC or other specialized computer or low-technology supports.

• Assistance for teachers in making appropriate modifications to classroom literacy practices, consistent with modifications listed on students’ Individualized Education Programs (IEPs).

Responsibilities to Provide Research-Based Intervention Programs

With the roles of the SLP in literacy intervention come responsibilities to provide services with best practice attributes, among them intervention practices that are research-based. As examples, the following findings and their implications are particularly relevant for planning intervention for problems involving written language:

• Phonological awareness training has the greatest impact on reading when combined with explicit instruction of the alphabetic principle and its application to decoding and spelling words (Ball & Blachman, 1991; Bradley & Bryant, 1985; Torgesen, 1999). The implication is that, beyond the preschool years, exercises in isolated phonological awareness activities (e.g., rhyming) are not the most effective use of time. Intervention should move directly from segmenting/blending phonemes to applications in word decoding and spelling.

• Decoding activities alone are not enough, but should be implemented hand-in-hand with fluency-building activities (e.g., guided repeated readings, increased time spent in reading).

• Children cannot be taught to spell all the words they need to know. An ambitious spelling curriculum can teach only about 20% of the words that an adult writer knows how to spell (Graham, Harris, & Loynachan, 1996). The implication is that spelling techniques should encourage a child to recognize and think about word patterns and principles and to apply that knowledge to new words. Spelling work should include activities that target associations between orthographic and meaning regularities in words, using high-frequency words.

• Spelling problems persist in many children, even when improvement is made in other areas of literacy, such as reading comprehension (Bruck, 1993). The implication is that spelling should be targeted early and consistently over the course of intervention, and it can be integrated with reading and writing intervention at the discourse level. Management of spelling problems with the teaching of self-monitoring and repair strategies also should be included.

• Awareness of text structure influences listening, reading, writing, and formulation of literate spoken discourse. Helping students gain explicit knowledge of text structures and linguistic cohesion devices may help them to improve their reading comprehension and written discourse structures, and vice versa. Narrative text structure can be targeted in early elementary grades, but many early elementary students need to be given opportunities to understand and compose informational (expository) texts as well (Calkins, 1983). At least from the third grade on, the expository text genre becomes an important element of the general education curriculum and a major medium for acquiring content knowledge about academic subjects. These experiences are particularly critical for children with severe disabilities, who traditionally have been underexposed to literacy experiences (Koppenhaver, Coleman, Kalman, & Yoder, 1991). Literacy contexts also have possibilities for encouraging advances in social-cognitive communication (Donahue, Szymanski, & Flores, 1999; Hewitt, 1994; Schairer & Nelson, 1996).

• Good readers and writers are those who are strategic; that is, they know why they are reading/writing a particular text and have strategies they can bring to bear on these tasks. The development of such strategies follows a particular course (Bereiter & Scardamalia, 1987). This predicts that children as young as second grade can be taught to “read with a purpose,” but the same children might have difficulty making extensive revisions to a piece of writing. The implication is that, within a developmental perspective, intervention in strategic reading, writing, and spelling can be targeted for children as at least as young as first grade. Strategic ap-
Approaches to literacy instruction should continue throughout the age span of intervention (Graham & Harris, 1994, 1999; Graham, MacArthur, & Schwartz, 1995). Examples of strategic literacy goals have been summarized as “before, during, and after” activities involving the reading of academic texts (e.g., Merritt & Culatta, 1998).

- Because of its permanency, written language is available for extensive reflection and revision, whereas spoken language is transient and temporary. Intervention focused on writing offers opportunities to help children learn to produce better written-language products while developing their social-communication, reading-decoding, and comprehension abilities (Donahue, Szymanski, & Flores, 1999; Scott & Erwin, 1992; Westby, 1999). Connections between written and spoken language can be built, with the result that strength in one modality may be used to improve the other. For example, story writing might be used to reinforce spoken-language goals by helping the child to focus on word-final grammatical morphemes in print either on paper or a computer screen. The synthetic speech of a computer software word processor can enhance feedback regarding the presence of grammatical morphemes, and their function in conveying shades of meaning, such as past tense, can be made salient in the context of authentic discourse activities. Alternatively, the child who is a reluctant writer might be encouraged to construct a story by first telling it orally, perhaps in dictation, then work on getting the words and sentences down on paper or in the computer. Strategies for using newly learned sound-symbol association knowledge can be taught—for instance, saying words slowly, stretching out the sounds in order to feel and listen to them in sequence while spelling novel words to fulfill communication purposes.

- Although many children with literacy problems have deficits in phonological awareness, such deficits rarely occur in isolation. For example, in one study of a representative sample of second-grade poor readers, more than 50% had a history of significant language deficits in kindergarten, but only a small percentage (14%) had language problems limited to phonological awareness and retrieval (Catts, Fey, et al., 1999). Many poor readers have a history of deficits in vocabulary, grammar, and narration in addition to or in the absence of problems in phonological awareness. The implication is that the early stages of literacy instruction should not be limited to phonological awareness activities. Rather, children need to experience reading, spelling, and writing for authentic communication purposes in which vocabulary, grammar, and discourse skills converge. For example, a child might begin to risk more complex structures when given opportunities to write notes to partners who respond to the meanings rather than to any mistakes.

- Many general educators recommend that students also be given extensive opportunities for free writing (at least 20 minutes per day) to develop confidence and fluency in writing. Children who have not yet acquired sufficient skill to produce invented spellings for most of the words in their vocabulary may need additional supports to participate in such activities, but they should not be isolated from them. Children with disabilities can also benefit from being included in computer-supported writers’ workshop activities with their general education classmates and support from speech-language pathologists (Harris & Graham, 1996b; Nelson, Bahr, & Van Meter, in press).

**Responsibilities to Provide Balanced Literacy Intervention**

Beyond the responsibility to provide intervention that is consistent with what research has shown to be necessary and effective for children with literacy problems, SLPs have a responsibility to contribute to the design of intervention approaches that are balanced in focus. Although formal test results can be helpful in tailoring programs to meet individual learning profiles, they alone cannot provide information that leads to intervention relevant to a particular child or adolescent’s needs. Rather, programs should be aimed at targets and contexts identified by parents, teachers, and children themselves as important. In addition, programs targeting literate language should be deliberately designed with a balanced focus on word decoding/encoding and language comprehension/composition skills and attention to the child’s sociocultural heritage and with the aim, as much as possible, of keeping the child or adolescent in the general education curriculum.

To develop appropriately balanced intervention programs, it is the responsibility of SLPs to identify inadequate language skills in authentic activities so
that they can become the targets of focused instruction. Although intervention aimed at developing word- and sentence-level skills may be isolated at times for purposes of developing explicit awareness and/or practicing to a particular standard, for the most part such skills should be taught, to the degree possible, in the contexts of authentic literate language uses. Students also need experiences with different genres and text structures. Activities should be designed specifically to teach students with special needs to apply new knowledge and skills in functional contexts for authentic reading, writing, listening, speaking, and thinking purposes. Contextualized activities should not be saved for the last “carry over” stages of intervention. They play an important role in the development of new skills and their becoming automatized from the earliest sessions of treatment.

**Responsibilities to Provide Culturally Appropriate Literacy Intervention**

As in other aspects of communication intervention planning, the conduct and interpretation of assessment activities, and the design and implementation of intervention programs, must be nonbiased and culturally sensitive (Gutierrez-Clellan, 1999). SLPs working with children from cultural and linguistic groups with which they are not familiar must engage families, cultural informants, bilingual SLPs, or translators, if necessary, to ensure the provision of appropriate services. The occasions for such steps are addressed in other ASHA policies and position statements (ASHA, 1983; 1985).

In literacy-related intervention, as in other aspects of language intervention, children should never be considered to have language impairments because of dialectal or linguistic differences; nor should children with language impairments be denied language intervention services solely because they are members of bilingual or bidialectal communities. The literacy risk is considerably higher for children with cultural and linguistic differences, however. Reading results from the National Assessment of Educational Progress (NAEP) have shown fourth graders with such differences to be almost twice as likely as their peers to lack “basic” reading skills (Snow et al., 1988).

In some work settings, children who are learning language normally in a linguistically diverse environment can appropriately receive assistance from SLPs who collaborate with others to design activities that will encourage literate language. The key in such instances is that it must be clear to all concerned (including the child, the child’s parents, and all others) that the assistance is not based on an assumption or evidence of communication impairment. In working with students from a variety of cultural backgrounds, it is also important to use culturally relevant reading and writing materials and tasks.

**Responsibilities to Provide Developmentally Appropriate Literacy Intervention**

Two levels of developmental concern should be considered when designing literacy intervention programs. Knowledge of the child’s place in the typical developmental sequence is of course a primary concern. Knowledge of the child’s place relative to typically developing same-age peers is also important. Balancing the two levels of concern is key to providing individualized, developmentally appropriate intervention.

**Early Childhood Intervention Programs**

For preschool-age children, intervention programs should be balanced by providing activities designed to target impaired communication skills with opportunities to foster emergent literacy. The aim is to use knowledge about prevention so that literacy learning risks do not become realized as children with early-identified communication problems reach school age. In many cases, the SLP’s role in prevention is largely a collaborative one, targeting language acquisition directly, while also assisting parents, day care providers, and early childhood educators to develop strategies and seek opportunities to provide many emergent literacy experiences with books and other forms of print.

**Early Elementary Intervention Programs**

The balance in intervention programs for early elementary school-age children will naturally shift to greater emphasis on word decoding and encoding, as these are appropriate developmental expectations for children at this level. The importance of acquiring skill in comprehending more complex literate syntax and discourse structures remains; however, “learning to read” efforts in the early elementary years must yield children who are competent, automatic word decoders. Regardless of their ages, children who struggle to learn word decoding and encoding require intervention focused on explicit awareness of phonemes in words, the association of phonemes with alphabetic symbols, and the ability to segment and blend phonemes in words and manipulate them in other ways. This aspect of intervention generally follows the normal developmental sequence—

- Beginning with activities that build awareness of rhyme and other syllable-level sound structures.
• Moving to activities that require comparison of phonemes in groups of words, such as identifying whether two words start or end with the same “sound.”

• Proceeding to activities that require more explicit levels of phonological awareness—for example, teaching children to move tokens in and out of boxes to represent the number of “sounds” in a particular word (e.g., Adams, Foorman, Lundberg, & Beeler, 1998; Blachman, 1989, 1997).

• Culminating in activities aimed directly at teaching children to segment words into phonemes and to blend phonemes into words for the purposes of word decoding and spelling of words with relatively “regular” grapho-phonemic patterns.

• Helping children at the same time to recognize that even “irregular” words have patterns and teaching them to associate syllabic and morphological structures with those patterns.

• Providing experiences in emergent writing as well as emergent reading.

In a balanced approach for such children, word-level decoding and encoding activities are complemented by activities designed to teach children to draw on sentence-level and discourse-level knowledge of the syntactic, semantic, and pragmatic systems of language (Goldsworthy, 1998). Where such knowledge exists but is not being brought to the interactive and parallel tasks of word decoding and sense making, students may need explicit instruction about strategies for applying their decoding/encoding skills in context. Such intervention is focused on effective strategies for predicting and checking in recursive cycles to ensure that perceptions and productions of orthographic (letter combination) forms match developing meanings. Strategic use of semantic, syntactic, and pragmatic knowledge is essential for monitoring whether the output of decoding/encoding processes makes sense and yields the intended messages.

Later Elementary and Secondary Intervention Programs

Intervention for older schoolchildren and adolescents also should be balanced in terms of meeting their needs to develop phonemic awareness and sound-symbol association skills that may have been previously missed, along with meeting their needs with regard to higher level language uses. Developmentally appropriate benchmarks for older students include skills for production and comprehension of spoken and written language found in middle schools and high school lectures and textbooks, figurative language forms that mediate peer group interactions (e.g., humor, sarcasm, slang) and the use of metacognitive strategies appropriate for interpreting the abstract meanings of literate language. Summaries of the developmental course of higher level syntactic structure in school-age children and adolescents are available (Nippold, 1998; Perera, 1984; Scott, 1988). Sufficient opportunities to practice also should be built into the intervention. That is, it is unlikely that students will learn to talk and write “like a book” unless they have sufficient opportunities to read books and to hear them read aloud.

Similarly, it is unlikely that students will develop the ability to formulate and comprehend complex syntax unless such linguistic forms are included in experiences that foster the need to convey complex meanings for authentic purposes. Therefore, in intervention, it makes little sense to consider syntax apart from the literate meanings being coded. For example, instructing a student about the use of subordinate adverbial clauses (i.e., those starting with such conjunctions as when, after, because, if) may be most effective in discussion, reading, and writing activities involving complex ideas about reasons, causes, and temporal and conditional relationships.

Syntactic structure is influenced by discourse genre, as well. In general, narrative discourse is the least complex syntactically, whereas persuasive discourse is the most complex (Scott, 1999). In balanced approaches, intervention goals target sentence-level syntax and meaning in conjunction with discourse. For example, if a student is working on writing better reports, the SLP might emphasize sentence-level forms used to convey causality and conditionality. Relative clauses can be developed in the context of more elaborate descriptive writing.

Written language offers opportunities for working on such complex forms in a relatively more permanent modality than does spoken language. Other examples for designing balanced intervention approaches for older students include the following targets at word, sentence, discourse, and metacognitive levels:

Word level: A literate lexicon. A literate lexicon includes learning the vocabulary of a school curriculum (math, social studies, science) as well as certain categories of words characteristic of literate uses of language. Derived words (i.e., those that include derivational affixes, e.g., excitement, decision, unfulfilled, pre-
clude) also are found in written language at the later grades with increased frequency (Moats & Smith, 1992; Windsor, 1994). Nippold (1998) identified several categories of polysemous words—and other later learned vocabulary.

- Multiple-meaning words (e.g., she looked beneath the chair vs. begging was beneath her, it is a cold day vs. his look was cold).
- Adverbs of likelihood and magnitude (e.g., possibly, especially).
- Metalinguistic and metacognitive verbs (e.g., assert, concede, forget, assume, conclude).

Sentence level: Complex syntactic structure and meaning. Language written and spoken by older students shows increasing complexity at phrasal, clausal, and sentence levels. In written language, information is “packed” into noun phrases with many modifiers before and after nouns. Verb phrases are expanded to include modal auxiliaries and aspect markers. Clauses are elaborated with optional adverbial elements, and sentences frequently contain two or more clauses in coordinate and subordinate relationships.

Discourse level: Cohesion and text structure. Academic language is frequently a monologue rather than a dialogue. To a greater extent than in a give-and-take conversation, sentences must be linked together via grammatical and lexical cohesion ties (e.g., pronominal reference, ellipsis, adverbial conjunctions, coordinating conjunction). Additionally, the entire text must have a recognizable overall content structure (also called macrostructure). Complete narratives in the European tradition (knowledge of cultural variation is important here), for example, have an overall content template which specifies that the story should involve:

- A setting and character introduction.
- An initiating event.
- A plan and attempt to solve the problem.
- An outcome to the attempt.
- An ending.

Informational discourse (also called expository discourse), conversely, may be organized in several different ways depending on whether the overall scheme is one of description, problem-solution, comparison-contrast, cause-effect, or enumerative content (Westby, 1999). When processing such texts, older students should be able to retrieve the overall gist. That is, a reader or listener should be able to—

- State the main point, even if implicit.
- Provide a summary of the material.
- Generate a title for the material.

Metacognitive strategies that support literate language. Intervention aimed at developing literate language should involve integrated, authentic school experiences that the student has previously identified as problematic (e.g., listening to a lecture and taking notes, writing a report, arguing a position on a controversial topic). In such contexts, higher level language skills are frequently taught along with strategic language behaviors. Examples include:

- Awareness of derived words taught as a word-identification strategy.
- Sensitivity to high- and low-frequency words taught as a writing-revision strategy.
- Main ideas taught as a writing-planning strategy.
- Narrative text structure taught as a writing-planning strategy.
- Complex sentence structure taught as strategies for generating and revising written texts.
- Text macrostructures taught to support listening and reading comprehension strategies.

Intervention for Students With Multiple or Severe Developmental Impairments

Historically, students with limited cognitive abilities have been considered poor candidates for learning to read and write. Many students with severe physical impairments but intact cognitive abilities also have had limited opportunities. School teams have tended to “water down the curriculum instead of providing alternative ways to participate in the standard curriculum” (Erickson & Koppenhaver, 1995, pp. 682–683). In fact, it is difficult to establish a prognosis for learning to read and write for students with severe communication impairments because so few have had emergent literacy experiences, instruction in reading decoding and comprehension, and access to writing systems they could manage physically (Koppenhaver et al.,
Assuming the role of a teacher, has often fueled this lack of participation. However, over the past decade SLPs have become conversant with curriculum planning for typical students and for modifying the curriculum for students with literacy learning problems (Lenz, 1998). Good instruction is—

### Outcome-oriented

The general education literacy curriculum is typically defined by the outcomes desired, not by the approaches or materials used. In fact, the literacy curriculum being used in schools today is most likely based on literacy standards developed at the state level. Standards developed by state departments of education are then used by school districts as a framework for curriculum development. In the subject area of language arts, many configurations exist, for example, through subdivision into strands, such as listening, speaking, reading, and writing. Sometimes listening and speaking are combined. Literature and language also may be separate strands. Typically, a content standard is a broad statement of what we expect students to know and to be able to do. A benchmark is a more specific statement of expected or anticipated performance at various developmental levels (Kendall & Marzano, 1994). The following is an example:

**Subject Area:** Language Arts  
**Strand:** Reading  
**Standard:** The student constructs meaning from a wide range of texts.  
**Benchmark:**  
PreK–2 Determines the main idea or essential message for text and identifies supporting information.

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**Basic Principles of Curriculum Planning**

To design curriculum-relevant language intervention activities and to assume the various roles in reading and writing described in this document, SLPs should keep in mind a number of basic principles related to curriculum planning for typical students and for modifying the curriculum for students with literacy learning problems (Lenz, 1998). Good instruction is—

### Outcome-oriented

The general education literacy curriculum is typically defined by the outcomes desired, not by the approaches or materials used. In fact, the literacy curriculum being used in schools today is most likely based on literacy standards developed at the state level. Standards developed by state departments of education are then used by school districts as a framework for curriculum development. In the subject area of language arts, many configurations exist, for example, through subdivision into strands, such as listening, speaking, reading, and writing. Sometimes listening and speaking are combined. Literature and language also may be separate strands. Typically, a content standard is a broad statement of what we expect students to know and to be able to do. A benchmark is a more specific statement of expected or anticipated performance at various developmental levels (Kendall & Marzano, 1994). The following is an example:

**Subject Area:** Language Arts  
**Strand:** Reading  
**Standard:** The student constructs meaning from a wide range of texts.  
**Benchmark:**  
PreK–2 Determines the main idea or essential message for text and identifies supporting information.

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**Resolutions to Provide Needs-Based, Curriculum-Relevant Literacy Intervention**

It is also critical to design intervention for school-age children to foster understanding and formulation of spoken and written language to meet the demands of the general education curriculum (Public Law 105-17; IDEA ’97). A comprehensive view of the curriculum includes skills for interacting socially with peers as well as for reading and writing academic texts and understanding teachers’ directions and lectures (e.g., Nelson, 1989, 1997, 1998; Sturm & Nelson, 1997).

Although the terms curriculum and instruction are used in various ways by educators, one way to define them is that curriculum refers to what you teach whereas instruction refers to how you teach. Although SLPs traditionally have been trained in the language base of curriculum, including reading and writing, they have not always become involved in teaching the curriculum, per se. Concern with being viewed as a classroom teacher, or being asked to assume the role of a teacher, has often fueled this lack of participation. However, over the past decade many SLPs have become conversant with curriculum for preschool and school-age youngsters so that they might provide more curriculum-relevant treatment and take a more productive role within the overall educational system.

With regard to instruction, SLPs do not typically think of themselves in this frame of reference because they provide therapeutic interventions and not “instruction” in the general education sense. Possible exceptions to this orientation are the roles filled by SLPs who work in classroom-based programs at the preschool and elementary levels or who teach secondary courses with a therapeutic focus. However, especially with the implementation of IDEA 97 (Public Law 105-17), understanding the instructional process in literacy is essential to any role SLPs may take in reading and writing in the schools. It also is important to recognize that professionals working with students outside of school settings may be providing primary intervention in literacy and must also attend to progress in the general curriculum if they are to have a positive impact on students’ success.
Grade 3–5  Reads text and determines the main idea or essential message, identifies relevant and supporting details and facts, and arranges events in chronological order.

Grade 6–8  Determines the main idea or essential message in a text and identifies relevant details and facts and patterns or organization.

Grade 9–12  Determines the main idea and identifies relevant detail, methods of development, and their effectiveness in a variety of types of written material. (Florida Department of Education, 1996)

Comprehensive. Literacy instruction needs to include the components that research indicates are essential for literacy achievement at various levels (e.g., at the emergent level: phonological awareness, print awareness, word recognition [decoding], comprehension, and authentic use). Important aspects cannot be omitted because an individual teacher may have an aversion to teaching certain elements or may particularly enjoy teaching another approach.

Balanced. With typical learners, a balanced instructional program includes a blend of all the components needed for literacy (e.g., reading decoding, fluency, and comprehension; spelling and writing composition). With students having literacy difficulties, it is essential that balance be maintained so that problem areas do not become the focus of the entire program.

Contextualized. Although students who are found to have difficulties in decoding and spelling should be taught sound-symbol associations and spelling rules in an intensive, systematic way, the overall context of authentic use of literacy skills in real reading and real writing tasks must be maintained in a complete program.

Developmentally appropriate. It is necessary to focus on the skills and experiences crucial at specific points in a sequence of development. For example, a focus on activities involving phonological awareness is appropriate at the beginning of emergent literacy with young children, but older students having difficulties with word recognition may still need explicit instruction in phonemic awareness and sound-symbol association.

Age-appropriate. For typical students, developmentally appropriate practices and age-appropriate practices coincide naturally. For students with literacy problems, practitioners must be sensitive to age preferences, especially in the selection and use of activities and materials. For example, some decoding activities considered fun by young children are insulting to adolescents, even though they may be functioning at similar developmental reading levels. It is the responsibility of the intervention team to design educational activities that are both developmentally and age appropriate.

Recursive. Literacy acquisition involves learning a process that occurs over many years. Specific components of literacy instruction are not taught once, then abandoned. Instruction addresses certain elements repeatedly, albeit with different nuances and levels of complexity. For example, although reading comprehension at the emergent literacy stage may begin with factual information, later in this stage children’s reading comprehension activities would include requirements to predict events. Most authors across the age span consider themselves to be in a continual state of development.

Direct. For many students, especially those with learning disabilities, literacy skills must be taught directly by teachers who provide face-to-face instruction and guidance. Merely exposing them to repeated literacy experiences will be insufficient for them to learn the skills they need.

Explicit. Students with literacy difficulties require instruction that is clear and specific. Teachers and SLPs must provide detailed, step-by-step instruction on the elements needed to learn to be literate.

Intense. Instruction must be frequent and engaging for those with reading and writing problems. Learners must actively participate in instructional sessions. Follow-up practice opportunities also are essential, including both guided-practice and independent-practice activities.

Scaffolded. Scaffolded instruction provides a bridge from what students know to what they need to learn. It is accomplished through interactive teaching in which questioning and modeling are used to help students focus on cues they previously missed.
Informative. Professionals working with students must keep them informed about their literacy learning experience: what they know, where their difficulties lie, how they are being taught, what progress they have made. This practice is particularly important for students with disabilities who may be lacking self-monitoring and self-evaluation strategies. Feedback regarding specific performance during instruction also is essential.

Corrective. In addition to providing informative feedback to students, teachers and SLPs must make them aware of the specific actions they should take to correct errors or improve performance.

Modifying the Curriculum for Children With Special Needs

SLPs’ understandings of language development, language and literacy disabilities, and strategies to facilitate performance contribute to their making curriculum modifications in collaboration with general and special educators. Program modifications designed to help students with special needs achieve goals and progress in the general curriculum are written into IEPs. SLPs play a crucial role in helping others to understand students’ competencies in communication and related abilities to access the curriculum using spoken and written language. For example, students who have language deficits may need more than the common strategy of having tests read to them. They also may need such accommodations as help in understanding abstract or complex questions or optional modes for responding to test questions. Further, depending on their language skills, students may need alternatives for completing assignments, responding in class, and doing reports. SLPs may help determine the level of scaffolding needed. SLPs also work with teachers to determine accommodations needed for information presentation, student responses, and participation in all aspects of the curriculum.

Responsibilities to Teach Self-Advocacy to Students With Language Disorders

For many students with language disorders, reading and writing are likely to present lifelong challenges. Students who learn to advocate for themselves are more likely to receive assistance for developing literacy skills, achieving academically, and achieving in life in the broader sense, despite their reading and writing problems. All professionals working with these students should work collaboratively in teaching self-advocacy strategies. Although advocacy activities need to be geared to appropriate developmental levels, self-advocacy instruction should be part of all intervention programs for students with special needs and should be intensified for adolescents. Strategies might include:

- Participating in educational planning, including the IEP process, to advocate for personal goals, required services, and appropriate curricula.
- Requesting assistance in the classroom when needed.
- Focusing on strengths during career exploration, while keeping options open.

Other Roles and Responsibilities With Literacy

Providing Assistance to General Education Teachers, Students, and Parents

It is helpful to distinguish therapeutic roles that are the responsibility of school-based SLPs from instructional roles that are the responsibilities of general education classroom teachers. For example, SLPs might provide direct instruction to individual students who need additional explicit and intensive instruction in phonological awareness and the alphabetic principle. Conducting “phonological awareness training,” however, is not recommended as a routine role for SLPs in all kindergarten classrooms. Instead, SLPs might share their expertise with teachers to enhance the teachers’ skills with phonological awareness training. Such an assistive role might be implemented through short-term demonstration and modeling of how phonological awareness can be taught. Such modeling and instruction might include emphasis on the way that sounds are produced, how sounds are sequenced, and the value of “stretching” words so that sounds can be distinguished.

SLPs also might work with other educators and parents to build redundancy and practice into the instruction. In this way, the team can use meaningful communication contexts to assist students to develop the automaticity needed for becoming fluent readers and writers. For example, working with students with special needs in the context of general education writing workshops can provide extended opportunities to work on both their spoken- and written-language skills (Graham & Harris, 1999; Harris & Graham, 1996b; Nelson, Bahr, & Van Meter, in press). SLPs working with children of all ages can work with parents to help them develop strategies for fostering their children’s written, as well as spoken, language acquisition.
Assuming Literacy Curricular Responsibilities on Behalf of All Students

It is appropriate that SLPs (particularly those in school settings) working on behalf of all students do the following:

- Promote awareness of literacy curriculum and instructional issues in work and community settings.
- Advocate for appropriate services for all students, use of research-based practices, and adequate resources.
- Volunteer to serve on school- or district-level committees working in the area of literacy (e.g., curriculum development, program design, textbook adoption, material selection).
- Design and implement professional development activities for colleagues on the language bases of reading and writing development, such as training on phonological awareness for pre-K, kindergarten, and first-grade teachers (Moats & Lyon, 1996).
- Learn the beliefs, standards, and curriculum frameworks for language arts used in the individual’s state, district, and school.
- Learn the instructional approach or approaches used at the school being served (e.g., basal reader approach, trade books, direct instruction).
- Work with other professionals and family members to design appropriate instruction and/or special services for students who may need intervention plans.
- Provide general assistance to teachers regarding reading and writing in the classroom.
- Advise teachers on effective approaches with specific students who are not on their caseload.
- Demonstrate for teachers specific techniques that may be helpful to students with reading and writing problems.
- Conduct research in collaboration with others to inform practice.
- Explain the role of the SLP in reading and writing to teachers, administrators, and families.

Extending the Knowledge Base for Students and Colleagues

Successful implementation of these guidelines requires the active participation of university programs to provide instruction in written-language acquisition and in assessment; and intervention for literate-language difficulties. University students may develop some of this knowledge and expertise through course work in general and special education. Effective integration of knowledge about spoken- and written-language relationships requires, however, that course work and practicum experiences in language development and disorders include an integrated focus on reading and writing as well as on listening and speaking.

SLPs in the field have responsibilities to help university program faculty provide effective instructional methods and examples for preparing professionals to work in school-based and other pediatric-practice settings. Ongoing professional development programs is also necessary to assist practitioners already working in the field to assure the necessary knowledge and skills to implement the literacy roles and responsibilities listed in these guidelines. Action research into better methods of service delivery can be designed and implemented in applied settings, and collaborative projects will shed new light on best practices for helping all children become literate. Basic research can continue to provide new insights about the nature of spoken- and written-language development that can inform future practice.

Summary and Conclusions

These guidelines make the point that SLPs have the necessary expertise and the responsibility to play important roles in ensuring that all children gain access to instruction in reading and writing as well as in other forms of communication. The roles and responsibilities described herein are based on the recognition that language problems are both a cause and a consequence of literacy problems. The roles and responsibilities vary with the characteristics and needs of the children and adolescents being served and with the work settings and experiences of the professionals involved. SLPs have appropriate roles related to all aspects of professional activity, including prevention, identification, assessment, intervention, and participation in the general literacy efforts of a community. Responsibilities include using practices that are research-based, balanced, culturally appropriate, developmentally appropriate, needs-based, curriculum-relevant, and designed to assist students in developing self-advocacy abilities. Prac-
tering professionals and university professors also bear responsibility for increasing their own knowledge about relationships among reading, writing, and general language development and disorders, as well as that of the new generation of practitioners. The critical contributions of literacy competence to academic and social success and lifetime opportunities make it not only appropriate but essential that SLPs assume these roles and responsibilities.

References


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achievement definitions. Journal of Educational Psychology, 86, 6–23.


Table 1. Appropriate Roles for Speech-Language Pathologists Related to Literacy

Planning Team Member

**Definition.** A planning team member works with other professionals and family members to design intervention, to modify general education instruction, and to provide special services for children in early childhood or school-age students with special needs.

**Parameters.** SLPs have expertise that can be used in the development of a literacy intervention plan, which in the case of schools may mean assistance in the development of an Individual Educational Program (IEP) for students with identified needs. Teams may also plan remedial reading or academic assistance programs. Other children may receive early intervention services or treatment in medical or private practice settings that require coordination with others who know the child well.

**Activities.** SLPs should be involved in the development of IEPs for students eligible for language services, but may be helpful in other cases as well. SLPs in other settings should seek opportunities to consult with individuals who can comment on children’s educational needs.

Direct Service Provider

**Definition.** A direct service provider works face-to-face with students to meet their needs.

**Parameters.** It is appropriate for SLPs to have a direct role in literacy intervention. Depending on student age and severity factors, work setting, delivery model structures, and availability of alternative services, the SLP may assume a more direct role in some situations than in others. This role is as important with older students as it is with younger children (Apel & Swank, 1999). For school-based professionals, state and local policy, including variations in how student eligibility is defined and specifications of teacher certification standards and cross-disciplinary functions, may also influence this role.

**Activities.** Activities include intervention focused on the language underpinnings that affect the acquisition of reading and writing skills. Also appropriate are direct, explicit teaching of reading and writing skills. Activities of direct instruction also may be designed to help students handle the written-language demands of the general education curriculum in content subject areas.

Collaborative Consultant (Indirect Service Provider)

**Definition.** A consultant serves as a resource to others who work directly with students to meet their needs.

**Parameters.** The SLP may work indirectly with other special service providers or general education teachers to facilitate literacy achievement. This role may be in addition to the provision of direct services.

**Activities.** The collaborative consultant role might involve helping teachers enhance the literacy curriculum and modify instruction for all students, or it might involve helping others conduct assessment and plan instructional strategies for specific students. It might involve the provision of instructional materials for teachers to use in teaching phonological awareness, or it might involve helping parents of young children develop better strategies for sharing book reading experiences with them (van Kleeck, Alexander, Vigil, & Templeton, 1996).

Model

**Definition.** A person who serves as a model demonstrates a particular approach or skill. The modeling can be designed to demonstrate skills for individuals with special needs or for those who work with them.

**Parameters.** SLPs might model scaffolding strategies for children, parents, or other professionals. SLPs working in school settings have opportunities to interact with teachers on a regular basis.

**Activities.** Activities include demonstration of how to implement specific techniques with individual students, or teaching mini-lessons on such topics as how to use one’s “public voice” and eye contact while making an oral presentation of a written report, or how to think about one’s audience while deciding which details to put in a story.

Leader and Professional Developer

**Definition.** A leader is an individual whose work and efforts influence the work and efforts of others. A professional developer is an individual who assumes responsibility for facilitating the professional growth of others.
Parameters. Leadership is needed in many work and community settings to promote awareness of literacy issues, as well as to design and implement action plans to enhance literacy achievement using research-based practices. Both SLPs in administrative roles and front-line practitioners can act as leaders in developing effective literacy practices. As professional developers, SLPs can assume responsibility for assisting others in expanding their repertoire of skills and proficiencies related to language development and literacy instruction.

Activities. Leadership activities might include helping a district develop strategic plans for increasing its students’ literacy levels. Professional development opportunities might be designed for different audiences, for example, helping kindergarten teachers provide direct instruction in phonological awareness for children in their classes or helping other SLPs extend their literacy-focused intervention strategies.

Advocate and Policy Developer

Definition. An advocate speaks out on behalf on an individual, group, or issue. A policy developer engages in decision-making activities that chart a particular course of action for an agency or group.

Parameters. SLPs can function as advocates in a variety of contexts and situations, speaking on behalf of children with literacy problems in general; on behalf of specific students as individuals, or as members of local, state, and national associations. A policy developer, who serves in an official capacity for an organization or agency (e.g., as a member of a school improvement team or language arts curriculum committee), is in a particularly good position to influence decisions about how things should be done.

Activities. Advocacy might involve efforts to secure such resources as appropriate services, research-based practices, or technological supports. It also might be aimed at helping others, including children and parents, develop their own advocacy skills. Involvement in curriculum development and standardized assessment is especially important as school districts work to implement state standards-based language arts curricula. At the policy-development level, this role might entail working through a state association to revise policies that are too restrictive.

Researcher

Definition. A researcher formulates questions that can inform practice and designs strategies for answering them.

Parameters. Research can be conducted both by academicians, whose primary responsibilities include research, and by practitioners, whose primary responsibilities may not include research, but who can make significant contributions to bridge research to practice gaps. Research also may be conducted by collaborative teams of academicians and practitioners.

Activities. Research may be relatively more or less structured. It may use quantitative or qualitative methodologies, and it may involve large numbers of experimental and control group members or single participants. “Action research” refers to research designed by practitioners to pose and answer questions aimed at informing their own practices in the context of those practices.