North Carolina Guidelines for Speech-Language Pathology Services in Schools

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Foreword

The North Carolina Department of Public Instruction offers this document to individuals concerned with the identification and management of communicatively impaired children 3 to 21 years of age. This group may include parents, administrators, Individualized Education Program (IEP) Team members and speech-language pathologists. The guidelines herein are intended as best practice in the planning and implementation of programs for children and youth with educationally significant communication disorders in school settings. These guidelines are also intended to provide consistency in services in school systems across the state in alignment with federal and state educational evidence-based practices.

This document is necessarily different from the previous guidelines, reflecting a change in focus brought about by federal and state law and regulations governing programs and services for children and youth with disabilities. This document will support speech-language pathologists as they strive to align curriculum and assessment while using evidence-based instruction that is student focused. It is a guide through a problem solving process, which begins with general education interventions and continues through initial evaluation, eligibility determination, special education services, reevaluation and termination of services.

Federal and state regulations accentuate the role of a team in decision making in regard to eligibility, placement, programming and dismissal of children who are entered into the special education process. Parents, teachers, speech-language pathologists as well as professionals from other disciplines are encouraged to play a role in all aspects of decision-making and problem solving related to the eligibility, placement, intervention and dismissal of children and youth with speech-language impairments.

Federal and state regulations also focus attention on the impact a disability has on a student's ability to access the general education program. This shift challenges the speech-language pathologist to link assessment, eligibility determination, and IEP design and implementation to the North Carolina Standard Course of Study. In the past, placement decisions were often based solely on outcomes from standardized assessment measures taken in a "snap shot" in time.

Many references are made to the speech-language pathologists' emerging role in the area of literacy. There is now recognition that these professionals have unique knowledge of the language skills that underpin literacy. Especially for children with language impairments, speech language pathologists are uniquely qualified to participate on literacy teams to improve outcomes for these language/literacy-impaired students.

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(12) Speech-Language Impaired. A pupil who has a speech-language impairment has a disorder in articulation, language, voice, and/or fluency. A speech-language impairment may range in severity from mild to severe. It may be developmental or acquired, and pupils may demonstrate one or any combination of the four parameters listed above. A speech-language impairment may result in a primary disability or it may be secondary to other disabilities.
A communication difference/dialect is a variation of a symbol system used by a group of individuals which reflects and is determined by shared regional, social or cultural/ethnic factors and should not be considered a disorder of speech or language. The components of speech-language impairment include:

(a) articulation. An articulation disorder is an abnormal, nondevelopmental production of phonemes (speech sounds). Types of misarticulations include omissions, substitutions, and distortions;

(b) language. A language disorder is the impairment of comprehension and/or production of an oral communication system. The disorder may involve the form of language (phonologic, morphologic, and syntactic systems), the content of language (semantic system), the function of language (pragmatic system), and/or any combination of the above.

(i) form of language
Phonology is the sound system of a language and the linguistic rules that govern it; Morphology is the rule system that governs the structure of words and the elements of meaning used in their construction; Syntax is the linguistic rule governing the order and combination of words to form sentences, and the relationships among the elements within a sentence;

(ii) content of language
Semantics refers to the content or meaning of words and utterances;

(iii) function of language
Pragmatics refers to the social use of language and its appropriateness in a given situation;

(c) voice. A voice disorder is an abnormal production of pitch (e.g., range, inflection, appropriateness), intensity (loudness), resonation (e.g., excessive nasality), and quality (e.g., breathiness, hoarseness, and harshness);

(d) fluency. A fluency disorder is a disruption in the normal, rhythmic flow of speech that interferes with communication. The disorder may include, but not be limited to, frequency of dysfluencies, duration of dysfluencies, struggle and avoidance characteristics, and types of dysfluencies (repetition--phrases, whole words, syllables, and phonemes; prolongations; and blocks).

(13) "Speech-language pathology" includes:
   (a) identification of children with speech-language disorders;
   (b) diagnosis and appraisal of specific speech-language disorders;
   (c) referral for medical or other professional attention necessary for the habilitation of speech-language disorders;
   (d) provision of speech-language services for the habilitation or prevention of communicative disorders; and
   (e) counseling and guidance of parents, children, and teachers regarding speech-language disorders.

(14) Speech-Language Screening. Speech-language screening quickly and reliably provides information in the areas of articulation, expressive and receptive language, voice and fluency for determining which students have communication within normal limits and which ones should be referred for further evaluation.

(15) Speech-Language Evaluation. A speech-language evaluation includes the following aspects of speech-language: articulation, fluency, voice, and language (form, content, and function). A speech-language evaluation is conducted by a speech-language pathologist licensed by the State Department of Public Instruction and/or licensed by the State of North Carolina.

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(9) Speech-Language Impaired. Children may be identified as needing speech-language evaluations through mass screening efforts and/or referral. Children determined through screening or referral to need evaluations shall be assessed in the areas of articulation, language (form, content and function), voice and fluency. It is on the basis of such an evaluation that the determination as to the type and intensity of services shall be made.
   (a) Articulation/Phonology. For a student to be considered for articulation/phonology intervention, the student's speech should be determined to have a negative impact on academic, social, and/or vocational functioning, and one or both of the following characteristics must exist:

      (i) two or more phonemic errors not expected at the student's current age or developmental level are observed during direct testing and/or conversational speech;
      (ii) two or more phonological processes not expected at the student's current age or developmental level are observed during direct testing and/or in conversational speech. For a preschool child to be considered for articulation/phonology therapy, the child's speech should be determined to have a negative impact on social-communicative interactions and one or both of the following characteristics must exist:
         a. two or more phonemic errors not expected at the child's current age or developmental level are observed during direct testing and/or conversational speech;

b. two or more phonological processes not expected at the child's current age or developmental level are observed during direct testing and/or conversational speech.

(b) Language. A battery of two diagnostic measures is recommended with at least one assessing comprehension and one assessing production of language. Assessment instruments chosen may include normed tests, criterion referenced tests, and/or a language sample. Scores should be computed in standard scores, language quotients percentiles, and/or stanine scores when possible. For a student to be considered for intervention, the student's language should be determined to have a negative impact on academic, social, and/or vocational functioning, and one or both of the following characteristics must exist:

(i) norm reference language tests which yield two subtest or total test scores with the following characteristics: 1.5 or more standard deviation below the mean, a language quotient/standard score of 78 (mean of 100), a stanine of two and/or a percentile of eight;

(ii) non-standardized/informal assessment indicates that the student has difficulty understanding and/or expressing ideas and/or concepts to such a degree that it interferes with the student's social/educational progress. For a preschool child to be considered for language intervention, the child's language should be determined to have a negative impact on social-communicative interactions and one or both of the following characteristics must exist:

a. norm reference language tests yield two subtest or total test scores with the following characteristics: 1.5 or more standard deviations below the mean, and language quotient/standard score of 78 (mean of 100), a stanine of two and/or a percentile of eight;

b. non-standardized/informal assessment indicates that the child has difficulty understanding and/or expressing ideas and/or concepts to such a degree that it interferes with the child's social-educational progress.

Many students, including those with developmental disabilities and, in particular, those classified as mentally disabled, exhibit limitations with expressive and/or receptive communication skills. Not all such students are considered to have a speech-language impairment and in need of therapeutic intervention from the speech-language pathologist. The speech-language pathologist and other members of the IEP team should consider the efficacy of therapeutic intervention for each student and, in determining such, should consider whether or not enrolling a student for speech-language services will significantly change his/her ability to communicate.

(c) Voice. For a student to be considered for placement in a voice therapy program, he/she must demonstrate consistent deviations in vocal production that are inappropriate for chronological/mental

age, sex, and ability. Further, the voice disorder should be determined to have a negative impact on academic, social, and/or vocational functioning.

(d) Fluency. For a student to be considered for placement in a fluency therapy program, he/she must demonstrate nonfluent speech behavior characterized by repetitions/prolongations as noted on a regular basis. Further, the fluency disorder should be determined to have a negative impact on academic, social, and/or vocational functioning.

(14) Speech-Language Impaired

(a) required screening and evaluation before placement:
  (i) hearing screening;
  (ii) speech-language screening;
  (iii) educational evaluation;
  (iv) speech-language evaluation administered to assess performance in those areas in which the student failed to demonstrate appropriate performance on screening.

(b) recommended screening and evaluation before placement:
  (i) health screening;
  (ii) psychological evaluation;
  (iii) vision screening.

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(3) Speech-language pathologists shall be licensed at the master's degree level. Speech-language pathologists who were licensed by the Department of Public Instruction prior to 1984 must meet the highest standard, which is a master's in speech-language pathology, by the year 2005. When a local education agency contracts for speech-language services, the contractor must hold a license from the North Carolina Board of Examiners for Speech and Language Pathologists and Audiologists.

Enhanced Definitions for Guidelines

"Speech-Language Impairment" "Speech-Language Impairment" means a communication disorder, such as stuttering, impaired articulation/phonology, a language impairment, or voice impairment that adversely affects a child's educational performance.

The following terminology clarifies the terms used in the above definition

(1) Language Impairment – A significant deficiency which is not consistent with the student's chronological age in one or more of the following areas:
   (a) a deficiency in receptive language skills to gain information;
   (b) a deficiency in expressive language skills to communicate information;
   (c) a deficiency in processing (audiotory perception) skills to organize information; and
   (d) a deficiency in the social use of language (pragmatics) and the rules that govern that usage.

(2) Articulation Impairment – A significant deficiency in ability to produce sounds in conversational speech which is not consistent with chronological age.

(3) Phonological Process Disorder - A simplification of the sound system that adversely affects intelligibility.

(4) Fluency Impairment – Abnormal interruption in the flow of speech by repetitions or prolongations of a sound, syllable, or by avoidance and struggle behaviors.

(5) Voice Impairment – A significant deficiency in pitch, intensity, or quality resulting from pathological conditions or inappropriate use of the vocal mechanism.

Guidelines in Speech-Language Pathology

Definition/Eligibility Standards for Speech-Language Impairment

1. **Definition** "Speech-Language Impairment" means a communication disorder, such as stuttering, impaired articulation/phonology, a language impairment, or voice impairment that adversely affects a child's educational performance.

2. **Eligibility Standards**

a. Speech-Language Impairment shall be determined through the demonstration of impairments in the areas of language, articulation/phonology, voice, and fluency.

(1) Language Impairment – A significant deficiency which is not consistent with the student's chronological age in one or more of the following areas:

(a) a deficiency in receptive language skills to gain information;

(b) a deficiency in expressive language skills to communicate information;

(c) a deficiency in processing (auditory perception) skills to organize information.

(2) Articulation Impairment – A significant deficiency in ability to produce sounds in conversational speech which is not consistent with chronological age.

(3) Voice Impairment – A significant deficiency in pitch, intensity, or quality resulting from pathological conditions or inappropriate use of the vocal mechanism.

(4) Fluency Impairment – Abnormal interruption in the flow of speech by repetitions or prolongations of a sound, syllable, or by avoidance and struggle behaviors.

b. The characteristics as defined above are present and cause an adverse effect on educational performance in the general education classroom or learning environment.

c. Speech-language deficiencies identified cannot be attributed to characteristics of second language acquisition and/or dialectal differences.

Evaluation Practices

Purpose for Evaluation

The purpose of the speech-language evaluation is to describe the student's communication behavior, including the nature and scope of any speech-language impairment and any ADVERSE EFFECT ON EDUCATIONAL PERFORMANCE to determine eligibility for speech-language as special education or related services. The following circumstances that require evaluation (formal or informal) of a student:

1. The student is suspected of having a speech and/or language impairment.
2. Prior to the initial provision of speech-language services as special education or as a related service;
3. At least every three years, or if conditions warrant a reevaluation, or if the teacher or parents request a reevaluation; or
4. Before determining that a child no longer has a disability, except when termination of eligibility is due to graduation with a regular high school diploma or the student exceeding age eligibility for a free appropriate public education.

* Reevaluations do not always require formal testing.

The rules that apply to the evaluation and eligibility of students in public education may be found under IDEA: Evaluation Procedures

Determining the Presence or Absence of a Speech or Language Impairment

The following statements represent the professional perspective for planning and providing assessment services and are consistent for each of the four content areas:

1. Language
2. Speech Sound Production (Articulation/Phonological Skills)
3. Voice
4. Fluency.

1. Evaluation Procedures

a. Language Impairment - a significant deficiency in language shall be determined by:

(1) an analysis of receptive, expressive, and/or composite test scores that fall at least 1.5 standard deviations below the mean established by the testing instrument.

(2) a minimum of two (2) measures shall be used, including criterion- and/or norm-referenced instruments, functional communication analyses and language samples. At least one standardized comprehensive measure of language ability shall be included in the evaluation process.

Evaluation of language abilities shall include the following:

(a) hearing screening;

(b) reception: vocabulary, syntax, morphology;

(c) expression: mean length of utterance, syntax, semantics, pragmatics, morphology;

(d) auditory perception: selective attention, discrimination, memory, sequencing, association and integration; and

(e) assessment and documentation of how a language impairment adversely affects educational performance in the classroom or learning environment.

b. Articulation Impairment – a significant deficiency in articulation shall be determined by either:

(1) articulation error(s) persisting one year beyond the highest age when 85% of the students have acquired the sounds based upon current developmental norms; or

(2) evidence that the child's scores are at a moderate, severe or profound rating on a measure of phonological processes; and

(3) misarticulations which interfere with communication and attract adverse attention.

Evaluation of articulation abilities shall include the following:

(a) hearing screening;

(b) appropriate formal/informal instrument(s);

(c) stimulability probes;

(d) oral peripheral mechanism examination;

(e) analysis of phoneme production in conversational speech; and

(f) documentation and assessment of how an articulation impairment adversely affects educational performance in the general education classroom or learning environment.

c. Voice Impairment – evaluation of vocal characteristics shall include the following:

(1) hearing screening;

(2) examination by an otolaryngologist;

(3) oral peripheral mechanism examination; and

(4) documentation and assessment of how a voice impairment adversely affects educational performance in the general education classroom or learning environment

Fluency Impairment – evaluation of fluency shall include the following:

(1) hearing screening;

(2) information obtained from parents, students, and teacher(s) regarding non-fluent behaviors/attitudes across communication situations;

(3) oral peripheral mechanism examination; and

(4) documentation and assessment of how a fluency impairment adversely affects educational performance in the general education classroom or learning environment.

1. Evaluation Participants
   a. Information should be gathered from the following persons in the evaluation of speech-language impairment:
      (1) the parent(s) or guardian of the child;
      (2) the child's general education teacher;
      (3) a licensed speech/language pathologist;
      (4) a licensed otolaryngologist (for voice impairments only); and
      (5) other professional personnel as needed.

Interpreting and Reporting Results

The following recommendations address this standard and the need to provide important technical information to other professionals:

1. Compare the student's formal test results with those of the normative population in an appropriate and consistent format. Standard scores, which are typically based on a mean of 100 and a standard deviation of 15, are recommended for this purpose. If norms are based on something other than a nationally represented normative sample, the test user should consider whether it is appropriate to report quantitative test results and, if so, to qualify findings as needed.

2. To determine eligibility as a student with a language impairment, receptive, expressive and/or composite test scores shall fall at least 1.5 standard deviations below the mean (approximately the 7th percentile or a score of 78 or below) of the language assessment instrument(s) administered. This cutoff shall be applied to composite scores of receptive and/or expressive measures or to overall test scores rather than to individual subtest scores. When assessment results indicate a significant weakness in any skill area (i.e., receptive, expressive, auditory perception, pragmatic language), and the obtained score is not 1.5 standard deviations below the test mean, further assessment in the deficit area is required.

3. Eligibility shall ***not*** be determined solely by comparing a composite or overall score to this cutoff level.
   - Evidence that the deviation has an adverse effect on educational performance must be gathered and considered along with background information before a determination of eligibility can be made.
   - Test scores shall be presented in a manner that conveys that some degree of error measurement is inherent in the score, thereby discouraging the inappropriate interpretation that test scores are fixed and are perfectly accurate representations of a student's functioning. (Refer to the technical manual of the test to obtain standard error of measure also referred to as confidence intervals.)

4. Eligibility for a language impairment may ***not*** be determined on the basis of a predetermined discrepancy between language and cognitive measures. Appropriate cognitive assessment may be used, however, to supplement or support the findings of the speech-language evaluation. Collaboration between the school psychologist and the SLP in planning and implementing appropriate communication and cognitive assessments and interpreting their results will facilitate eligibility determination.

   "There may be a role for intelligence measurement in intervention planning for children with developmental language impairments and for children with specific language impairments. Some measure of cognitive performance is needed to examine differences and similarities in etiology and performance for children with specific language impairments and for children with developmental language impairments. More research is needed in these areas. There is, however, no support for the continuation of cognitive referencing in the forms of IQ cutoffs or IQ-language discrepancy formulas as a clinical method of caseload selection or prioritization. IQ measures may reveal something about *how* children should be served, but they do not appear to be relevant in deciding *who* should be served."
   Cole, K.N. & Fey, M.E. (). Cognitive Referencing in Language Assessment. *Assessment of Communication and Language, Vol. 6*. Paul H. Brookes Publishing Co.: Baltimore, MD.

   Another good reference is Casby, M. (1992). The cognitive hypothesis and its influence on speech-language services in schools. *Language, Speech, and Hearing Services in Schools, 23,* 198-202.

5. Age or grade equivalent scores shall not be used in making eligibility decisions. They do not account for normal variation around the test mean and the scale is not an equal interval scale. Therefore, the significance of delay at different ages is not the same. Furthermore, the different ages of students within the same grade make comparisons between students within and between grades difficult. In addition, grade equivalents do not relate to the curriculum content at that level. While seemingly easy to understand, equivalent scores are highly subject to misinterpretation and should not be used to determine whether a child has a significant deficit.

6. Modifications of standardized test procedures invalidate the use of test norms, but may provide qualitative information about the student's language abilities. If test administration appears to be invalid for any reason, test scores should not be subjected to usual interpretations and the reasons for invalidation should be clearly stated in oral and written presentations of test results as explicitly addressed in federal regulations.

7. Test results are to be reported and interpreted using language that can be easily understood by teachers and parents. Consequently, technical terms such as standard deviation, percentiles and confidence intervals, are to be supplemented by understandable interpretations such as low average, below average, average, etc. Percentile scores should be reported in a manner that conveys that results are estimates of functioning (e.g., approximately 30th percentile or a range of the 10^{th} to the 20^{th} percentiles). They should not be used as the sole basis for eligibility decisions.

Guidelines for Reevaluation

Federal and state regulations specify that reevaluation shall occur at least every three years or more frequently if conditions warrant or if the student's parents or teachers request it..

Purpose of Reevaluation Review

1. to focus on the student's progress in and/or access to the general education curriculum,
2. to focus on the student's progress in the special education program,
3. to address the student's IEP in meeting the unique needs of the student,
4. to investigate the need for further evaluation when the student is not progressing commensurate with his or her IEP goals and objectives, and
5. to determine continued eligibility.

A Formal, Comprehensive Reevaluation Should Be Considered

1. when the validity and/or reliability of the initial or previous evaluation are in question,
2. when standardized test results are questioned,
3. when previous evaluation results indicate external variables affecting the reliability of the previous assessment data, for example -- the child was easily distracted, situational crises in the home or school environment, or frequent change of schools,
4. when significant discrepant results were obtained by the student on two previous evaluations with no other explanation of this discrepancy,
5. when the results of the "Reevaluation Summary Report" indicate discrepancies or pose questions regarding the student's progress in his/her special education program and the IEP team determines there is a need to obtain more information through formal assessment,
6. when a comprehensive reevaluation is requested by the student's parent or other members of the student's IEP team, and/or
7. when the student has made progress and consequently, may no longer meet the eligibility standards for a speech-language impairment.

Components of a Reevaluation Review Summary

Background Information

a. Review of medical and sensory information
b. Educational Review
    - Disability information
    - Special education services provided currently and in the past three years
    - Review of other aspects of the student's progress that may be impacting the success of the educational program, including attendance, number of schools attended, school retention, behavior and discipline review

2. Review of Previous Assessment Information
    a. Previous evaluation information
    b. IEP team determination of the validity and reliability of previous evaluations
3. Current Classroom-Related Assessment
    a. Input from the parent, General Education, Special Education and/or Related Services Teacher
    b. Review of statewide and/or district-wide assessments
4. The IEP *Reevaluation Summary Report* considers whether
    a. There are no further data needed to determine eligibility for services
    b. The parent has been informed of the reasons for no further assessment
    c. The parent understands that further assessment can be made if the parent wishes to request additional assessment
    d. The parent has received a written copy of the Reevaluation Summary Report
    e. The parent has been informed of and received a copy of the *Handbook on Parents' Rights* (NCDPI publication).
    f. The date of the IEP team meeting and signatures of the parent and other IEP team members have been documented.

Eligibility Determination

(a) Upon completing the administration of tests and other evaluations—
  (1) A group of qualified professionals (IEP team) and the parent of the child must determine whether the child is a child with a disability; and
  (2) The public agency must provide a copy of the evaluation report and the documentation of determination of eligibility to the parent.

(b) A child may not be determined to be eligible under this part if—
  (1) The determinant factor for that eligibility determination is
    (i) Lack of instruction in reading or math; or
    (ii) Limited English proficiency; and
  (2) The child does not otherwise meet the eligibility standards.

(c) (1) A public agency must conduct a reevaluation meeting to evaluate a child with a disability before determining that the child is no longer eligible for services. This meeting will determine whether or not formal testing is needed.
  (2) The evaluation described in (c)(1) is not required before termination of student's
  (3) The evaluation described in paragraph (c)(1) of this section is not required before eligibility under due to graduation with a regular diploma, or exceeding the age eligibility for FAPE under State law.

Determination of Need for Special Education

Federal and state regulations do not require determination of a significant discrepancy between intellectual ability and achievement in order for a child to be identified with a speech or language impairment. In fact, the following statements were included in a response by the Office of Special Education programs to an inquiry:

> *"...any guideline or other policy which, as written or implemented, acts as a categorical denial of related services to all students whose language or motoric skills are as delayed as their general developmental level, would be inconsistent with the requirements of the EHA-B. Such a categorical limitation on services would conflict with the EHA-B requirement that the services to be included in each student's IEP be determined on an individual basis" (Rainforth, 17 EHLR 222).*

Guideline 1 A speech or language impairment is more than the numerical values derived from norm-referenced tests. Other assessment instruments and self-constructed observation tools for the classroom may be the most appropriate assessment choices.

Guideline 2 Cognitive scores are only one component for predicting the benefit of speech-language services or denying communication services.

Guideline 3 Assessments are to be administered in the student's native language or other mode of communication, unless it is clearly not feasible to do so.

Guideline 4 Assessments used to assess a student with limited English proficiency should measure the extent to which the student has a disability in his/her native language and needs special education, rather than measuring the student's English language skills.

Guideline 5 The assessment process must be sensitive to any cultural differences in order to avoid potentially biased results. For students who are difficult to assess, standardized instruments may be inappropriate and could yield invalid results. Caution should be used in these cases. Documentation should be provided when it is determined that such an administration is or is not recommended.

Guideline 6 Evaluation teams should assure they are gathering relevant, functional and developmental information about the student, including information provided by the parent.

Guideline 7 The assessment process should consider curricular expectations and the multiple learning environments in which the student participates (i.e., classroom, community-based). Parents are to be involved throughout the assessment process to help determine how to assess the student, what focus the assessment might take and to provide naturalistic observations of the student's communication strengths and weaknesses.

Guideline 8 Assessment must consider the student's present levels of performance as they impact the student's success in the general curriculum and, for preschool students, participation in appropriate activities.

Guideline 9 Any speech-language assessment process must provide information in the areas of language, speech sound, voice and fluency regardless of the suspected disorder.

Guideline 10 The determination of eligibility requires data to be drawn from a variety of tools which may include review of records, criterion-referenced tests, informal assessments, formal (norm-referenced) tests, observations, checklists and interviews.

Guideline 11 The goal of assessment is to provide information to the IEP team to determine the presence of a disability, the need for special education services and the content of the IEP, when appropriate.

Determining eligibility for Special Education services is a two step process

1. *Does the student meet the standards for a speech-language impairment according to the "North Carolina Eligibility Standards"?*

   The determination of the presence or absence of a speech-language impairment is to be made by an SLP based on the *North Carolina Eligibility Standards*. In doing so, the SLP is documenting the presence of the disability, not determining eligibility for special education. It is the responsibility of the IEP team to determine both eligibility and appropriate services. Speech-language impairment can be identified by conducting a formal, comprehensive evaluation or by reviewing a *Speech and Language Evaluation Report*

or a DEC 3 from a licensed SLP. If there is sufficient information available in that report to determine if the child has a speech-language impairment and that information is current, a determination may be made without further evaluation. Generally, the time period to be considered current is within a year. Caution is suggested in determining whether or not the perceived communication difficulties cause an adverse impact on the student's performance in the classroom or learning environment, based exclusively on information in a *Speech/Language Evaluation Report or a DEC 3*. Best practice recommends consultation with classroom teachers and parents to determine adverse education effects.

2. *Can the student's needs be met in the regular program without special education or is special education required in order to meet the student's needs?*

   The second aspect of eligibility is determined by the IEP team, which decides if the student's needs can (or cannot) be met in the regular program without special education. It is possible for a child to have a disability and not be eligible for special education if his/her needs can be met in the general education program by the use of supports and services.

The disability category is listed on the *Eligibility Report* by the SLP (and psychologist if other disabilities are present), and the IEP team documents whether special education services are required. Speech-language disabilities are to be listed on the *Eligibility Report* as Speech/Language Impaired.

Factors to consider in determining eligibility:

- How and to what extent did language play a role in the difficulties the student experienced on measures of cognition?
- What cognitive skills could have played a role in the difficulties the student experienced on measures of communication?
- Did the cognitive testing provide information about a variety of aspects of the student's intelligence (e.g., linguistic, social)? Does the student demonstrate communication deficiencies that severely affect his/her performance in these other intellectual domains? What are these communication deficits and what are their effects?
- Were there any significant differences between the student's standardized test performance and functional communication assessment?
- What is the relationship between the child's intelligence and educational achievement? What role might language play in any differences?
- Does the student demonstrate impairments across settings and situations? Do the student's communication difficulties affect that student across multiple settings and contexts?
- What communication skills does the student lack that are necessary for him/her to function in his/her current environment(s)?
- What aspect(s) of improved communication skills would allow the student to do what s/he is not doing successfully in his/her current program/environment?
- Does the student need specially designed instruction or are there other educational supports available to address the concerns that prompted the special education referral?
- If the student has another disability (e.g., mental retardation), how are the communication concerns addressed in the student's special education program? Does

the student need speech and language services as a related service in order to benefit from his/her special education program?

Dismissal Considerations

The following guidelines should be followed whenever considering dismissal of a student from special education services for a speech-language impairment.

Guideline 1 The criteria for exit from services for speech and language impairments should be discussed with IEP team members at the beginning of intervention.

Guideline 2 The decision to dismiss is based upon IEP team input (i.e., parent, teacher, etc.) initiated by the SLP or any other team member.

Guideline 3 If progress is not observed over time, changes must be made in the interventions/accommodations. If continued lack of progress is shown, specific goals and intervention approaches must be re-examined. If additional progress is not observed, dismissal may be warranted.

Guideline 4 If gains are general and cannot be attributed to direct intervention, dismissal should be considered.

Guideline 5 If it can be determined that new skills would not greatly improve education-based speech and language skills of students with severely impaired communication or cognitive systems, and no specific special education goals remain, dismissal should be considered.

Guideline 6 The student's current academic level, behavioral characteristics and impact on educational performance should be considered when determining dismissal.

Gantwerk has suggested several 'generic' exit criteria that may serve as a framework when developing the specific dismissal criteria for a school system.

1. The behavior of concern has been eliminated. Simply put, this is "a cure" – the pupil no longer evidences the original problem.

The student is performing at a predetermined level or is within normal range. Here, the student has reached the level we have determined in the IEP. For example, a student who has mastered the target sounds but still evidences some errors that are normal for his or her age may be dismissed. Stuttering may be reduced to some predetermined level rather than waiting for zero percent.

The behavior has not changed over a predetermined amount of time, and there is documentation to show that the variables of frequency, intensity, type of service, intervention strategy, and service providers (parent, teacher, clinician) have been manipulated. This is the most difficult yet essential criterion. It says that under certain circumstances lack of progress can be a reason for dismissal. First, you must demonstrate that you have provided a good quality program that can reasonably expect success. In addition, efforts have been made to alter the program in order to better serve the student. In a sense, you are saying that this form of intervention is not appropriate for this student.

"All of these criteria emphasize the necessity of having data…To run accountable programs, we must require consistent, data-based dismissal criteria".

Diane L. Eger, "Accountability in Action: Entry, Exit, Measurement."
Seminars in Speech and Language, Vol. 9, #4

Gantwerk, B. (1985b). Issues to address in criteria development. In Caseload issue in schools—How to make better decisions. Rockville, MD: ASHS 43-45.

DISMISSAL FACTORS

	RATIONALE
Current Level	___Goals and objectives have been met. ___Maximum improvement and/or compensatory skills have been achieved. ___Communication skills are commensurate with developmental expectations. ___Successful use of augmentative or assistive communication device.
Behavioral Characteristics	___Limited carryover due to lack of physical, mental or emotional ability to self-monitor or generalize to other environments. ___Other disabilities or interfering behaviors inhibit progress; please specify _____. ___Conflict arises in goals set by public and private SLTs/teams. ___Limited potential for change.
Educational Impact	___Communication skills no longer adversely affect the student's education performance. ___Communication skills no longer cause frustration or other social, personal, emotional difficulties.

When considering dismissal, remember a reevaluation is necessary if the student will no longer be receiving special education services in speech or language. The reevaluation review process should be followed prior to consideration of a comprehensive assessment. The IEP team may determine sufficient information is documented and a comprehensive reevaluation is not required. Parents must be part of the decision process and must give consent when a formal, comprehensive assessment is requested.

LANGUAGE IMPAIRMENT

LANGUAGE ASSESSMENT CONSIDERATIONS

The school environment places heavy demands on students to comprehend, interpret and use all aspects of verbal and nonverbal communication. Students must be able to communicate with others who have different communication skills, styles and backgrounds and for a variety of purposes in different settings. They must be competent in listening, speaking, reading and writing to learn the curriculum and interact with others. Consequently, the speech-language pathologist must conduct a comprehensive assessment that includes an appropriate balance of formal and informal procedures. The comprehensive assessment uses procedures that identify areas of strength and weakness and examine how the student functions communicatively in the environments in which s/he participates.

Both formal (standardized) and informal (descriptive) assessment tools are to be used to evaluate language.

The following measures are to be used:

1. a criterion and/or norm-referenced evaluation,
2. a functional communication analysis,
3. a language/communication sample**.**

At least one standardized, comprehensive measure of language ability is to be included in the evaluation process.

- A ***standardized test*** is an evaluation tool that is administered in a prescribed way for a specific population. Criterion-referenced and norm-referenced tests are examples of standardized tests.
- A ***comprehensive measure*** is defined as a measure that yields a receptive, expressive and total language score.
    - A norm-referenced test that yields a receptive language quotient, an expressive language quotient and a total language quotient is preferred whenever possible. Receptive and expressive vocabulary tests alone do not meet this requirement.
    - Norm-referenced tests selected for administration should be the most recently revised versions of such tests.
    - Norm-referenced tests measure decontextualized communication skills using formalized procedures. They are designed to compare a particular student's performance against the performance of a group of students with the same age and other characteristics identified by the test author(s) in selecting the normative population. They yield standard scores that are usually based on a mean of 100 and a standard deviation of 15. They are not designed to describe particular characteristics of children as they engage in the process of communication.

CONDUCTING A LANGUAGE ASSESSMENT

I. Conduct hearing screening.

II. Obtain relevant information from the parents when possible: concerns about communication skills, developmental history, etc.

III. Gather information from the student's teacher. For preschoolers, obtain this information from child care providers or other adults who see the child outside of the family structure. Obtain information from teachers related to progress in the general curriculum, communication skills, behavior and social interactions. General curriculum for preschoolers is developmentally appropriate activities.

IV. Review school records, e.g. grades, test scores, special education files, documentation of prereferral strategies/interventions and discipline and attendance records.

V. Select and administer at least one comprehensive norm-referenced test that is appropriate for the student's age and yields receptive, expressive and total language quotients whenever possible.

VI. **Complete the following:**

A. Obtain information about the student's functional communication skills.

B. Use standardized measures and/or a language sample to assess:

1. morphology: the understanding and usage of word endings, inflections, prefixes, suffixes and compound words.
2. syntax: the set of rules, which govern how words, phrases, and clauses are combined to form sentences, mean length of utterance.
3. language content or semantics: the manner in which words and word relationships represent one's knowledge and ideas about the world of objects and events, total number of words.

C. Assess pragmatic language skills: understanding and using language in communicative interactions.

D. Consider play skills when evaluating preschool children since the developmental level of play reflects underlying cognitive knowledge, and play provides a social context for interaction and language learning

E. Interview the student, when appropriate, to determine his/her perception of communication abilities and difficulties especially as related to classroom and other educational settings. Probe the student's awareness and use of strategies that s/he has attempted and probe for self-evaluation of their effectiveness.

VII. Document how the student's language impairment adversely affects educational performance in the classroom or the learning environment. For preschoolers, document how it adversely affects their ability to participate in developmentally appropriate activities.

VIII. Complete the *Language Severity Rating Scale* using the data from the language assessment.

IX. Finalize and submit to the IEP team a *Speech and Language Evaluation Report* (Summary of Evaluation Results & Eligibility Determination.

USING THE LANGUAGE SEVERITY RATING SCALE

The *Language Severity Rating Scale* is to be used as a tool after a complete assessment of the student's communication abilities and after the SLP has interpreted assessment results. This scale is designed

to document the presence of assessment findings according to the intensity of those findings and to then make a determination, based on assessment results, if the student has a language impairment according to the definition in the *North Carolina Procedures Governing Programs and Services for Children with Disabilities*. The severity rating scale is not a diagnostic instrument and should not be used in the absence of assessment data. In order to be identified as a student with a language impairment, the language difficulties must be determined to have an adverse affect on educational performance. The rating scale serves three purposes:

1. to document the absence or presence of a language deviation and to what degree (*Mild*, *Moderate* or *Severe*),
2. to indicate the absence or presence of adverse effect on educational performance, and
3. to determine whether or not the student meets eligibility standards for a language impairment.

Educational performance refers to the student's ability to participate in the educational process and must include consideration of the student's social, emotional, academic and vocational performance. The presence of any deviation in language does not automatically indicate an adverse effect on the student's ability to function within the educational setting. The deviation must be shown to interfere with the student's ability to perform in the educational setting before a disability is determined. The effect on educational performance is, therefore, best determined through classroom observations, consultation with classroom teachers and special educators and interviews with parents and the student. Teacher checklists are useful for determining specifically how language problems affect educational performance.

Useful Forms for the Assessment of Language

SLI ELIGIBILITY/DISMISSAL CHECKLIST

Student Name _____ Grade _____
DOB_____

Speech-Language Pathologist _____ Date_____

Check all which are appropriate:

_____ 1. Communication disorder is no longer having a negative impact on student's educational (academic, social, vocational) performance.

_____ 2. Student no longer demonstrates significant speech-language impairment.

_____ 3. Parent requests/supports student not to receive school speech-language services at this time for the following reasons:
_____.

_____ 4. Student refuses to participate in speech-language program. List dates:
_____.

_____ 5. Student is receiving language enrichment in a classroom setting and these services meet student's needs in communication skills without additional related services at this time.

_____ 6. Student's communication needs can be met without speech-language as a related service.

_____ 7. Student is independently using strategies taught during speech-language services and no longer requires monitoring.

_____ 8. Student has met all attainable IEP goals which require the expertise of the speech-language pathologist.

_____ 9. Student progress has plateaued; student is no longer making progress in speech-language program.

_____ 10. Student has gained maximal benefit from speech-language services at this time.

11. Additional information:
_____
_____
_____.

Chapel Hill-Carrboro City Schools

Teacher's Rating Scale
Language Comprehension Skills Grades K-1

Student: _____Teacher: _____Date: _____Grade: _____

Please complete this form based upon observation of your student and return it to the speech-language pathologist. Your observations will help determine whether this student's communication problem is adversely affecting his/her educational performance. This document will be included in the student's final report; thus, it should be completed in ink.

Compared to other students in your class, this student exhibits strengths and weaknesses in the following areas:

	Significant Difficulty	Mild Difficulty	Unsure	Average	Above Average
1. Knows and uses vocabulary appropriate for age level (i.e., shapes, colors, names of common objects, etc.)	1	2	3	4	5
2. Understands concepts involving time, space, quantity, and directionality appropriate for age level.	1	2	3	4	5
3. Understands one to two step directions		1	2	3	4 5
4. Recognizes rhyming words		1	2	3	4 5
5. Comprehends stories:					
a. Identifies main idea		1	2	3	4 5
b. Sequences events using pictures	1	2	3	4	5
c. Answers age-appropriate comprehension questions	1	2	3	4	5
d. Predicts story events, identifies cause/effect relationships		1	2	3	4 5
e. Identifies main characters and setting		1	2	3	4 5
f. Identifies title, beginning and end of story	1	2	3	4	5
g. Identifies story problems	1	2	3	4	5
h. Retells/summarizes		1	2	3	4 5
6. Classifies by characteristics such as color, size, shape, structure and function		1	2	3	4 5
7. Solves simple problems		1	2	3	4 5

Teacher's Rating Scale
Language Comprehension Skills Grades 2-3

Student: _____Teacher: _____Date: _____Grade:

Please complete this form based upon observation of your student and return it to the speech-language pathologist. Your observations will help determine whether this student's communication problem is adversely affecting his/her educational performance. This document will be included in the student's final report; thus, it should be completed in ink.

Compared to other students in your class, this student exhibits strengths and weaknesses in the following areas:

	Significant Difficulty	Mild Difficulty	Unsure	Average	Above Average
3. Knows and uses vocabulary appropriate for age level (including antonyms, synonyms, and multiple word meanings)	1	2	3	4	5
4. Understands concepts involving time, space, quantity, and directionality appropriate for age level	1	2	3	4	5
3. Understands/uses correct verb tense and plural nouns	1	2	3	4	5
8. Follows multiple step oral directions		1	2	3	4 5
9. Demonstrates understanding of fiction and nonfiction material:					
i. Identifies main idea and important details	1	2	3	4	5
j. Sequences events	1	2	3	4	5
k. Makes predictions/draws conclusions		1	2	3	4 5
l. Identifies story problem/solution	1	2	3	4	5
m. Identifies story elements: character, plot, setting		1	2	3	4 5
n. Answers questions		1	2	3	4 5
o. Retells/summarizes		1	2	3	4 5
10. When given information, student can:					
a. Summarize		1	2	3	4 5
b. Describe	1	2	3	4	5
c. Compare/Contrast		1	2	3	4 5
d. Classify and categorize		1	2	3	4 5
11. Uses problem solving strategies (apply previous knowledge, Guess and check, make an organized plan, select a probable	1	2	3	4	5

Solution, brainstorm etc.)

From Cobb County, GA SLPs 2001

Chapel Hill-Carrboro City Schools

Teacher's Rating Scale
Language Comprehension Skills Grades 4-5

Student: _____Teacher: _____Date: _____Grade:

Please complete this form based upon observation of your student and return it to the speech-language pathologist. Your observations will help determine whether this student's communication problem is adversely affecting his/her educational performance. This document will be included in the student's final report; thus, it should be completed in ink.

Compared to other students in your class, this student exhibits strengths and weaknesses in the following areas:

	Significant Difficulty	Mild Difficulty	Unsure	Average	Above Average
5. Knows and uses vocabulary appropriate for age level:					
a. Basic word knowledge	1	2	3	4	5
b. Identifies words with similar meanings (synonyms)	1	2	3	4	5
c. Identifies words that have opposite meanings (antonyms)	1	2	3	4	5
d. Identifies multiple meanings of words (homonyms)	1	2	3	4	5
e. Determines meanings of unfamiliar words through context	1	2	3	4	5
f. Determines meanings of unfamiliar words using knowledge of prefixes, suffixes, and root words	1	2	3	4	5
g. Learns new concepts and vocabulary from content areas	1	2	3	4	5
6. Comprehends information from stories, events, and/or activities:					
a. Identifies main idea and important details	1	2	3	4	5
b. Identifies sequence of events	1	2	3	4	5
c. Answers questions	1	2	3	4	5
d. Makes inferences, draws conclusions	1	2	3	4	5
e. Identifies story elements (character, plot, setting, problem/solution)	1	2	3	4	5
f. Identifies point of view in a story selection	1	2	3	4	5
7. When given information, student can:					
a. Interpret	1	2	3	4	5
b. Organize	1	2	3	4	5
c. Summarize	1	2	3	4	5
d. Describe	1	2	3	4	5
e. Compare/contrast	1	2	3	4	5

f. Classify and categorize	1	2	3	4	5
12. Follows multiple step oral directions	1	2	3	4	5
13. Uses problem solving strategies (apply previous knowledge, Guess and check, make an organized plan, select a probable Solution, brainstorm etc.)	1	2	3	4	5
14. Understands expressions that have more than one meaning (idioms, figures of speech, ambiguous sentences, etc.)	1	2	3	4	5

Comments:

From Cobb County, GA SLPs 2001

Chapel Hill-Carrboro City Schools

Teacher's Rating Scale
Language Comprehension Skills – Middle and High School

Student: _____Teacher: _____Date: _____Grade: _____

Please complete this form based upon observation of your student and return it to the speech-language pathologist. Your observations will help determine whether this student's communication problem is adversely affecting his/her educational performance. This document will be included in the student's final report; thus, it should be completed in ink.

Compared to other students in your class, this student exhibits strengths and weaknesses in the following areas:

	Significant Difficulty	Mild Difficulty	Unsure	Average	Above Average
8. Knows and uses vocabulary appropriate for age level:					
a. Basic word knowledge	1	2	3	4	5
b. Identifies words with similar meanings (synonyms)	1	2	3	4	5
c. Identifies words that have opposite meanings (antonyms)	1	2	3	4	5
d. Identifies multiple meanings of words (homonyms)	1	2	3	4	5
e. Determines meanings of unfamiliar words through context	1	2	3	4	5
f. Determines meanings of unfamiliar words using knowledge of prefixes, suffixes, and root words	1	2	3	4	5
g. Learns new concepts and vocabulary from content areas	1	2	3	4	5
9. Comprehends information from stories, events, and/or activities:					
a. Identifies implicit and explicit main idea and important details	1	2	3	4	5
b. Identifies sequence of events	1	2	3	4	5
c. Answers literal and inferential questions	1	2	3	4	5
d. Makes inferences, draws conclusions	1	2	3	4	5
e. Identifies cause and effect relationships	1	2	3	4	5
10. Interprets narratives:					
a. Identifies plot, setting, theme	1	2	3	4	5
b. Identifies character development	1	2	3	4	5
c. Identifies point of view, author's purpose and style	1	2	3	4	5
15. When given information, student can:					
a. Interpret	1	2	3	4	5

b.	Organize	1	2	3	4	5
c.	Summarize/paraphrase (key points)	1	2	3	4	5
d.	Describe		1	2	3	4
	5					
e.	Compare/contrast	1	2	3	4	5
f.	Classify and categorize		1	2	3	4
	5					

16. Uses problem solving strategies (apply previous knowledge, Guess and check, make an organized plan, select a probable Solution, brainstorm etc.) 1 2 3 4 5

17. Understands expressions that have more than one meaning (idioms, figures of speech, ambiguous sentences, etc.) 1 2 3 4
    5

18. Distinguishes between fact and fiction, fact and opinion 1 2 3 4
    5

19. Follows multiple step oral directions 1 2 3 4
    5

Comments:

From Cobb County, GA SLPs 2001

Chapel Hill-Carrboro City Schools

Teacher's Rating Scale
Listening Skills

Student: _____Teacher: _____Date: _____Grade: _____

Please complete this form based upon observation of your student and return it to the speech-language pathologist. Your observations will help determine whether this student's communication problem is adversely affecting his/her educational performance. This document will be included in the student's final report; thus, it should be completed in ink.

Compared to other students in your class, this student exhibits strengths and weaknesses in the following areas:

	Significant Difficulty	Mild Difficulty	Unsure	Average	Above Average
1. Demonstrates appropriate listening behaviors (when to listen importance of listening, tuning out distractions, etc.) 1	2	3	4	5	
2. Listens attentively:					
a. Large group 5	1	2	3	4	
b. Small group 5	1	2	3	4	
c. Individual 5	1	2	3	4	
3. Responds within appropriate amount of time without need for repetition 5	1	2	3	4	
20. Oral directions:					
a. Follows simple directions 5	1	2	3	4	
b. Follows a sequence of directions (first…, next…, then…) 1	2	3	4	5	
c. Follows oral directions of increasing length and complexity 1	2	3	4	5	
21. Listens to orally presented material:					
a. Recalls information presented orally 1	2	3	4	5	
b. Answers questions following orally presented material 1	2	3	4	5	
c. Identifies main idea and/or topic 5	1	2	3	4	
d. Identifies important details 1	2	3	4	5	
e. Interprets and summarizes presented information 1	2	3	4	5	
22. Uses strategies to aid in recall of orally presented information (visual cues, rehearsal, listening for key words, grouping, etc.) 1	2	3	4	5	

Comments:

From Cobb County SLPs, Marietta, GA, 2001

CLASSROOM COMMUNICATION & LEARNING CHECKLIST

Student: _____ Date: _____ Teacher: _____

RATE THE EXTENT TO WHICH EACH OF THE STATEMENTS BELOW DESCRIBES THE STUDENT!

SCALE: **0** (never) **1** (rarely) **2** (some of the time) **3** (most of the time)

The Student:	**Rating**	**Comments**
LISTENING		
1. has trouble paying attention	0 1 2 3	
2. has trouble following spoken directions	0 1 2 3	
3. has trouble remembering things people say	0 1 2 3	
4. has trouble understanding what people are saying	0 1 2 3	
5. asks people to repeat what they have said	0 1 2 3	
6. has trouble understanding word meanings	0 1 2 3	
7. has trouble understanding new ideas	0 1 2 3	
8. has trouble looking at people when talking	0 1 2 3	
9. has trouble understanding facial expressions (body language)	0 1 2 3	
SPEAKING		
10. has trouble answering questions people ask	0 1 2 3	
11. has trouble answering questions as quickly as others	0 1 2 3	
12. has trouble asking for help	0 1 2 3	
13. has trouble asking questions	0 1 2 3	
14. has trouble using a variety of vocabulary words when talking	0 1 2 3	
15. has trouble thinking (finding) the right word to say	0 1 2 3	
16. has trouble saying what he or she is thinking	0 1 2 3	

17. has trouble describing things to people 0 1 2 3

18. has trouble staying on the subject when talking 0 1 2 3

19. has trouble getting to the point when talking 0 1 2 3

20. has trouble putting things in the right order 0 1 2 3

21. uses poor grammar when talking 0 1 2 3

22. has trouble using complete sentences when talking 0 1 2 3

23. talks in short, choppy sentences 0 1 2 3

24. has trouble expanding on an answer or providing details 0 1 2 3

25. has trouble having a conversation with someone 0 1 2 3

26. has trouble talking with a group of people 0 1 2 3

27. has trouble being understood (saying things another way) 0 1 2 3

28. gets upset when people don't understand him or her 0 1 2 3

READING

29. has trouble sounding out words when reading 0 1 2 3

30. has trouble understanding what he or she has read 0 1 2 3

31. has trouble explaining what he or she has read 0 1 2 3

32. has trouble identifying the main idea of what's read 0 1 2 3

33. has trouble remembering details from something read 0 1 2 3

34. has trouble following written directions 0 1 2 3

WRITING

35. has trouble writing what he or she is thinking 0 1 2 3

36. uses poor grammar when writing 0 1 2 3

37. has trouble writing complete sentences 0 1 2 3

38. writes short, choppy sentences 0 1 2 3

39. has trouble expanding an answer or providing details in writing 0 1 2 3

40. has trouble putting words in the right order in sentences 0 1 2 3

CHOOSE THE PROBLEMS THAT CONCERN YOU THE MOST. CIRCLE THE TOP 10 OUT OF 40

Please list any other you have observed or concerns you have about the student's listening, speaking, reading, and writing skills and rate them from 0-3.

Please return this form to _____ by _____ Thanks!

Form By Wayne A. Secord, 2002

TEACHER INPUT—LANGUAGE

Student: _____ School: _____Teacher: _____ Grade: _____

Your observations of the above student's language will help determine if a language problem adversely affects educational performance. Check all age-appropriate items that have been observed. Please return this completed form to the speech-language pathologist.

Listening—Auditory Processing—Memory—Receptive Language

The student:	**Yes**	**No**	**Sometimes**
• Can follow verbal directions during	____	____	____
○ Individual instruction	____	____	____
○ Group instruction	____	____	____
• Can follow classroom routines	____	____	____
• Requires clarification and/or repetition of directions	____	____	____
• Uses appropriate listening/attending skills	____	____	____
• Comprehends verbal information provided in class	____	____	____
• Answers questions appropriately	____	____	____
• Can ignore auditory distractions	____	____	____
• Retains new information	____	____	____
• Recalls old information	____	____	____
• Comprehends simple sentence structures	____	____	____
• Comprehends complex sentence structure	____	____	____
○ Passive voice (The boy was followed by the dog)	____	____	____
○ Relative clauses (the cake that Joy ate)	____	____	____
○ Pronoun reference (he = Billy)	____	____	____

Semantics—Concepts

The student:	**Yes**	**No**	**Sometimes**
• Can predict outcomes	____	____	____
• Can draw inference	____	____	____
• Recognizes different uses of words, depending on context	____	____	____
○ Recognizes meanings of antonyms and synonyms	____	____	____
○ Recognizes multiple meaning (fly: a fly, to fly)	____	____	____
○ Recognizes figurative language (hold your horses)	____	____	____
○ Differentiates homonyms (road—road)	____	____	____
○ Understands temporal (before/after), position (above/below), and quantitative (more/several) concepts…	____	____	____

Expressive Language

The student:	**Yes**	**No**	**Sometimes**
• Expresses ideas effectively	____	____	____
• Uses sentence structure and grammar that is appropriate for age/grade	____	____	____
• Asks WH- questions	____	____	____
• Expresses a logical sequence of ideas to tell a story or relate event	____	____	____
• Uses age-appropriate vocabulary	____	____	____
• Speaks with appropriate rte, volume, pitch and voice quality	____	____	____
○ Uses age-appropriate speech sounds	____	____	____

Social Communication/Pragmatics

The student:	**Yes**	**No**	**Sometimes**
• Participates in discussions	____	____	____
• Can carry on a meaningful conversation with adults and peers	____	____	____
• Begins, maintains, and ends conversation appropriately	____	____	____
• Makes relevant comments about the topic	____	____	____
• Understands humor, idioms, and other figurative language	____	____	____
• Attends to speaker—maintains eye contact appropriately	____	____	____
• Asks for clarification when message is not understood	____	____	____
1. Recognizes when the listener does not understand and attempts to clarify the message	____	____	____

Metalinguistics/Phonemic Awareness

The student:	**Yes**	**No**	**Sometimes**
• Participates in discussions……	____	____	____
• Can identify rhyming words…….	____	____	____
• Can verbally produce rhyming words……...	____	____	____
• Can identify initial consonant sounds in words presented orally……	____	____	____
• Can identify final consonant sounds in words presented orally……	____	____	____
• Can identify medial sounds in words presented orally……..	____	____	____
• Can blend sounds orally to form words……...	____	____	____
• Can segment sounds within a word orally……	____	____	____
2. Can manipulate sounds in words by deleting, substituting, adding and shifting sounds	____	____	____

It is my opinion that these behaviors _____ ***do*** _____ ***do not*** *adversely affect the student's educational performance.*

Comments: _____

_____

Teacher's Signature _____ Date _____

TEACHER INPUT – FUNCTIONAL COMMUNICATION

Student: _____ Birthdate: _____
Teacher: _____ Grade/Program: _____

Your observations of the above student's functional communication will help determine if such problems adversely affect educational performance. Check all items that have been observed. Please return the completed form to the Speech-Language Pathologist.

		Yes	No
1.	Are the communicative interactions (e.g., initiation, topic maintenance, turn-taking, greetings and closings) that convey social use of language adequate for classroom and social setting participation?	___	___
2.	Is the student usually successful in requesting, commenting and answering about objects, actions, etc.? (Note that any mode of communication is acceptable.)	___	___
3.	Is the student usually successful in using one or more modes of communication (e.g., verbal, sign, pointing, augmentative or alternative system)?	___	___
4.	Does the student comprehend others by demonstrating knowledge of what was conveyed through action or speech?	___	___
5.	Does the student use language at ability level to make his/her wants and needs known to others?	___	___
6.	Does the student use language at ability level to learn new information or to convey what has been learned?	___	___

What other observations relating to the communication skills of this student do you have?

_____
_____
_____

Teacher's Signature: _____ Date: _____

Adapted from standards for the delivery of speech-language services in Michigan public schools, Michigan Speech-Language Hearing Association (1985).

INFORMAL LANGUAGE ASSESSMENT CHECKLIST

(Documentation of observation and analysis of language sample)

Student _____ **Examiner** _____ **Date of Test** _____ **Date of Birth** _____ **CA** _____

CHILD CURRENTLY EXHIBITS THE FOLLOWING STRENGTHS AND WEAKNESSES.
(Only skills observed during evaluation will be marked.)

P = skill present

A = skill absent

E = skill judged to be emerging

CONCEPTS/SEMANTICS	**PROCESSING/SYNTAX**	**MORPHOLOGY**	
Spatial _____	☐ Y ☐ N – Answers Yes/No questions	☐ Y ☐ N – plural marker –s	☐ Y ☐ N – --ing ending on verbs
Location _____	☐ Y ☐ N – Asks Yes/No questions	☐ Y ☐ N – possessive marker –s	☐ Y ☐ N – past tense verbs—(ed)
Temporal _____	☐ Y ☐ N – Asks WH question	☐ Y ☐ N – irregular plurals	☐ Y ☐ N – irregular past tense
Sequence _____	☐ Y ☐ N – Follows simple directions	☐ Y ☐ N – articles the, a	☐ Y ☐ N – verb "is" as main verb
Inclusion/exclusion _____	☐ Y ☐ N – Follows complex directions	☐ Y ☐ N – prepositions in, on	☐ Y ☐ N – verb "is" as helping verb
Category names _____	☐ Y ☐ N – Uses primarily simple phrases	☐ Y ☐ N – pronouns—subjective	☐ Y ☐ N – 3rd person singular –s
Colors _____	☐ Y ☐ N – Full sentences (including verbs)	☐ Y ☐ N – pronouns—objective	
Category items _____	☐ Y ☐ N – Uses complex sentences	☐ Y ☐ N – pronouns—possessive	
	☐ Y ☐ N – Uses inversion question form		
NARRATIVE SKILLS (Ability to retell an event)			
Types of narratives used:	☐ Y ☐ N – Personal narratives	☐ Y ☐ N – Retells stories/TV shows/procedure	
Narratives told:	☐ Y ☐ N – With adult prompting	☐ Y ☐ N – Independently	
Sequence of utterances:	☐ Y ☐ N – Utterances sequenced	☐ Y ☐ N – Utterances told in random order	
Components included in narratives:	☐ Y ☐ N – People	☐ Y ☐ N – People	☐ Y ☐ N – Outcomes ☐ Y ☐ N – Place (setting)
PRAGMATICS (Use of language in communicative interactions)			
☐ Y ☐ N – Used appropriate action—turn taking	☐ Y ☐ N – Varied language for different contexts	☐ Y ☐ N – Used appropriate eye contact	
☐ Y ☐ N – Used appropriate verbal turn taking	☐ Y ☐ N – Maintained topics in conversation	☐ Y ☐ N – Initiated conversation	
☐ Y ☐ N – Responded in conversation	☐ Y ☐ N – Revised speech when not understood	☐ Y ☐ N – Provided background information to listener	

Language-Based Curriculum Analysis

Subject area: _____ **Grade:**_____

Teacher: _____ **SLP:**_____

School: _____ **Date:**_____

Number of Students: _____ **Textbook:**_____

Supplementary Materials:_____
_____

Part II: Review Vocabulary and Language Requirements

(Consider stated objectives as well as text material and supplemental information used by teacher)

A. Vocabulary Review

1. Identify prerequisite vocabulary for achieving stated objectives:

2. List new vocabulary to be introduced:

B. Language Requirements Review:

1. Comprehension: Students must demonstrate comprehension by : (please check all that apply)

_____**pointing/showing** _____**following oral directions**
_____**ordering/sequencing pictures/words/setences/numbers**
_____**role playing**
_____**demonstrating directions** _____**circling/drawing/ringing**
_____**manipulating objects** _____**answering questions**
_____**following written directions** _____**other(*please specify)***

2. Oral Expression: Student must express self orally by:
(please check all that apply)

___ defining vocabulary ____storytelling ___reading
___reciting known info. ____talking in complete sentences
___answering & asking questions ___clarifying responses
___explaining answers ___other (*please specify)*

Language-Based Curriculum Analysis

Subject area: _____ **Grade:**_____

Teacher: _____ **SLP:**_____

School: _____ **Date:**_____

Number of Students: _____ **Textbook:**_____

Supplementary Materials:_____
_____

Part II: Review Vocabulary and Language Requirements

B. Language Requirements Review (continued)

3. Written Expression: Students must express self in written form by:
(please check all that apply)

___tracing numbers/letters/word __copying numbers/letters/words
___writing numbers/letters __filling in sentences
___spelling words __writing complete sentences ___making outlines
___writing book reports ___writing stories ___writing explanations
___writing equations/formulas ___writing research reports ___other
___created word problems

Part III. Evaluate Needs for Vocabulary and Language Requirements

A. Vocabulary Needs Evaluation

1. For identified child(ren):

a. Does/Do child(ren) have the prerequisite vocabulary?
____Yes _____No (If no, specify vocabulary chjld(ren) lack)

b.What semantic confusions are likely with the new vocabulary to be introduced?

c. What syntactic confusions are likely?

d. What phonological confusions are likely?

Language-Based Curriculum Analysis

Subject area: _____ **Grade:**_____

Teacher: _____ **SLP:**_____

School: _____ **Date:**_____

Number of Students: _____ **Textbook:**_____

Supplementary Materials:_____
_____

Part IV: Make Modifications

A. Modifications to meet Vocabulary Need

1. Ways to establish prerequisite vocabulary:

a. for identified child(ren)

b. for classroom:

2. Ways to introduce new vocabulary:

a. for identified child(ren)

b. for classroom

Language-Based Curriculum Analysis

Subject area: _____ **Grade:**_____

Teacher: _____ **SLP:**_____

School: _____ **Date:**_____

Number of Students: _____ **Textbook:**_____

Supplementary Materials:_____
_____

Part IV: Make Modifications

B. Modifications to Meet Language Comprehension Requirements

1. To meet identified child (ren) needs:

2. To meet Classroom Needs

C. Modifications to Meet Oral Language Requirements

1. For identified chil(ren)

2. For classroom

D. Modifications to meet Written Language Requirements

1. For identified child(ren)

2. For classroom:

***(Secord, W., 2002)**

SPEECH, LANGUAGE, AND MOTOR DEVELOPMENT CHECKLIST
(An Outline of Developmental Sequence)

Name_____ Birthdate_____ CA_____
Evaluator_____ Date_____

The outline below provides a general summary of the developmental sequence of speech, language, and motor skills in normal children. Because children develop at different rates, avoid strictly applying the age approximations. The time intervals are provided only as a general guideline for age appropriateness. This information was compiled from a variety of sources, which included the American Speech-Language-Hearing Association (1983); Boone (1987); Gard, Gilman, and Gorman (1980); Hegde (1991); Kunz and Finkel (1987); Lane and Molynequx (1992); and Lenneberg (1969).

(Printed in Fall 1993 Edition of The Clinical Connection)

0-6 MONTHS

Speech and Language Skills

- ❑ Repeats the same sounds
- ❑ Frequently coos, gurgles, and makes pleasure sounds
- ❑ Uses a different cry to express different needs
- ❑ Smiles when spoken to
- ❑ Recognizes voices
- ❑ Localizes sound by turning head
- ❑ Listens to speech
- ❑ Uses the phonemes */b/, /p/,* and */m/* in babbling
- ❑ Uses sounds or gestures to indicate wants

Motor Skills

- ❑ Smiles
- ❑ Rolls over from front to back and back to front
- ❑ Raises head and shoulder from a face-down position
- ❑ Sits while using hands for support
- ❑ Reaches for objects with one hand but often misses
- ❑ Blows bubbles on lips
- ❑ Visually tracks people and objects
- ❑ Watches own hands

7-12 MONTHS

Speech and Language Skills

- ❑ Understands *no* and *hot*
- ❑ Responds to simple requests
- ❑ Understands and responds to own name
- ❑ Listens to and imitates some sounds
- ❑ Recognizes words for common items (e.g., cup, shoe, juice)
- ❑ Babbles using long and short groups of sounds
- ❑ Uses a song-like intonation pattern when babbling
- ❑ Uses a large variety of sounds in babbling
- ❑ Imitates some adult speech sounds and intonation patterns
- ❑ Uses speech sounds rather than only crying to get attention
- ❑ Listens when spoken to
- ❑ Uses sound approximations
- ❑ Begins to change babbling to jargon
- ❑ Uses speech intentionally for the first time
- ❑ Uses nouns almost exclusively
- ❑ Has an expressive vocabulary of 1 to 3 words
- ❑ Understands simple commands

Motor Skills

- ❑ Crawls on stomach
- ❑ Stands or walks with assistance
- ❑ Attempts to feed self with a spoon
- ❑ Rises to a sitting position
- ❑ Attempts to imitate gestures
- ❑ Uses smooth and continuous reaches to grasp objects
- ❑ Sits unsupported
- ❑ Drinks from a cup
- ❑ Pulls self up to stand by future
- ❑ Holds own bottle
- ❑ Plays ball with a partner
- ❑ Has poor aim and timing of release when throwing
- ❑ Enjoys games like peek-a-boo and pat-a-cake
- ❑ Uses a primitive grasp for writing, bangs crayon rather than writes
- ❑ Cooperates with dressing, puts foot out for shoe, and places arms through sleeves

13-18 MONTHS

Speech and Language Skills

- ❑ Uses adult-like intonation patterns
- ❑ Uses echolalia and jargon
- ❑ Uses jargon to fill gaps in fluency
- ❑ Omits some initial consonants and almost all final consonants
- ❑ Produces mostly unintelligible speech
- ❑ Follows simple commands
- ❑ Receptively identifies 1 to 3 body parts
- ❑ Has an expressive vocabulary of 3 to 20 + words (mostly nouns)
- ❑ Combines gestures and vocalization
- ❑ Makes requests for more of desired items

Motor Skills

- ❑ Points to recognized objects
- ❑ Runs but falls frequently
- ❑ Imitates gestures
- ❑ Removes some clothing items (e.g., socks, hat)
- ❑ Attempts to pull zippers up and down

19-24 MONTHS

Speech and Language Skills

- ❑ Uses words more frequently than jargon
- ❑ Has an expressive vocabulary of 50-100 or more words
- ❑ Has a receptive vocabulary of 300 or more words
- ❑ Starts to combine nouns and verbs
- ❑ Begins to use pronouns
- ❑ Maintains unstable voice control
- ❑ Uses appropriate intonation for questions
- ❑ Is approximately 25-50% intelligible to strangers
- ❑ Answers "what's that?' questions
- ❑ Enjoys listening to stories
- ❑ Knows 5 body parts
- ❑ Accurately names a few familiar objects

Motor Skills

- ❑ Walks without assistance
- ❑ Walks sideways and backwards
- ❑ Uses pull toys
- ❑ Strings beads
- ❑ Enjoys playing with clay
- ❑ Picks up objects from the floor without falling
- ❑ Stands with heels together
- ❑ Walks up and down stairs with help
- ❑ Jumps down a distance of 12 inches
- ❑ Climbs and stands on chair
- ❑ Rotates head while walking
- ❑ Reaches automatically with primary concern on manipulation of object
- ❑ Inserts key into lock
- ❑ Stands on one foot with help
- ❑ Seats self in a child's chair
- ❑ Makes a tower 3 cubes high

2-3 YEARS

Speech and Language Skills

- ❑ Speech is 50-75% intelligible
- ❑ Understands *one* and *all*
- ❑ Verbalizes toilet needs (before, during, or after act)
- ❑ Requests items by name
- ❑ Points to pictures in a book when named
- ❑ Identifies several body parts
- ❑ Follows simple commands and answers simple questions
- ❑ Enjoys listening to short stories, songs, and rhymes
- ❑ Asks 1- to 2-word questions
- ❑ Uses 3- to 4-word phrases
- ❑ Uses some prepositions, articles, present progressive verbs, regular plurals, contractions, and irregular past tense forms
- ❑ Uses words that are general in context
- ❑ Continues use of echolalia when difficulties in speech are encountered
- ❑ Has a receptive vocabulary of 500-900 or more words
- ❑ Has an expressive vocabulary of 50-250 words or more words (rapid growth during this period)
- ❑ Exhibits multiple grammatical errors
- ❑ Understands most things said to him or her
- ❑ Frequently exhibits repetitions—especially starters, "I and other first syllables
- ❑ Speaks with a loud voice
- ❑ Increases range of pitch
- ❑ Uses vowels correctly
- ❑ Consistently uses initial consonants (although some are misarticulated
- ❑ Frequently omits medial consonants Frequently omits or substitutes consonants
- ❑ Uses approximately 27 phonemes
- ❑ Uses auxiliary *is* including the contracted form
- ❑ Uses some regular past tense verbs, possessive morphemes, pronouns, and imperatives

Motor Skills

- ❑ Walks with characteristic toddling movements
- ❑ Begins developing rhythm
- ❑ Walks up and down stairs alone
- ❑ Jumps off floor with both feet
- ❑ Balances on one foot for one second
- ❑ Walks on tip-toes
- ❑ Turns pages one by one, or two to three at a time
- ❑ Folds paper roughly in half on imitation
- ❑ Builds a tower of 6 cubes
- ❑ Scribbles
- ❑ Uses a palmar grip with writing tools
- ❑ Paints with whole arm movements
- ❑ Steps and rotates body when throwing
- ❑ Drinks from a full glass with one hand
- ❑ Chews food
- ❑ Undresses self

3-4 YEARS

Speech and Language Skills

- ❑ Understands object functions
- ❑ Understands differences in meanings (stop-go, in-on, big-little)
- ❑ Follows 2-and 3-part commands
- ❑ Asks and answers simple questions (who, what, where, why)
- ❑ Frequently asks questions and often demands detail in responses
- ❑ Produces simple verbal analogies
- ❑ Uses language to express emotion
- ❑ Uses 4 to 5 words in sentences
- ❑ Repeats 6- to 13-syllable sentences accurately
- ❑ Identifies objects by name
- ❑ Manipulates adults and peers
- ❑ May continue to use echolalia
- ❑ Uses up to 6 words in a sentence
- ❑ Uses nouns and verbs most frequently
- ❑ Is conscious of past and future
- ❑ Has a 1,200-2,000 or more word receptive vocabulary
- ❑ Has a 800-1,500 or more word expressive vocabulary
- ❑ May repeat self often, exhibiting blocks, disturbed breathing, and facial grimaces during a speech
- ❑ Increases speech rate
- ❑ Whispers
- ❑ Masters 50% of consonants and blends
- ❑ Speech is 80% intelligible
- ❑ Sentence grammar improves, although some errors still persist
- ❑ Appropriately uses *is*, *are*, and *am* in sentences
- ❑ Tells two events in chronological order
- ❑ Engages in long conversations
- ❑ Uses some contractions, irregular plurals, future tense verbs, and conjunctions
- ❑ Consistently uses regular plurals, possessives, and simple past tense verbs

Motor Skills

- ❑ Kicks ball forward
- ❑ Turns pages one at a time
- ❑ Learns to use blunt scissors
- ❑ Runs and plays active games with abandonment
- ❑ Rises from squatting position

- ❑ Balances and walks on toes
- ❑ Unbuttons but cannot button
- ❑ Holds crayon with thumb and fingers, not fist
- ❑ Uses one hand consistently for most activities
- ❑ Traces a square, copies a circle, and imitates horizontal strokes
- ❑ Puts on own shoes, but not necessarily on the correct foot
- ❑ Rides a tricycle
- ❑ Builds a tower of 9 cubes
- ❑ Alternates feet while walking up and down stairs
- ❑ Jumps in place with both feet together
- ❑ Uses a spoon without spilling
- ❑ Opens doors by turning the handle

4-5 YEARS

Speech and Language Skills

- ❑ Imitatively counts to 5
- ❑ Understands concept of numbers up to 3
- ❑ Continues understanding of spatial concepts
- ❑ Recognizes 1 to 3 colors
- ❑ Has a receptive vocabulary of 2,800 or more words
- ❑ Counts to 10 by rote
- ❑ Listens to short, simple stories
- ❑ Answers questions about function
- ❑ Uses grammatically correct sentences
- ❑ Has an expressive vocabulary of 900-2,000 or more words
- ❑ Uses sentences of 4 to 8 words
- ❑ Answers complex 2-part questions
- ❑ Asks for word definitions
- ❑ Speaks at a rate of approximately 186 words per minute
- ❑ Reduces total number of repetitions
- ❑ Enjoys rhymes, rhythms, and nonsense syllables
- ❑ Produces consonants with 90% accuracy
- ❑ Significantly reduces number of persistent sound omissions and substitutions
- ❑ Frequently omits medial consonants
- ❑ Speech is usually intelligible to strangers
- ❑ Talks about experiences at school, at friends' homes, etc.
- ❑ Accurately relays a long story
- ❑ Pays attention to a story and answers simple questions about it
- ❑ Uses some irregular plurals, possessive pronouns, future tense, reflexive pronouns, and comparative morphemes in sentences

Motor Skills

- ❑ Runs around obstacles
- ❑ Pushes, pulls, and steers wheeled toys
- ❑ Jumps over 6-inch high object and lands on both feet together
- ❑ Throws ball with direction
- ❑ Balances on one foot for 5 seconds
- ❑ Pours from a pitcher
- ❑ Spreads substances with a knife
- ❑ Uses toilet independently
- ❑ Skips to music
- ❑ Hops on one foot
- ❑ Walks on a line
- ❑ Uses legs with good strength, ease, and facility
- ❑ Grasps with thumb and medial finger
- ❑ Releases objects with precision
- ❑ Holds paper with hand when writing
- ❑ Draws circles, crosses, and diamonds
- ❑ Descends stairs without assistance
- ❑ Carries a cup of water without spilling
- ❑ Enjoys cutting and pasting

5-6 YEARS

Speech and Language Skills

- ❑ Names 6 basic colors and 3 basic shapes
- ❑ Follows instructions given to a group
- ❑ Follows 3-part commands
- ❑ Asks *how* questions
- ❑ Answers verbally to *hi* and *how are you*
- ❑ Uses past tense and future tense appropriately
- ❑ Uses conjunctions
- ❑ Has a receptive vocabulary of approximately 13,000 words
- ❑ Names opposites
- ❑ Sequentially names days of the week
- ❑ Counts to 30 by rote
- ❑ Continues to drastically increase vocabulary
- ❑ Reduces sentence length to 4 to 6 words
- ❑ Reverses sounds occasionally
- ❑ Exchanges information and asks questions
- ❑ Uses sentences with details
- ❑ Accurately relays a story
- ❑ Sings entire songs and recites nursery rhymes
- ❑ Communicates easily with adults and other children
- ❑ Uses appropriate grammar in most cases

Motor Skills

- ❑ Walks backward heel-to-toe
- ❑ Does somersaults
- ❑ Cuts on a line with scissors
- ❑ Prints a few capital letters
- ❑ Cuts food with a knife
- ❑ Ties own shoes
- ❑ Builds complex structures with blocks
- ❑ Gracefully roller skates, skips, jumps rope, rides bicycle
- ❑ Competently uses miniature tools
- ❑ Buttons clothes, washes face, and puts toys away
- ❑ Reaches and grasps in one continuous movement
- ❑ Catches a ball with hands
- ❑ Makes precise marks with crayon, confining marks to a small area

6-7 YEARS

Speech and Language Skills

- ❑ Names some letters, numbers, and currencies
- ❑ Sequences number
- ❑ Understands *left* and *right*
- ❑ Uses increasingly more complex descriptions
- ❑ Engages in conversations
- ❑ Has a receptive vocabulary of approximately 20,000 words
- ❑ Uses a sentence length of approximately 6 words
- ❑ Understands most concepts of time
- ❑ Recites the alphabet
- ❑ Counts to 100 by rote
- ❑ Uses most morphologic markers appropriately
- ❑ Uses passive voice appropriately

Motor Skills

- ❑ Enjoys strenuous activities like running, jumping, racing, gymnastics, playing chase, and tag games
- ❑ Shows reduced interest in writing and drawing
- ❑ Draws a recognizable *man, tree*, and *house*
- ❑ Draws pictures that are not proportional
- ❑ Uses adult-like writing, but it is slow and labored
- ❑ Runs lightly on toes
- ❑ Walks on a balance beam
- ❑ Cuts out simple shapes
- ❑ Colors within lines
- ❑ Dresses self completely
- ❑ Brushes teeth without assistance
- ❑ Indicates well-established right- or left-handedness
- ❑ Follows advanced rhythms

LANGUAGE/PLAY DEVELOPMENTAL SCALES

AGE	LANGUAGE	SYMBOLIC PLAY	CONSTRUCTIVE PLAY
< 12 months	**Intentional Communication** ▪ Uses gestures and/or vocalizations to regulate behavior, participate in social interaction and reference joint attention ▪ Understands nonverbal, situational cues ▪ Initiates a topic by combining glances and vocalizations ▪ Takes one or two turns	▪ Exploratory action on objects ▪ Sensorimotor or functional play: mouthing, throwing, banging, shaking, pulling, turning, tearing, pushing, poking, etc.	
12 to 17 months	**First Words** ▪ Combines gestures and sounds to communicate intent ▪ Words tend to come and go in vocabulary ▪ Most words denote existence, nonexistence, recurrence, and rejection ▪ Repairs unsuccessful communicative interactions by repeating, modifying the form or using an alternative strategy ▪ Develops comprehension of single words to direction, attention to relevant objects or to suggest actions appropriate to the immediate environment ▪ Points to objects in response to "show me__" (body parts)	▪ Uses realistic objects conventionally ▪ Simple pretend play is directed toward self (eating, sleeping, etc.) ▪ Links schemes in simple combinations (puts person in car and pushes car)	▪ Combines at least two structured objects in relational play (plays with blocks, puts blocks in a container, stirs with a spoon) ▪ Relational or functional play predominates from 15-21 months ▪ Solitary or onlooker play

AGE	LANGUAGE	SYMBOLIC PLAY	CONSTRUCTIVE PLAY
18 to 30months	**First Word Combinations** ▪ Sudden surge in vocabulary growth to several 100 words ▪ Expands single-word semantic relations (action, attribute, possession, denial, location) ▪ Onset of two word utterances (MLU 1.5) ▪ Uses word combinations (action + object, agent + action, attribute + entity, action + location, possessor + possession) ▪ Uses words for prediction	▪ Can focus pretend play on animate and inanimate objects and others (feeding mother, feeding teddy bear) ▪ Can have inanimate objects perform actions (doll washes self) ▪ Uses single action scheme with several agents or recipients (stirs in cup, stirs in pot, stirs on plate)	▪ Combines at least four structured objects (tower of 4 blocks) ▪ Focuses on process of manipulating fluid materials (produces random scribbling or pounding)
18 to 24 months	▪ Uses imitation as predominant strategy in language learning ▪ Begins to engage in conversation (provides new information about topic, requests information, provides information about the past) ▪ Talks to self while playing ▪ Understands word meanings but depends on immediate knowledge of prior, similar experience and knowledge of semantic relations to know how these elements go together	▪ Play themes are restricted to very familiar events in which child participates regularly ▪ Parallel play	

AGE	LANGUAGE	SYMBOLIC PLAY	CONSTRUCTIVE PLAY
24 to 30 months **30 to 47 months**	▪ Can introduce a topic ▪ Engages in short dialogue of a few turns ▪ Repetition used to remain on topic ▪ Uses attention-getting words with intonation ▪ Understands WH questions: →*what* for object →*what* to do for action →*where* for location ▪ MLU = 1.75—2.25	▪ Uses one object to represent a different object that is similar ▪ Uses multiple related action schemes in sequence (feed doll with bottle, pat doll on back, put doll in bed) ▪ Pretend themes are restricted to personally experienced events	▪ Sand and water play consists of filling, pouring and dumping ▪ Can build with blocks horizontally and vertically ▪ Combines 4-6 structured objects with regard to ordinal relationship (stacks seriated rings, nests seriated cups)
30 to 36 months	**Sentence Grammar** ▪ Uses language to regulate own and other's actions, to plan and anticipate outcomes, report on present and past experiences, comment on imagined context, project own and other's feelings, and regulate interactions ▪ Expresses more than one function in a single utterance ▪ Develops semantic relational terms to encode spatial, dimensional, temporal, causal, quantity, color, age and other relations ▪ Uses grammatical morphemes, prepositions, tense markers, plural endings, pronouns and articles ▪ MLU = 2.75—3.5 ▪ Understands questions: →*whose* for possession →*who* for person →*why* for cause or reason →*how* many for number ▪ Understands gender contrasts in third person pronouns ▪ Asks WH questions—generally puts WH at beginning of sentence	▪ Pretends with object	▪ Produces simple 3-dimensional structure (builds bridge with blocks) ▪ Produces very simple figure using fluid materials with resemblance to target (draws a face, makes a hot dog with play dough)

AGE	LANGUAGE	SYMBOLIC PLAY	CONSTRUCTIVE PLAY
36 to 42 months	▪ Uses syntax (word order) ▪ Understands sentences based on morphological and syntactical rules (uses word order strategy for agent-action-recipient relations) ▪ Uses direct requests (*may I*, *could you*) ▪ MLU = 3.75 ▪ Uses past tense ▪ Uses future aspect (*gonna*)	▪ Gives dialogue to puppets and dolls ▪ Pretends without an object for a prop (uses imaginary objects) ▪ Pretend themes involve events that child has observed but not experienced; acts out sequences with miniature dolls (in house, garage, airport)	▪ Constructive play predominates from 36 months ▪ Uses blocks and sand box for imaginative play ▪ Can build vertical block structure that requires balance and coordination (9 blocks)
42 to 47 months	▪ Uses modals (*can*, *may*, *might*, *would*, *could*)	▪ Group play begins ▪ Joins other children in play ▪ Engages in sociodramatic play in which child takes role of someone else and elaborates on the theme in cooperation with other players ▪ Plans out pretend situations in advance, organizing who and what are needed for role playing ▪ Events in play are sequenced into a scenario that tells a story; links schemes into complex script with beginning, middle, and end (fix dinner, serve it, wash dishes, go to bed) ▪ Can make dolls carry out several activities or roles ▪ Creates imaginary characters ▪ Can direct actions of two dolls, making them interact	▪ Produces 3-dimensional enclosed structure (builds fort with blocks end to end to form enclosure) ▪ Produces figure with some detail included (draws arms and legs without body, makes animal figure using hot dog and pancake shapes)

AGE	LANGUAGE	SYMBOLIC PLAY	CONSTRUCTIVE PLAY
48 to 60 months	**Discourse Grammar** ▪ Learns to abide by conversational rules to be clear, concise, informative and polite ▪ Produces connected discourse by setting up transitions between sentences and clarifying shifts in reference from one clause or sentence to another to convey personal experiences and tell stories ▪ Understands connected discourse by using knowledge of scripts and story grammar to comprehend narratives ▪ Develops metalinguistic awareness of language structure and meaning (ability to focus attention on both language and content) ▪ Develops skills in making grammatical judgments, resolving lexical ambiguity, using multiple meanings of words in humor, and segmenting words into phonemes ▪ Modifies language when talking to younger child ▪ Discusses state, feelings, emotions and attitudes	▪ Develops novel schemes for events child has not experienced or observed ▪ Develops cooperative play	▪ Creates and repeats patterns in 3-dimentional structures (repeated use of pattern in fence with different pattern for gate in fort) ▪ Produces figure resembling target (draws body and many body parts; draws house that resembles a face - windows placed like eyes and door like mouth floating in space
60 to 65 months	▪ Can sustain topic through a dozen turns	▪ Organizes other children and props for role play ▪ Can direct actions of 3 dolls	▪ Games-with-rules play ▪ Constructs elaborate structures and uses microspheric objects in play with structure ▪ Produces figure in perspective of paper (draws house resting on bottom of paper as a baseline)
65 to 72 months		▪ Can direct dolls where each doll plays more than one role (father and doctor, daughter and patient)	▪ Constructs elaborate structure that is realistic reproduction with patterning and symmetry and uses structure with microscopic dramatic play ▪ Produces a 2-dimensional perspective in drawing (draws a baseline taking on qualify of a horizon with house in proper perspective)

LEVELS OF PLAY

Levels of Social Play

Individual/solitary play

- Unoccupied behavior: Child doesn't play but may watch others momentarily or play with own body
- Onlooking: Child observes children in groups but doesn't overtly enter into play (12 to 18 months)
- Solitary: Child plays alone, using toys different from children nearby with no conversation with others (12 to 18 months)

Parallel play

Child plays with toys or engages in activities similar to those of other children who are close by but not attempting to play with other children (2 years old)

Cooperative/group play

- Child plays with other children in a group; roles may or may not be assigned (3.5 years old).
- Child is cooperative when there is organization for the purpose of working together toward a common goal (4 to 5 years old).

Levels of Cognitive Play

Functional or sensorimotor or exploratory play

- Repetitive actions for pleasure: running, climbing, filling, emptying, etc.
- Comprises 33% of play for 3 to 5 year olds

Constructive play

- Combining sensory and motor functional play with symbolic play
- Systematic manipulation of materials to create a product or solve a problem - using blocks or paint to make something
- Most common form of play for young children, ranging from 40% of play for 3.5 year olds to 51% of play at ages 4, 5, and 6 years

Symbolic/socio-dramatic play

- Role-playing and/or make-believe transformation
- Role-playing - pretending to be a parent, baby, shark, super hero
- Make-believe transformations - pretending to drive a car (arm movements) or give an injection with a pencil (object use)

Games with Rules:

- Recognition and acceptance of and conformity with preestablished rules - tag, "Mother, May I?," marbles, checkers, kick ball, board games
- 5 year olds

Johnson, J. E., Christie, JJ. F., and Yawkey, T. D. (1987). Play and Early Childhood Development. Glenview, IL: Scott Foresman. Based on Rubin et al. (1978). Free-play behaviors in preschool and kindergarten children. Child Development, 49, 534-536.Stone, S. J. (1993). Playing: A Kid's Curriculum. Glenview, IL: Scott Foresman.

CHECKLIST FOR PHONOLOGICAL AWARENESS/EMERGING LITERACY PROGRESSION

Name_____ Birthdate_____ Grade_____

Does this child demonstrate the ability to:

_____ respond to the rhythm/prosodic elements of nursery rhymes, songs, finger plays, etc., by imitating vocal patterns?

_____ use beginning temporal sequencing, pairing a phrase in a rhyme or song with a corresponding movement, picture, or object?

_____ visually follow pointing and auditory cues that track from top to bottom and left to right of a page?

_____ distinguish between pictures and written words in a book (e.g., "Show me the pictures. Now show me the words".)

_____ respond appropriately to beginning word games (e.g., "What does the cow say?" or "Old McDonald had a farm and on his farm he had a _____")?

_____ recognize that some visual symbols stand for an entity (e.g., "When this child sees the golden arches, does this child say *McDonald's*"?)

_____ understand that a word is separate from its meaning and what constitutes a "long" word versus a "short" word (e.g., *caterpillar* is a long word and *snake* is a short word)?

_____ demonstrate an understanding of the language of literacy: _____ top, _____ bottom, _____ same/different, _____ first or beginning, _____ last or ending, _____ before, _____ after, _____ word?

_____ hear and see that portions of words are the same (e.g., thir*teen*, four*teen*, fif*teen*, etc.)?

_____ use rhymes where syllables are emphasized (e.g., ee nee, mee nee, mie nee, mo…?)

_____ recognize rhyming words?

_____ segment or count syllables in multisyllabic words?

_____ use top-to-bottom sequencing on a page?

_____ use left-to-right sequencing to sweep across lines in a text?

_____ point to individual words for reading, even though the words spoken may not be the correct ones?

_____ recognize his or her own written name?

_____ see his or her own first initial in other words?

_____ recognize other letters from his or her name in words that s/he sees?

_____ have sound-to-symbol correspondence for any alphabet letters? Which ones? _____

_____ think of a rhyming word for a word given by the teacher?

_____ segment a two-phoneme word into two parts (e.g., *sew* into /s/ and /ou/)?

_____ segment a three-phoneme word into three parts (e.g., *rope* into /r/, /ou/, /p/)?

Completed by (Print) _____ ***Position***_____ ***Date***_____
Signature _____

Adapted from Jenkins, R., & Bowen, L. (1994). Facilitating development of preliterate children's phonological abilities. Topics in Language Disorders, 14 (2), 26-39.

EARLY IDENTIFICATION OF LANGUAGE-BASED READING DISABILITIES

Name_____ Birthdate_____ Grade_____ Completed by_____

This checklist is designed to identify children who are at risk for language-based reading disabilities. It is intended for use with children at the end of kindergarten or beginning of first grade. Each of the descriptors listed below should be carefully considered and those that characterize the child's behavior/history should be checked. A child receiving a large number of checks should be referred for a more in-depth evaluation.

Speech Sound Awareness
- ❑ Doesn't understand and enjoy rhymes
- ❑ Doesn't easily recognize that words may begin with the same sound
- ❑ Has difficulty counting the syllables in spoken words
- ❑ Has problem clapping hands or tapping feet in rhythm with songs and/or rhymes
- ❑ Demonstrates problems learning sound-letter correspondences

Word Retrieval
- ❑ Has difficulty retrieving a specific word (e.g., calls a sheep a "goat" or says "you know a woolly animal.")
- ❑ Shows poor memory for classmates' names
- ❑ Speech is hesitant, filled with pauses or vocalizations (e.g., "um," "you know")
- ❑ Frequently uses words lacking specificity (e.g., "stuff," "thing," "what you call it")
- ❑ Has a problem remembering/retrieving verbal sequences (e.g., days of the week, alphabet)

Verbal Memory
- ❑ Has difficulty remembering instructions or directions
- ❑ Shows problems learning names of people or places
- ❑ Has difficulty remembering the words to songs or poems
- ❑ Has problems learning a second language

Speech Production/Perception
- ❑ Has problems saying common words with difficult sound patterns (e.g., animal, cinnamon, specific)
- ❑ Mishears and subsequently mispronounces words or names
- ❑ Confuses a similar sounding word with another word (e.g., saying "The Entire State Building is in New York")
- ❑ Combines sound patterns of similar words (e.g., saying "escavator" for escalator)
- ❑ Shows frequent slips of the tongue (e.g., saying "brue blush" for blue brush.)
- ❑ Has difficulty with tongue twisters (e.g., she sells seashells)

Comprehension
- ❑ Only responds to part of a multiple element request or instruction
- ❑ Requests multiple repetitions of instructions/directions with little improvement in comprehension
- ❑ Relies too much on context to understand what is said
- ❑ Has difficulty understanding questions
- ❑ Fails to understand age-appropriate stories
- ❑ Has difficulty making inferences, predicting outcomes, drawing conclusions
- ❑ Lacks understanding of spatial terms such as left-right, front-back

Expressive Language
- ❑ Talks in short sentences
- ❑ Makes errors in grammar (e.g., "he goed to the store" or "me want that")
- ❑ Lacks variety in vocabulary (e.g., uses "good" to mean happy, kind, polite)
- ❑ Has difficulty giving directions or explanations (e.g., may show multiple revisions or dead ends)
- ❑ Relates stories or events in a disorganized or incomplete manner
- ❑ May have much to say, but provides little specific detail
- ❑ Has difficulty with the rules of conversation, such as turn taking, staying on topic, indicating when s/he does not understand

Other Important Factors
- ❑ Has a prior history of problems in language comprehension and/or production
- ❑ Has a family history of spoken or written language problems
- ❑ Has limited exposure to literacy in the home
- ❑ Lacks interest in books and shared reading activities
- ❑ Does not engage readily in pretend play

Comments: _____

Catts, H.W. (1997) The early identification of language-based reading disabilities. Language Speech and Hearing Services in the Schools, 28, 86-87

SEMANTIC RELATIONS IN TWO AND THREE WORD PHRASES*

Two Word Phrases		Three Word Phrases	
1. AGENT-ACTION	√ Mommy jump; Baby push (while pushing toy); Daddy throw (while throwing ball); Baby walk	**1. AGENT ACTION OBJECT**	√ Dad hit ball; Baby eat cookie; I find ball; Sister kiss doll
2. ACTION-OBJECT	√ Drink milk; Roll ball; Push truck; Zip jacket	**2. AGENT-ACTION-LOCATIVE**	√ Mom go store; Dad come here; Baby fall down; Baby go bed
3. AGENT-OBJECT	√ Daddy shoe (as he puts shoe on); Mommy toy (mom is giving the toy)	**3. ACTION-OBJECT-LOCATIVE**	√ Drink juice kitchen; Take shoe car; Throw ball here
4. POSSESSIVE	√ Mommy car; Sister doll; Baby shoe; Dolly sock	**4. PHRASES WITH PREPOSITIONS**	√ Car <u>in</u> box; Hide <u>under</u> table; Soap <u>in</u> water; Put <u>in</u> box
5. DESCRIPTIVE	√ Blue ball; Red truck; Big ball; Blue car	**5. MODIFYING PHRASES**	√ Want <u>more</u> cheese; See <u>my</u> dog; Get <u>my</u> coat; Want <u>red</u> ball
6. LOCATIVE (PLACE, WHERE?)	√ In box; Slide down; Under able; Behind sofa; On table	**6. CARRIER PHRASES**	√ <u>I want</u> cookie; <u>I see</u> plane: <u>I like</u> Pooh Bear; <u>I love</u> mommy; <u>I want</u> cookie please; <u>I want</u> more juice
7. TEMPORAL	√ Go now; Cooky later; Go tomorrow; Milk now; Lunch later		
8. QUANTITATIVE	√ Two socks; One cup; Three balls		
9. CONJUNCTIVE (GOES TOGETHER)	√ Cup plate; Shoe sock; Jacket hat; cereal milk		
10. EXISTENCE	√ This bear; That cookie		
11. RECURRENCE	√ More juice; more cookie; More music		
12. NONEXISTENCE (NONE HERE)	√ No bear; All gone juice; All gone doll		
13. REJECTION (DON'T WANT)	√ No milk; No want; No banana; No sleep		
14. DENIAL (THIS ISN'T)	√ No muice (it's milk); No cookie (it's cereal); No daddy (it's uncle Bob)		

*Communication Skills in Children with Down Syndrome: A Parents Guide, Woodbine House

DETERMINING THE TYPE-TOKEN RATIO

The type-token ratio (TTR) is an easy-to-calculate measure of functional vocabulary skills. The ratio reflects the diversity of words used by the student during the language sample. Templin (1957) reported that normally developing children between the ages of 3 and 8 years have TTRs of .45-.50. A substandard TTR is one indicator of an expressive language delay or disorder. You must avoid using this kind of normative data as a single or primary method for establishing a diagnosis.

After you have transcribed the language sample, number every new word produced by the child. The last number you write is the number of different words produced. To calculate the TTR, divide the number of different words by the total number of words in the sample. For example:

$$\frac{\text{100 different words}}{\text{200 total words}} = .50 \text{ TTR}$$

Stickler (1987) presents a modification of the TTR. Rather than count all the different words, count the different *types* of words used in the sample. She uses eight different word types: nouns, verbs, adjectives, adverbs, prepositions, pronouns, conjunctions, affirmatives *(yeah, okay,* etc.) and negatives *(no, not,* etc.), articles, and wh-words *(who, where,* etc.). Calculations are made by dividing the number of each different type of word by the total number of words in the sample. This method allows you to evaluate the diversity of word types used by your student. The *Type-token Ratio for Assessment of Semantic Skills* form is a worksheet you can use to itemize word-type frequencies for the TTR calculation. Under the appropriate column, record first-time productions of each word noted during the language sample. Each time the student uses a word already recorded, tally the repeated production next to the original entry.
For example:

go		**(1 production of this word)**
in	**✓**	**(2 productions)**
me	**✓✓✓**	**(4 productions)**
no	**✓✓✓✓✓**	**(7 productions)**

Source: Shipley, K.G. and McAfee, J. G. Assessment in Speech—Language Pathology: A Resource Manual. San Diego: Singular Publishing Group, 1992. Reprinted with Permission.

TYPE-TOKEN RATIO FOR THE ANALYSIS OF SEMANTIC SKILLS[1]

Name: _____ Age: _____ Date: _____
Examiner: _____

Instructions: *Under the appropriate word-type column, record first-time utterances of every word. Repeated productions of the same word are marked with a tally next to the original entry. Count total productions of every different word and total productions of every different word type and enter in the summary section.*

Nouns	Verbs	Adjectives	Adverbs	Prepositions

Source: Shipley, K.G. and McAfee, J. G. Assessment in Speech—Language Pathology: A Resource Manual. San Diego: Singular Publishing Group, 1992. Reprinted with Permission.

Permission also from Thinking Publications, Eau Claire, WI.

1 Excluding the identifying information and instructions sections, this form is from K. Rutherford Stickler (1987), Guide to Analysis of Language Transcripts (pp. 201-202), Eau Claire, WI: Thinking Publications. Used by permission.

Type-token Ratio for the Analysis of Semantic Skills *(continued)*

Pronouns	Conjunctions	Negative/ Affirmative	Articles	Wh-Words

Summary

Total Number of Different
Nouns _____
Verbs_____
Adjectives _____
Adverbs _____
Prepositions _____
Pronouns _____
Conjunctions _____
Negative/Affirmative _____
Articles _____
Wh-Words _____

Total Number of Different Words _____

Total Number of
Nouns _____
Verbs_____
Adjectives _____
Adverbs _____
Prepositions _____
Pronouns _____
Conjunctions _____
Negative/Affirmative _____
Articles _____
Wh-Words _____

Total Number Words _____

Total Number of Different Words
Total Number of Words = _____ = Type Token Ratio (TTR)

ASSESSING BASIC COMMUNICATION SKILLS: A FUNCTIONAL COMMUNICATION CHECKLIST

What is this form?

It consists of a rating scale of basic communication behaviors that are important in assessing children with Multiple Disabilities and/or children in the lower functioning range. Information from a variety of sources was used in developing the checklist.

Why use the checklist?

SLPs often have difficulty finding appropriate assessment tools for lower functioning children. The checklist covers basic communication skills and assists in evaluating communication performance in the natural environment. It can be used as one of the components of a language evaluation to establish eligibility, to determine IEP goals, and to evaluate progress over time.

Who uses the Functional Communication Checklist?

It was developed by Speech-Language Pathologists. The information could be useful to a variety of professionals working with the student. SLPs use observation, direction interaction with the student and feedback from teachers and family members to complete the checklist.

For which students would the checklist be appropriate?

It can be used with students from preschool through high school that are functioning at a basic communication level. It may be used with developmentally delayed preschoolers, students with intellectual disabilities and students with Multiple Disabilities.

Why was it developed and where is it used?

The checklist was developed as part of a two-year project on authentic assessment in Cobb County, Georgia and is currently used by many Speech-Language Therapists in public school systems in Georgia. It is used to gather information on communicative functioning across environments (classroom, school settings, home and community settings). It can be appropriate for use by professionals in other settings as well.

Article and checklist published in The Clinical Connection. Volume 11, Number 3

FUNCTIONAL COMMUNICATION CHECKLIST

NAME _____ **EVALUATOR** _____

SCHOOL _____ **DOB** _____ **CA** _____

RATING SCALE *Never: 1 Rarely 2 Sometimes 3 Usually 4 Consistently 5*	Date	Date	Date
1. Please rate the methods of communication used by the student:			
▪ Eye gaze			
• Gesture			
• Physical manipulation			
• Vocalization (i.e., nonspeech, grunts)			
• Facial expression			
• Sign language (___ idiosyncratic ____ format)			
• Verbalization			
• Augmentation (i.e., picture board, device)			
• Other			
2. Please rate communication interactions:			
▪ Initiates communication interactions			
• Appropriately maintains communication interactions			
• Demonstrates turn-taking behaviors			
• Appropriately terminates communication interactions			
• Appropriately responds to communication interactions			
3. Please rate communication functions:			
▪ Gains attention of people within environment			
• Makes requests (i.e., want, help)			
• Expresses rejection (i.e., "no", "don't want"			
• Expresses wants and needs within an activity			
• Expresses activity choice			
• Responds to questions with "yes" and "no"			
• Expresses recurrence ("more")			

NAME _____

RATING SCALE *Never: 1 Rarely 2 Sometime 3 Usually 4 Consistently 5*	Date	Date	Date
3. Please rate communication functions *(CONTINUED)*:			
▪ Expresses "finished" or "all gone" or "gone"			
▪ Provides greetings/farewells			
▪ Expresses comments (i.e., "I like it". "It's soft".)			
▪ Expresses feelings			
▪ Expresses physical conditions			
▪ Answers basic questions			
▪ Asks questions			
4. Please rate expressive language skills:			
A. Phonology: Sound Production Patterns Check the phonemes or speech sounds produced by the student—include sound/word inventory: ▪ Speech sounds _____ _____ ▪ Babbling—consonant-vowel combinations _____ _____ ▪ Jargon-speech sounds combined into patterns with intonations _____			
B. Echolalia: Check if student demonstrates echolalia in communication. Timing: Immediate _____ Delayed _____ Echolalia: Exact _____ Mitigated (changed) _____ Function: To continue interaction _____ To demonstrate comprehension _____ Comments _____ _____ _____			

NAME _____

RATING SCALE *Never: 1 Rarely 2 Sometime 3 Usually 4 Consistently 5*	Date	Date	Date
C. Rate oral language skills demonstrated: ▪ Produces single word approximations (i.e., "ma"/"mamma")			
▪ Produces single word utterances—*Check categories observed:* ___agent (baby) ___action (drink) ___ object (cup) ___location (up) ___ recurrence (more) ___ possession (mine)			
▪ Imitates new words			
▪ Produces two-word utterances			
▪ Produces three-word utterances			
▪ Produces short sentences			
5. Receptive Language: Rate receptive language skills			
▪ Alert to environmental noises			
▪ Localizes to sound source/speaker's voice			
▪ Responds to name			
▪ Anticipates familiar routines			
▪ Follows simple directions with visual cue			
▪ Follows simple directions with verbal cue			
▪ Follows one/two step directional commands			
▪ Identifies familiar people/objects within environment			
▪ Identifies photographs of familiar objects			
▪ Identifies drawings of familiar objects			
▪ Identifies objects through function			
▪ Identifies objects by color / size / shape			
▪ Demonstrates comprehension of directional concepts			
▪ Demonstrates comprehension of basic "wh" questions			
▪ Demonstrates object permanence (ability to represent objects and events not perceptually present)			
▪ Demonstrates mean-end behaviors (actions to achieve a goal)			
▪ Demonstrates functional object use and object classification (perception of relationships)			
▪ Demonstrates symbolic behavior (ability to internalize and reproduce information)			

NARRATIVE ANALYSIS*

One means of assessing expressive language is through the use of narrative analysis. This approach is used for the following reasons:

1. Narrative language skill is associated with other academic skills.
    - Studies indicate a relationship between narrative ability in the preschool years and later language and literacy measures. Bishop and Edmundson (1987) and Paul and Smith (1993) have found that a story retelling task was the best predictor among several tests for identifying a persistent language disorder. Many preschool children who performed poorly on a narrative retelling task continued to show language deficits as they got older.
    - During reading lessons, teachers ask students to summarize or paraphrase what they've read, then make inferences about students' comprehension of the material based on their narrative responses (Milosky 1987).
- As students progress in school, teachers' judgments of their comprehension of other subjects (e.g., history, science, literature) are based on students' narrative answers, either oral or written.
- The use of both oral and written language as a medium for acquiring knowledge is crucial to academic success (Roth 1986).
2. Narratives have high ecological validity. They occur naturally within school settings and outside of them.
3. For young children, Paul and Smith (1993) advocate narrative assessment as "naturalistic and easily elicited in a standard format" (p. 597).
4. For school-aged children, oral narratives are part of classroom talk as students describe, explain and interpret events (Crais and Lorch 1994).
5. The ability both to produce and comprehend oral and written narrative language plays an important role in the daily interaction of students, teachers and books (Milosky 1997).
6. Production of narratives is a rigorous test of many levels and aspects of language content, form and use.
7. Most narratives are monologues, with the major burden of formulation and production resting squarely on the child.
8. Narration requires recall and organization of content, adaptation to listeners' background knowledge, formulation of new utterances and relating them to prior utterances, and introduction of referents followed by clear subsequent reference to them (Milosky 1987).
9. Narrative language tasks can be adjusted to increase or decrease difficulty, thus revealing the optimal degree of support needed.
10. Both comprehension and production of narratives can be assessed to determine similarities and differences between these two modal ties.

There are several appropriate sampling methods for eliciting narratives:

- Personal narratives
- Scripts
- Fictional narratives – story retelling and story generation with or without visual stimuli and with or without shared context

**Hughes, D., McGillivray, L., and Schmidek, M. (1997). Guide to narrative language: Procedures for assessment. Thinking Publications.*

DEVELOPMENT OF NARRATIVE SKILLS

1. Heaps

- Text organization comes from whatever attracts attention
- No story macrostructure
- No relationship or organization among elements or individual microstructures

2. Sequences

- Narrative has macrostructure with central character, setting, topic
- Activities of central character occur in particular setting
- Story elements are related to central macrostructure through concrete associative, or perceptual bonds
- Superficial sequences in time
- No transitions
- May use format A does X, A does Y, A does Z; or A does X to N, A does X to O, A does X to P
- No ending narrative
- Trip stories may be in this category if events lack logical sequence or trip theme

3. Primitive Narratives

- Characters, objects, or events of narratives are put together because they are perceptually associated and complement each other
- Elements of the narrative follow logically from attributes of the center
- Attributes of the center are internal to the character, objects, events, and they determine the types of events that occur
- May use inference in narrative
- Narrative goes beyond perceptual and explicit information, but stays concrete, with links forged by shared situation rather than abstract relationship
- May talk about feelings
- Organized trip stories fall in this category if they include multiple comments on events, including interpretive feelings

4. Unfocused Chains

- Events are linked logically (cause-effect relationship)
- Elements are related to one another
- No central theme or character, no plot or story theme
- Lack of evidence of complete understanding of reciprocal nature of characters and events
- True sequence of events

5. Focused Chains

- Organized with both a center and a sequence
- Actual chaining of events that connect the elements
- Does not have a strong plot
- Events do not build on attributes of characters
- Characters and events of narratives seldom reach toward a goal
- Weak ending, no ending, or end does not follow logically from the beginning
- May be problems of motivating events that cause actions
- Transitions are used
- More *because-then* chains are used
- May be a trip story if the events follow logically from each other more than just occurring next on the same trip

6. True Narratives

- Integrate chaining events with complementary centering of the primitive narrative
- A developed plot
- Consequent events build out of prior events and also develop the central core
- Ending reflects or is related to the issues or events presented in the beginning of the narrative
- Intentions or goals of characters are dependent on attributes and feelings

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From "Development of the Concept of Story in Narratives Written by Older Children" by N.W. Nelson & K.K. Friedman, in Childhood Language Disorder in Context: Infancy through Adolescence (p. 430), by N.W. Nelson, 1993, Neecham Heights, MA: Alyn & Bacon.

DEVELOPMENTAL MILESTONES OF NARRATIVE PRODUCTION USED FOR MACROSTRUCTURE*

Developmental Age	Personal and Fictional Narratives	Narrative Level	Story Structure Level
About 2 years	Children embed narratives in adult-child conversations, with basic elements of narrative structure but no identifiable high point.	Heaps and sequences, and centering	
About 3 years	Children can produce verbal descriptions of temporally organized general knowledge about routine events; children can independently report memories of past specific episodes with little support (i.e., questions and cues); no identifiable high point.	Primitive narrative and unfocused chain	Descriptive and action sequences; more likely if retelling than generating a story
About 4 years	Children's narratives have no identifiable high point; 13% of personal narratives incorporate goal-directed episodes.	Focused chains	Complete episodes in 16% of 4-year-olds' stories; reactive sequences
About 5 years	42% of 5-year-old children incorporate goal-directed episodes; 95% of stories by children 5 and older have a central focus or high point; children end narratives at the high point.	True narratives	Earlier story structure levels still occur; some complete episodes may occur. In fictional stories, children include setting information and may attempt to develop a plot
About 6 years	After age 5 years, children build to a high point and resolve it in classic form.		Abbreviated episode
Around 7-8 years	Children use codes to tie personal narratives together; children use introducers in elicited personal narratives.	Narrative summaries	60% of 8-year-olds' stories are complete episodes. Stories include internal goals, motivations, and reactions that are largely absent in stories produced by younger children; some episodes will be incomplete. Multiple episodes
Around 11 years/ 5th grade	Children tell coherent, goal-based, fictional stories, although reference to internal states is still rare; 10-year-olds may be limited to number of embedded or interactive episodes they can handle when retelling a story.	Complex narratives	Complex episode Embedded episode Interactive episode
Around 13 years		Analysis and generalization	
*Note that information is based on narrative generation, not retelling unless specified.			
Sources: Hedberg and Westby (1993); Hudson and Shapiro (1991); Kemper (1984); Peterson and McCabe (1953)			

STORY STRUCTURE LEVELS – ORDERED FROM LEAST TO MOST COMPLEX

Story Structure Levels	Developmental Age	Description
1. Descriptive Sequence	Preschool	Describes character(s), surroundings, and habitual actions with no causal relations
2. Action Sequence	Preschool	Lists actions that are chronologically but not causally ordered
3. Reactive Sequence	Preschool	Includes a series of actions, each of which automatically causes other actions, but with no planning involved; no clear goal-directed behavior
4. Abbreviated Episode	About 6 years	Provides aims or intentions of a character but does not explicitly state the character's plan to achieve aims; planning must be interred
5a. Incomplete Episode	Around 7-8 years	States planning, but one or more of the three essential story grammar parts of a complete episode is missing: IE, A, or C
5b. Complete Episode	Around 7-8 years	Includes aims and plans of a character; may reflect evidence of planning in the attempts of a character to reach the goal; has at minimum an initiating event, an attempt, and a consequence; uses words like *decided to*
5c. Multiple Episodes	Around 7-8 years	Is a chain of reactive sequences or abbreviated episodes, or a combination of complete and incomplete episodes
6. Complex Episode	Around 11 years	Includes elaboration of a complete episode by including multiple plans, attempts, or consequences within an episode; includes an obstacle to the attainment of a goal; may include a trick as in "trickster tales".
7a. Embedded Episode	Around 11 years	Embeds another complete episode or reactive sequence within an episode
7b. Interactive Episode	None established by research; beyond 11-12 years	Describes one set of events from two perspectives, with characters and goals influencing each other; may have a reaction or consequence for one character serving as an initiating event for another character.

Sources: Glenn and Stein (1980); Hedberg and Wesby (1993); Liles (1987); Steing (1988); Peterson and McCabe (1983)

NARRATIVE LEVELS ANALYSIS

Name: _____ **Date:** _____

Age: _____ **Examiner:** _____

DIRECTIONS: *Place check marks to reflect the highest level of narrative development for formulated and reformulated tasks*

Cognitive Period	***Approximate "Normal" Age of Emergence***	***Mode of Organization***	***TASKS***	
Pre-operations	2 years	Heaps		
	2 to 3 years	Sequences		
	3 to 4 years	Primitive narratives		
	4 to 4 ½ years	Unfocused chains		
	5 years	Focused chains		
	6 to 7 years	Narratives		
Concrete	7 to 11 years	Summarization		
	11 to 12 years	Complex stories		
Formal	13 to 15 years	Analysis		
	16 years to adult	Generalization		

Description of formulated task: _____

Description of reformulated task: _____

Comments: _____

_____

_____

_____

Adapted with permission from: Communication Assessment and Intervention Strategies for Adolescents. V.L. Larson and N.L. McKinley. Thinking Publications. Eau Claire, WI. 1987.

LEVELS OF STORY GRAMMAR DEVELOPMENT

Glenn and Stein (1980) have suggested a developmental taxonomy for the acquisition of story grammar skills. Seven different levels have been identified ranging in complexity from simplest to most complex. Each level contains all the components of the previous levels with one additional component added.

Level 1 DESCRIPTIVE SEQUENCE

This story is comprised of descriptions of characters, surroundings, and usual actions of the characters. No causal relationships or sequences of events are present.

Level 2 ACTION SEQUENCE

This story consists of events in a chronological order but no causal relationships exist.

Level 3 REACTIVE SEQUENCE

This story does contain a causal relationship in that certain changes automatically cause other changes. There is no evidence of goal-directed behavior.

Level 4 ABBREVIATED EPISODE

At this level, a goal is implied even though it may not be stated explicitly. This story contains either an event statement with a consequence or an internal response with a consequence. The actions of the characters seem to be purposeful, though not as well thought out as in successive stages.

Level 5 COMPLETE EPISODE

This story contains an entire goal-oriented behavior sequence. A consequence is required as well as two of the following three components: Initiating Event, Internal Response, Attempt.

Level 6 COMPLEX EPISODE

This level is an elaboration of the complete episode, with an additional partial or complete incident embedded in the episode. A story at this level could also contain multiple plans which are used to achieve the goal. Either one of these factors or both must be present.

Level 7 INTERACTIVE EPISODE

The interactive episode is the highest level. This story contains two characters with separate goals and actions that influence the actions of the other.

Source: Hutson-Nechkash, P. Storybuilding. Eau Claire, WI: Thinking Publications, 1990. Reprinted with permission

.

STORY GRAMMAR ASSESSMENT

NAME _____ DATE _____

Degree of structure provided:

___ No additional structure
___ Medium amount of structure
___ High degree of structure

Collect a narrative from the student.

_____

1.	IS A SETTING GIVEN?	YES	NO
2.	ARE THE CHARACTERS DESCRIBED?	YES	NO
3.	ARE THE EVENTS PRESENTED SEQUENTIALLY?	YES	NO
4.	IS THERE A CAUSAL RELATIONSHIP BETWEEN EVENTS?	YES	NO
5.	IS THERE AN INITIATING EVENT (IE)?	YES	NO
6.	IS A GOAL PRESENT?	YES	NO
7.	IS THERE A CONSEQUENCE?	YES	NO
8.	IS AN INTERNAL RESPONSE (IR) PRESENT?	YES	NO
9.	IS THERE AN ATTEMPT TO ATTAIN THE GOAL?	YES	NO
10.	ARE MULTIPLE PLANS USED TO MEET THE GOAL?	YES	NO
11.	IS A PARTIAL OR COMPLETE EPISODE EMBEDDED IN THE EPISODE?	YES	NO
12.	ARE THERE TWO CHARACTERS WITH SEPARATE GOALS AND ACTIONS THAT INFLUENCE THE ACTIONS OF THE OTHER?	YES	NO

Number of YES Responses _____ ÷ 12 x 100 = _____ %

LEVEL OF STORY GRAMMAR DEVELOPMENT _____

Comments _____
_____

STYLE OF NARRATION ASSESSMENT

NAME: _____ DATE: _____

For each narrative sample collected, answer the following questions:

1. IS THE NARRATIVE GRAMMATICAL?	YES	NO
2. IS SUFFICIENT INFORMATION PRESENTED?	YES	NO
3. DOES THE LISTENER UNDERSTAND THE NARRATIVE WITHOUT ASKING QUESTIONS OF CLARIFICATION?	YES	NO
4. IS THE NARRATIVE PRESENTED IN A FLUENT MANNER (I.E., WITHOUT PAUSES, HESITATIONS, REVISIONS, OR FALSE STARTS)?	YES	NO
5. DOES THE SPEAKER TELL THE STORY WITHOUT EXHIBITING FRUSTRATION OR OBVIOUS DIFFICULTY?	YES	NO
6. IS ONE TOPIC PRESENTED (IF MORE THAN ONE TOPIC IS GIVEN, IS THERE A SMOOTH AND APPROPRIATE TRANSITION BETWEEN TOPICS)?	YES	NO
7. DO ALL THE STATEMENTS PERTAIN TO THE TOPIC(S)?	YES	NO
8. ARE PRECISE VOCABULARY TERMS USED (I.E., WITHOUT LOW INFORMATION WORDS LIKE *THINGS* OR *STUFF*)?	YES	NO
9. ARE FACILA AND BODY EXPRESSIONS APPROPRIATE TO THE STORY?	YES	NO
10. WAS THE TOPIC OF THE NARRATIVE APPROPRIATE FOR THE AUDIENCE?	YES	NO

Number of YES Responses _____ ÷ 10 x 100 = _____ %

DESCRIPTION OF NARRATIVE TASK _____

Comments _____

_____

_____

_____

PRAGMATIC LANGUAGE CHECKLIST

Student: _____ **School:** _____ **Grade:** _____ **Date:** _____

Settings: _____

_____

_____

Completed by_____ **/Title**_____

I. INTERACTIONAL SKILLS ("how")	Verbal	Other
A. Sequential Organization		
1. Openings—establish eye contact	_____	_____
2. Initiation—speaking to person	_____	_____
3. Attending to Speaker—attentive listener	_____	_____
4. Appropriate Responding—answering questions	_____	_____
5. Speaker Selection—acknowledging another as speaker in group	_____	_____
6. Appropriate Interruptions—"excuse me"	_____	_____
7. Closings—appropriately	_____	_____
B. Coherent		
1. Establishing Topic—indirectly suggesting a subject of shared interest	_____	_____
2. Maintaining Topic—participating	_____	_____
3. Back channeling—small words used to indicate they are listening ("oh", "I see")	_____	_____
4. Accompaniments—request to continue topic of conversation	_____	_____
5. Conversational Questions—to initiate and maintain conversation	_____	_____
6. Sequencing—ability to follow temporal events/order of subject importance	_____	_____
7. Chunking—conjunctions	_____	_____
8. Signaling Topic Shifts—closing topic	_____	_____
C. Repair		
1. Clarification—request or giving more detailed information	_____	_____
D. Roles		
1. Politeness Markers/Tact—don't impose on listener	_____	_____
2. Communication Distance	_____	_____
3. Register Shifts—switch codes as needed; relate to audience	_____	_____

II. INTENTS ("why")	Verbal	Other
A. Requests		
1. Yes/No Questions	_____	_____
2. WH Questions	_____	_____
3. Action Requests	_____	_____
4. Permission requests	_____	_____
5. Object Requests	_____	_____

Source: Colorado Guidelines for Speech/Language Impairments

III. INTENTS ("why")—cc	Verbal	Other

B. Responses

1.	Yes/No Answers		
2.	WH Answers		
3.	Agreements		
4.	Compliances—comply with or refusing to comply		
5.	Qualifications—supplying unexpected information		
6.	Imitations—part or whole repetitions of prior utterances		

C. Descriptions

1.	Greetings		
2.	Identifications—labeling object, person, event, situation		
3.	Possessions—indicating ownership		
4.	Events—actions, processes described		
5.	Properties—observable traits or conditions of objects, events, situations		
6.	Locations—location or direction of an object or event		
7.	Times—times are reported		

D. Statements

1.	Rules—express rules, conventional procedures, analyze facts, definitions or clarifications		
2.	Evaluations—impressions, attitudes, judgments about objects, events, situations		
3.	Internal Reports—emotions, sensations, mental events, including intents to perform future acts		
4.	Attributions—beliefs about another's internal state, capacity or intents		
5.	Predicting—beliefs about future actions, events, situations		
6.	Explanations—reasons, causes, predictions		
7.	Hypothesizing—attempt to explain assumptions or verifiable future facts		

E. Acknowledgments

1.	Acceptances—neutrally recognize answers or non-requests		
2.	Approval/Agreements—positively recognize answers or non-requests		
3.	Disapproval/Disagreements—negatively evaluates answers or non-requests		

F. Performatives

1.	Role-Plays—establish a fantasy		
2.	Protests—object to listeners previous behavior		
3.	Game-Markers—initiate, maintain, or end a game		
4.	Jokes		
5.	Claims—establish rights by being said ("that's my cookie")		
6.	Warnings—alert listener to impending harm		
7.	Teases—annoy, provoke, taunt		

G. Miscellaneous

1.	Uninterpretable—unintelligible, incomplete, or anomalous utterances		
2.	Exclamations—emotional reactions		

Teacher's Rating Scale
Pragmatic Language Evaluation

Student: _____Teacher: _____Date: _____Grade: _____

(Signature)

Please complete this form based upon observation of your student and return it to the speech-language pathologist. Your observations will help determine whether this student's communication problem is adversely affecting his/her educational performance. This document will be included in the student's final report; thus, it should be completed in ink.

Compared to other students in your class, this student exhibits strengths and weaknesses in the following areas:

	Significant Difficulty	Mild Difficulty	Unsure	Average	Above Average
Nonverbal Communication Skills					
Uses appropriate eye contact	1	2	3	4	5
Understands others' use of body language/ Uses appropriate body language	1	2	3	4	5
Understands and uses appropriate physical space boundaries	1	2	3	4	5
General Conversation Skills					
Basic Social Language:					
a. Greets/Says Goodbye	1	2	3	4	5
b. Uses polite forms (i.e., please, thank you, excuse me, etc.)	1	2	3	4	5
Tells of wants, needs, and preferences	1	2	3	4	5
Asks appropriately for help, assistance, and permission	1	2	3	4	5
Starts and maintains friendships	1	2	3	4	5
Topic Maintenance:					
a. Initiates topic	1	2	3	4	5
b. Joins an on-going conversation appropriately	1	2	3	4	5
c. Maintains topic	1	2	3	4	5
d. Gets to the point	1	2	3	4	5
Provides relevant answers to questions	1	2	3	4	5
Interrupts appropriately	1	2	3	4	5
Gives sufficient information for listener comprehension	1	2	3	4	5
Revises messages when listener misunderstands	1	2	3	4	5
Demonstrates and shares feelings appropriately	1	2	3	4	5
Shares ideas and opinions in a socially appropriate manner	1	2	3	4	5
Understands and uses humor appropriately	1	2	3	4	5

(Chapel Hill-Carrboro City Schools)

Introduction
Pragmatic Language and the Standard Course of Study

This document represents various objectives that address pragmatic language development within the North Carolina Standard Course of Study. The intent is to clarify that teaching staff and related service personnel are responsible for assuring the development of these competencies. Providing instruction in these objectives assures both access to the standard course of study and to functional communication skills that will promote access to other objectives and skills. The variables and objectives identified within this document are taken from Foundations (at the preschool level) and the North Carolina Standard Course of Study (grades k-8). The grade level notes where the performance is expected for students on the standard course of study. It is important to assure that students have mastered prerequisite skills, if at all possible, before you choose a goal at grade level. Also, this document helps to assure that skills that are above grade level are not emphasized inappropriately.

Defining the instructional design and accommodations (visual cues, assistive technology, initial intervention and generalization strategies, etc.) for each objective is the responsibility of the IEP team. This document only outlines objectives at the expected grade level. Some students will use a verbal response, others will use an augmentative device, and others will use a picture or a gesture. With regard to the objective of 'observing turn-taking rules in the classroom (kindergarten),' the instructional design include a turn-taking card to alert the student visually to whose turn it is and to assist the student in responding to the use of this rule. As another example, addressing the 3rd grade objective of 'focusing attention' requires a recognition of the student's level of innate distractibility, processing difficulties in a crowded room, etc. in determining how the student will focus attention and where. Accommodations that address learning style features of the student to assist attention are often crucial to achieving any success with the objective. Accommodations to support 'focusing attention' may require partitioned space, separate space, visual directions, shortened assignments, and/or materials adjusted to enhance interest level.

Pragmatic Language

Preschool

Using one- to two-word utterances to communicate sentence-like meanings to others in the school environment

Uses gestures to request, reject or identify objects/people/animals in a structured play Situation _____

Looks at, point to or give adult object/people/animals named in structured play situation (e.g. name of family member, label for game, manipulates object, etc.) _____

Produces word approximation in imitative, meaningful situation _____

Initiates a one- two-word phrase expressing the following meanings in a structured play setting:

- Rejection (no) _____
- Disappearance (all gone, no) _____
- Cessation of action (stop) _____
- Prohibition of action (no, headshake) _____
- Recurrence (more, again, another) _____
- Noting existence (this, that, it) _____
- Labeling (Mama, doggie, baby, sock) _____
- Actions on objects (give, throw, eat) _____
- Actions involving location (put, up, go) _____
- Descriptions (big, hot, dirty) _____
- Possession (Mama's, doggie's) _____

Responding to and using polite forms (greeting, farewell)

Responds appropriately to greetings and farewells from others _____
Expresses and respond to thank you, you're welcome, excuse me, I'm sorry _____
Asks for help from others appropriately and offer help to others appropriately _____

Producing a variety of assertive and responsive meaningful communicative interactions

Looks at the speaker within 3 seconds when name is called from across a room which includes other people _____

Tells own first name (and last name and age if appropriate) when introduced to unfamiliar adult who asks _____

Responds to request for information _____

Responds to request for action _____

Responds to request for clarification _____

Responds to request for attention _____

Requests information _____

Requests action _____

Requests clarification _____

Requests attention _____

Observing turn-taking rules in the classroom or in social situations

Gives attention when it is requested (eye contact, proximity, body orientation) _____

Gets attention from prospective listener using appropriate verbal and nonverbal cues (including proximity and orientation) _____

Makes one relevant comment about a topic during a conversation _____

Makes two relevant comments about a topic during a conversation _____

Initiates an appropriate verbal exchange with peers or adults _____

Kindergarten

Responding to and using polite forms (greeting, farewell)

Makes and respond to greetings and farewells to and from others _____

Expresses and respond to thank you, you're welcome, excuse me, I'm sorry _____

Asks for help from others appropriately and offer help to others appropriately _____

Responds to and uses polite forms appropriately _____

Observing turn-taking rules in the classroom or in social interactions _____

Faces listeners and speakers with appropriate body proximity _____

Makes one relevant comment about a topic during a conversation _____

Makes two relevant comments about a topic during a conversation _____
Makes two relevant comments about a topic and ask a relevant question during a conversation _____
Observes turn-taking rules in the classroom or other social situations _____

Adapting speech to the listener

Adjusts or modifies language based on the topic _____
Adjusts or modifies language of peer group appropriately _____
Uses the language of peer group appropriately _____
Uses an intelligible rate and appropriate volume of speech _____
Adapts speech to listener _____

First Grade

Recognizing and labeling positive and negative emotions

Identifies and label emotions using photographs and/or role playing _____
Recognizes and label positive and negative feelings in pictures _____

Accurately expressing own feelings through use of words and non-verbal cues

Responds to teasing, anger, disappointment appropriately _____
Expresses positive feelings appropriately _____

Expressing personal ideas, information and experiences

Express personal opinions appropriately _____
Avoids use of repetitive or redundant information _____

Second Grade

Inferring implied requests from statements
Accurately infers implied requests from teacher statements such as, "It's time for lunch". _____

Choosing appropriate topics
Chooses appropriate topics for conversation _____

Using introduction forms
Uses polite forms when introducing others _____

Third Grade

Apologizing, including making steps toward restitution
Uses polite forms of apology, including making steps toward restitution in the apology _____

Focusing attention
Focuses attention when the teacher is speaking, and actively attends to directional words and cues needed for following directions _____

Fourth Grade

Interpreting speaker's non-verbal and verbal messages accurately
Reads and interprets facial cues _____
Reads and interprets body language _____
Reads and interprets tone of voice _____

Interpreting speaker's purposes and/or intent
Matches verbal and nonverbal messages _____
Understands and expresses an argument by:
a. makes inferences _____

b. predicts an outcome _____
c. compares and contrasts _____
d. uses persuasion _____

Using an appropriate tone of voice

Uses an appropriate/polite tone of voice when conversing _____

Signaling changes of conversational topics

Indicates when he/she wishes to change the topic of conversation appropriately _____

Fifth Grade

Elaborating and making judgments about information and ideas presented

Makes three relevant comments related to information presented _____
Determines relevant versus non-relevant information _____
Expresses an opinion _____

Identifying the problem and determining possible solutions

Identifies the problem _____
Gives three possible solutions _____
Determines the best solution _____
Determines consequences _____

Initiating questions to extend conversations (in the context of social scripts)

Initiates questions to extend conversations (in the context of social scripts) _____

Closing conversations and accepting termination of conversations by others

Follows appropriate politeness conventions in order to close conversations smoothly, and accepts termination of conversations by others _____

Sixth Grade

Actively applying listener rules in various situations.

As a listener, demonstrates attention by turning toward and/or looking at speaker and not interrupting _____

As a listener, demonstrates understanding by gesture or verbal cues, or by performing an action related to content of what speaker has said _____

Waits to be acknowledged before speaking _____

Contributing relevant comments in the classroom situation

Responds appropriately to requests for information, action, clarification and/or attention _____

Responds appropriately to requests for more information by extending and elaborating on original message _____

Participates in class discussions/group activities/oral presentations, and waits turn appropriately _____

Seeking clarification as needed

Identifies types of situations in which to ask for clarification _____

Asks for clarification during conversations and class discussion _____

Evaluating the effectiveness of conversational interactions

Talks about conversational interactions and how to improve them _____

Seventh Grade

Interacting appropriately in a group setting

Responds appropriately to comments and questions _____

Offers personal opinions confidently without dominating _____

Gives appropriate reasons that support opinions _____

Solicits and respects another person's opinion _____

Eighth Grade

Interacting appropriately in a group setting

Shares personal reactions to questions raised _____

Gives reasons and cites examples from texts in support of opinions _____

Clarifies, illustrates or expands on a response when asked to do so _____

9th – 12th Grade

See 6th through 8th Grade

Relating Language Behaviors to Communication Goals

Prizant, B. (1999). Enhancing Communicative and socioemotional competence in young children with Autism Spectrum Disorders. Evanston, IL. Conference hand-out

Issues and Challenges	Generic Communication Goals
Prelinguistic Level:	
Establishing intentionality	▪ Establish anticipatory and early intentional behaviors ▪ Communicate intent across environments and persons
Uneven developmental profiles	▪ Establish a consistent means of expressing intent
Communication limitations	▪ Replace idiosyncratic communicative means with more convention and intentional gestures ▪ Expand the range of functions or purposes for communication ▪ Develop motivation and strategies to persist in communication and to repair breakdowns.
Challenging behaviors	▪ Replace unacceptable means with socially acceptable forms
Joint attention and action	▪ Establish reliable means to initiate interaction or bring attention to self
Alternatives to speech	▪ Develop use of AAC systems to communicate intentions

Issues and Challenges	Generic Communication Objectives
Emerging Language Levels:	
Shift from preverbal communication may be slow	▪ Expand vocabulary ▪ Produce intelligible or unambiguous communicative acts (e.g., spoken words, signs, exchanging visual symbols)
Unconventional verbal behavior may be produced for communicative as well as non-communicative purposes	▪ Expand communicative functions ▪ Direct attention to self or secure other's attention prior to communicating (calling function)
Generalization of early creative language and gestalt forms may be slow	▪ Combine words/signs/pictures creatively to express relational concepts
Early language forms are typically used for a limited range of communicative purposes	▪ Combine words/signs/ pictures creatively to express relational concepts ▪ Produce different sentence types to serve different communicative functions ▪ Develop emergent literacy skills
Difficulties comprehending communicative partners' language and nonverbal signs	▪ Use repetition in more conventional ways to express intents ▪ Segment gestalt forms with rule induction, allowing for greater creativity and generativity in language production
More Advanced Language Levels:	
Language comprehension and social-cognitive limitations adversely affect conversational ability	▪ Convey information about past and future events ▪ Use conversational skills and strategies

Issues and Challenges	Generic Communication Objectives
Emerging Language Levels:	
Shift from preverbal communication may be slow	▪ Expand vocabulary ▪ Produce intelligible or unambiguous communicative acts (e.g., spoken words, signs, exchanging visual symbols)
Unconventional verbal behavior may be produced for communicative as well as non-communicative purposes	▪ Expand communicative functions ▪ Direct attention to self or secure other's attention prior to communicating (calling function)
Generalization of early creative language and gestalt forms may be slow	▪ Combine words/signs/pictures creatively to express relational concepts
Early language forms are typically used for a limited range of communicative purposes	▪ Combine words/signs/ pictures creatively to express relational concepts ▪ Produce different sentence types to serve different communicative functions ▪ Develop emergent literacy skills
Difficulties comprehending communicative partners' language and nonverbal sign	▪ Use repetition in more conventional ways to express intents ▪ Segment gestalt forms with rule induction, allowing for greater creativity and generativity in language production
More Advanced Language Levels:	
Language comprehension and social-cognitive limitations adversely affect conversational ability	▪ Convey information about past and future events ▪ Use conversational skills and strategies

Issues and Challenges	Generic Communication Objectives
More Advanced Language Levels: Verbal and nonverbal conventions may be violated, affecting the success of interactions	▪ Use verbal conventions for initiating interaction, exchanging)turns during interactions, and terminating communicative exchanges ▪ Use nonverbal and paralinguistic behavior to support social interactions (e.g., body posture and orientation, eye contact, vocal volume, etc.)
Limited ability to recognize and repair communication breakdowns	▪ Use strategies for repairing communication breakdowns
Learned verbal "scripts" may be applied too rigidly, with few, if any adjustments for different communicative or situational contexts	▪ Use "scripts" specific to particular events)
Unconventional verbal forms used with clear intent may be difficult to "read," especially for unfamiliar partners	▪ Use reading and writing skills for intrapersonal and interpersonal communicative functions
Language use in more complex and less familiar social situations may be especially challenging	▪ Use language as a tool for emotional regulation by: o developing vocabulary to share emotional states and experiences with others o using language to request assistance and comfort (Provide opportunities to review, understand and discuss potentially problematic situations; prepare individuals for changes in routine.)

FUNCTIONAL CATEGORIES OF IMMEDIATE ECHOLALIA

Prizant and Duchan, 1981

Category	Description
Interactive	
Turn-taking	▪ Utterances used as turn fillers in an alternating verbal exchange
Declarative	▪ Utterances labeling objects, actions, or location (accompanied by demonstrative gestures)
Yes-Answer	• Utterances used to indicate affirmation of prior utterance
Request	▪ Utterances used to request objects or others' actions; usually involves mitigated echolalia
Noninteractive	
Non-focused	▪ Utterances produced with no apparent intent, and often in states of high arousal (such as fear, pain)
Rehearsal	• Utterances used as a processing aid, followed by utterance or action indicating comprehension of echoed utterance
Self-Regulatory	▪ Utterances that serve to regulate one' own actions; produced in synchrony with motor activity

Category	Description
Functional Categories of Delayed Echolalia	
Noninteractive (continued)	
Non-focused	▪ Utterances with no apparent communicative intent or relevance to the situational context
Situation Association	▪ Utterances with no apparent communicative intent, which appear to be triggered by an object, person, situation or activity
Self-Directive	▪ Utterances used to regulate one's own actions; produced in synchrony with motor activity
Rehearsal	• Utterances produced with low volume followed by louder interactive production; may be practice for subsequent production
Label (non-interactive)	• Utterances labeling objects or actions in environment with no apparent communicative intent; may be a form of practice for learning language

SOCIOEMOTIONAL DIMENSIONS IN COMMUNICATION
AUTISM QUESTIONNAIRE

Student name_____ Completed by_____ Date _____

SOCIAL RELATEDNESS

Social and communicative motivation

☐ Student typically prefers to be in proximity of others.
☐ Student typically prefers to be alone.
☐ Student responds to and initiates social games and routines.
☐ Student visually orients to others (face to face gaze).
☐ Student regularly uses gaze shifts to reference the attention of others

Frequency of communicative acts directed to adults and other children: _____

Joint attention

☐ Student follows adults' visual line of regard._____
☐ Student observes adults' or other children's activity._____

Student communicates to establish joint attention verbally by *(Check appropriate communicative functions.):*

- ☐ commenting,
- ☐ requesting information, and/or
- ☐ providing information.

☐ Student responds to the preverbal or verbal signals of others to establish shared attention.
☐ Student is able to maintain and follow-up on topics introduced by others (for older students).

Social imitation

□ Student imitates actions with some evidence of social orientation (e.g., gaze checks, sharing of affect, verbal communication).
□ Student imitates vocalizations with some evidence of social orientation.
□ Student imitates verbalizations with some evidence of social orientation.

EMOTIONAL EXPRESSION AND RELATEDNESS

Attachment:

❑ Student uses caregivers as a base for security and emotional "refueling."
❑ After a reasonable period of time, student sees other adults (e.g., teacher, paraprofessional, etc.) as a base of security.

Functional Expression

❑ Student expresses different emotions through facial expression, vocalization, and/or verbalizations that are appropriate to the situational and interpersonal context. (Circle appropriate choices.)
❑ Student shares emotional states by directing affect displays to others.
❑ Student understands and responds appropriately to the emotional expressions of others

Empathy

❑ Student demonstrates concern for or actively attempts to soothe another student who has been hurt or is otherwise in distress.

SOCIABILITY IN COMMUNICATION

Student communicates for the functions of:

❑ Behavioral regulation (i.e., requesting objects/actions, protesting).
❑ Social interaction (i.e., greeting, calling, requesting social routine, requesting comfort).
❑ Joint attention (i.e., commenting, requesting and providing information).

If student communicates primarily for behavioral regulation, this may be indicative of limited sociability in communication.

EMOTIONAL REGULATION AND COMMUNICATIVE COMPETENCE

- ❑ Communicative competence varies significantly with different communicative partners.
- ❑ Communicative competence does not vary significantly with different communicative partners.
- ❑ Communicative competence varies significantly in comfortable, familiar contexts as opposed to unfamiliar emotionally arousing contexts.
- ❑ Communicative competence does not vary significantly in comfortable, familiar contexts as opposed to unfamiliar emotionally arousing contexts.
- ❑ Student demonstrates self-regulatory strategies to modulate arousal.
  Explain: _____
- ❑ Student demonstrates mutual regulatory strategies.
  Explain: _____
  _____
  _____

How does degree of emotional arousal (positive or negative) influence communicative competence (e.g., student withdraws; speech becomes disorganized; student uses developmentally less sophisticated means etc.)? _____
_____
_____

What are the most effective means others can use to help the student modulate extreme states of arousal?
_____
_____
_____

EXPRESSION OF EMOTION IN LANGUAGE AND PLAY

- ❑ Student uses vocabulary to talk about emotional states (self or other).
- ❑ Student uses emotional themes consistently in play, and they are an attempt to understand stressful life events

Additional comments:

Prizant, B. M., and Meyer, E. C. (1993). Socioemotional aspects of communication disorders in young children and their families. American Journal of Speech-Language Pathology, 2, 56-71.

.

EVALUATION OF CLASSROOM LISTENING BEHAVIOR*

Student _____Grade _____ School _____Teacher _____
Completed by _____ Date _____
Type of Amplification _____
Pre-Fitting _____ Post-Fitting _____

1	3	5
SELDOM	**SOMETIMES**	**USUALLY**

_____1. Responds when name is called at close distance (3-6 feet)

_____2. Responds when name is called at a far distance (6-20 feet)

_____3. Attends to a single oral direction

_____4. Attends to a series of oral directions

_____5. Attends to oral instruction

_____6. Comprehends oral instruction in a one to one situation

_____7. Comprehends oral instruction in a group situation

_____8. Comprehends oral instruction in a quiet environment

_____9. Comprehends oral instruction in a noisy environment

_____10. Comprehends oral instruction without visual cues

___/__50 TOTAL SCORE

*Source: "Evaluation of Classroom Listening Behavior" by L. VanDyke. 1985, Rocky Mountain Journal of Communication Disorders.

CLASS PERFORMANCE/LISTENING BEHAVIORS

Use this checklist to document class performance/listening behaviors before a student uses an assistive listening device for a minimum three week observation period. If it is determined that a trial period of using the device is needed, complete this form again after the student has used the device for approximately four weeks.

Student name _____ School _____ Age/Grade _____
Person completing checklist/position _____
Observation dates: from _____ to _____ Date checklist completed _____

Circle to show that observations reflect pre-device and post-device behaviors. Designate if behavior was observed (+) or not observed (−).

___ Instructor has to repeat directions 2 or more times.

___ Instructor has to speak directly to student.

___ confuses words in directions.

___ is frequently off task.

___ has difficulty completing work independently.

___ does not participate in class activities.

___ does not interact with peers.

___ exhibits strained and intense behavior while attending to speaker.

___ exhibits frustration.

___ responds appropriately when classroom noise is above usual level.

___ attends to and responds appropriately when speaker is at a distance.

___ responds in large group as well as small group discussions.

___ follows simple directions.

___ follows direction after repetition.

___ follows direction without waiting for or relying on the responses of others.

___ sustains attention during oral presentations.

___ maintains and adjusts own voice to loudness levels appropriate to the situation.

___ participates in classroom.

___ volunteers answers/comments in class.

___ responds to voice.

Post observation: Do you think this device is a benefit to this student's academic performance? _____ Why or why not? _____
_____
_____

LANGUAGE SEVERITY RATING SCALE
Determination of Language Impairment

Student _____ **School** _____ **Grade** _____ **Date of Rating** _____ **DOB** _____ **Age** ____ **SLT** _____

FORMAL ASSESSMENT Comprehensive, standardized measure(s) and scores:	**0** Standard score* of 78 or above	**2** >1.5 SD below test mean (standard score between 70-77) or 2nd - 6th Percentile	**3** >2 SD below test mean (standard score between 62-69) or 1st –2nd Percentile	**4** >2.5 SD below test mean (standard score below 62) or below 1st Percentile
INFORMAL ASSESSMENT *Check descriptive tools used:* ☐ Language/communication sample ☐ Checklist(s) ☐ Observations ☐ Other: _____	**0** Language skills are within expected range.	*At least one of the following areas are deficient* **2** Check areas of weakness: ☐ Sentence length/complexity ☐ Word order/syntax ☐ Vocabulary/semantics ☐ Word finding ☐ Word form/morphology ☐ Use of language/pragmatics ☐ Auditory perception	*At least two of the following areas are deficient* **3** Check areas of weakness: ☐ Sentence length/complexity ☐ Word order/syntax ☐ Vocabulary/semantics ☐ Word finding ☐ Word form/morphology ☐ Use of language/pragmatics ☐ Auditory perception	*At least three of the following areas are deficient* **4** Check areas of weakness: ☐ Sentence length/complexity ☐ Word order/syntax ☐ Vocabulary/semantics ☐ Word finding ☐ Word form/morphology ☐ Use of language/pragmatics ☐ Auditory perception
FUNCTIONAL/ACADEMIC LANGUAGE SKILLS	**0** Functional/Academic Language skills within expected range.	**2** The student performs effectively most of the time with little or no assistance required.	**3** The student needs more cues, models, explanations, and checks on progress or assistance than the typical student in class	**4** The student does not perform effectively most of the time, despite the provision of general education modifications and supports

Instructions:
1. Do not include regional or dialectal differences when scoring.
2. Circle score for the most appropriate description for each category: *Formal (Standardized) Assessment* and the *Informal (Descriptive) Assessment.*
3. Compute the total score and record below.
4. Circle the total score on the bar/scale below to determine the severity rating.

0 | 2 3 | 4 5 6 | 7 8 9 10 11 12
No Disability — Mild — Moderate — Severe

TOTAL SCORE _____

Based on compilation of the assessment data, this student scores in the *Mild, Moderate* or *Severe* range for a Language Disability. ____Yes ____No

There is documentation/supporting evidence of adverse effects of the Language Disability on educational performance. ____Yes ____No
(BOTH STATEMENTS ABOVE MUST BE CHECKED YES)

***Determination of eligibility as a student with Speech and/or Language Impairment is made by the IEP team.**

**Standard scores are based on a mean of 100 and a standard deviation of 15. The standard score can be a receptive, expressive or total language quotient.*

SPEECH SOUND PRODUCTION (Articulation & Phonological Processes)

SPEECH SOUND PRODUCTION CONSIDERATIONS

An articulation impairment is the "atypical production of speech sounds…that may interfere with intelligibility" (ASHA, 1993, p. 40). Problems with sound production result from *organic* (a known physical cause) or *functional* (no known physical cause) etiologies. Organically based production errors may be related to hearing impairment, cleft lip or palate, cerebral palsy, ankyloglossia (tongue-tie) and others. The accompanying articulation deficits are the direct result of structural or neurologic anomalies and are not developmental in nature. Children with functional sound production problems present with adequate hearing acuity and intellectual abilities. They show no signs of significant structural abnormalities or neurological dysfunction. The specific errors vary from one child to the next and are not as readily predictable as those found in organically based disorders.

The IEP team may not identify a child as speech impaired who exhibits any of the following:

- mild, transitory or developmentally appropriate sound production difficulties that students experience at various times and to various degrees;
- speech difficulties resulting from dialectal differences, learning English as a second language, temporary physical disabilities or environmental, cultural or economic factors;
- a tongue thrust which exists in the absence of a concomitant impairment in speech sound production;
- elective or selective mutism or school phobia without a documented speech sound production impairment; and
- the errors do not interfere with educational performance.

Production of sounds in connected speech is a series of complex maneuvers. Oral communication requires exact placement, sequencing, timing, direction and force of the articulators. These occur simultaneously with precise airstream alteration, initiation or halting of phonation and velopharyngeal action. Consequently, assessment of speech sound production is a multi-faceted procedure requiring a good deal of skill and knowledge.

CONDUCTING A SPEECH EVALUATION FOR ARTICULATION OR PHONOLOGICAL PROCESSES

- Conduct hearing screening.
- Obtain relevant information from the parents.
- Obtain information from teachers related to progress in the general curriculum, communication skills, behavior and social interactions. Information may be gathered from educators: these educators may include the student's classroom teacher as well as another professional (*Teacher Input-Articulation* form—Appendix E). For preschoolers, obtain this information from child care providers or adults who see the child outside the family structure.

- Review school records, e.g., grades, test scores, special education records, documentation of pre-referral strategies/interventions and discipline and attendance records.
- Complete an oral-peripheral mechanism examination.
- Administer an articulation test and/or a test of phonological processes. If a preschooler is unable to participate in assessment using standardized measures, document the attempt and obtain a phoneme inventory from a speech sample.
- Conduct stimulability probes to determine how well the student can imitate correct production of error sounds. Stimulability refers to the student's ability to produce a correct (or improved) production of the erred sound given oral and visual modeling. Most articulation tests include this step on the test form.
- Obtain and analyze a speech sample to determine intelligibility of conversational speech and consistency of error patterns. (Refer to norms of dialectal patterns and resources for ELL and assessment guidelines).
- Document how sound production errors adversely affect the student's educational performance in the general education classroom or the learning environment
- Finalize and submit to the IEP team a *Speech and Language Evaluation Report* and/or appropriate DEC form.

COMPONENTS OF THE ASSESSMENT

Articulation or Phonological Processes Assessment

Generally, errors in sound production are classified as either motor-based or cognitive/linguistic-based (Bernthal and Bankson, 1988).

- Articulation Errors

  Articulation errors (substitutions, distortions, omissions, and/or additions) are typically considered motor-based errors. Articulation, which refers to the actual movements of the articulators during speech production, is subsumed under the generic term phonology. An articulation problem may be defined as difficulty in producing a single or a few sounds with no pattern or derivable rule. It is considered to be the result of phonemic, rather than phonological, inadequacy (i.e., the problem results from the student's not having "learned" all of the sounds). Articulation testing is concerned primarily with identifying those sounds that the student has difficulty producing. Intervention is focused on correcting individual error sounds, one by one.

- Phonological Process Deviations

  Phonological process deviations are considered to be cognitive/linguistic-based. Students with phonological process problems demonstrate difficulty in acquiring a phonological system, not necessarily in production of the sounds. The phonological system of a language governs the ways in which sounds can be combined to form words. A phonological process is a systematic sound change that affects classes of sounds or sound sequences and results in a simplification of production. Errors have logical and

coherent principles underlying their use. The errors can be grouped on some principle and thus form patterns. The student's patterns of "simplification" of sound usage severely affect intelligibility. In contrast to articulation testing, phonological assessment is concerned not only with production skills, but also with the way sounds are sequenced and used contrastively to signal meaning differences. Philosophy, assessment and method of intervention addressing phonological processes must necessarily differ markedly from traditional approaches to either functional or organic articulation problems. The goal of phonological intervention is not to perfect individual sounds, but rather to eliminate phonological processes. It aims at a reorganization of the student's phonological system, thereby improving intelligibility.

Some SLPs as well as some of the professional literature classify phonological process errors as a language-based impairment. However, for purposes of these guidelines, phonological process errors are included, along with articulation errors, under the category of *Speech Sound Production.* The decision to administer an articulation test versus a phonological process analysis is based on the examiner's professional judgment. If the errors are non-organic (i.e., not due to structural deviations or neuromotor control problems) the most discriminating factor to aid in the decision is that of ***intelligibility –*** the more unintelligible the student's speech, the greater the need for phonological process analysis. When evaluating students whose intelligibility factor is moderate to severe or profound, tests of phonological processes will prove more diagnostically valuable than traditional articulation tests.

A list of *Articulation Tests and Phonological Process Assessments* is included in Appendix I. An articulation assessment and phonological process analysis can be derived without the use of a published standardized assessment instrument.

Developmental Information/Profile

Norms are helpful for estimating approximately how well a student's sounds are developing. Although norms are extremely useful, there are limitations to over-relying on or using them exclusively to identify a sound production impairment.

Appendix contains several developmental charts depicting normal articulation/phonological development. Each LEA should choose charts that appropriately reflect their population.

Phonological Processes

The following are ***minimal requirements*** for qualifying a sound change error as a phonological process:

1. A process must affect more than one sound from a given sound class. For example, the omission of [t] from the end of words does not necessarily signal the process of final consonant deletion. Deletion of at least one additional plosive [p, b, d, k, g] must also be observed.
2. The sound change or process must occur at least 40% of the time. An inconsistent

sound change indicates only a potential phonological process. In other words, if the student uttered ten words containing final consonants, s/he must delete the consonant in at least four of those words in order for the pattern to be considered as that of final consonant deletion. An inconsistent sound change may also signal that the student is in a transition phase of development, i.e., the student is gradually eliminating the process on his/her own as sound productions become more developmentally appropriate.

Stimulability Probe of Errors

Stimulability refers to the student's ability to produce a correct or improve production of the erred sound given oral and visual modeling.

The assessment of stimulability provides important prognostic information. Moreover, those behaviors that are most easily stimulated can provide excellent starting points for intervention. They often lead to intervention success quicker than other, less stimulable behaviors.

INTERPRETING AND REPORTING EVALUATION RESULTS

- *Sound Development Norms* chart– The cut-off point is one year beyond the reported age of acquisition for each sound position.
- All other developmental norms or charts – The cut-off point is the exact age as reported for each phoneme.

There are many factors that can negatively influence intelligibility, including:

- *Number of errors*
- *Types of sound errors*
- *Inconsistency of errors*
- *Vowel errors*
- *Rate of speech*
- *Atypical prosodic characteristics of speech*
- *Length and linguistic complexity of the words and utterances used*
- *Student's anxiety about the testing situation and/or fatigue*

Analysis of Errors

- *Error Types* – The types of errors identified by traditional articulation tests generally fall into four major categories: (1) Substitutions (2) Omissions (3) Distortions, and (4) Additions. Typically, the presence of omissions and additions affect intelligibility to a greater degree than substitutions and distortions. In addition to providing descriptive information as to the problem, analyzing error types also helps to select, prioritize and plan intervention targets.

- *Form of Errors/Error Patterns* – An inventory of phonological processes is most valuable when evaluating students who have poor speech intelligibility due to multiple articulation errors. Phonological processes describe what children do in the normal developmental process of speech to simplify standard adult productions. When a student uses many different processes or uses processes that are not typically present for his/her developmental age, intelligibility will be affected. The following list of error patterns is arranged in descending order from most to least effect on intelligibility.

Beginning of Word	End of Word
Fronting	Final Consonant Deletion
Initial Voicing	Fronting
Stopping	Word Final Devoicing
Custer Reduction	

- *Consistency of Errors* – The assessment data and/or speech sample should be analyzed for consistency of errors between the speech sample and the articulation test/phonological process assessment within the same speech sample and between different speech samples. A student may be able to produce a designated sound correctly at the single word level, yet correct productions may break down as the length and complexity of utterances increase. Typically, more sound errors will be identified during the connected speech sample.
- *Frequency of Occurrence* – Frequency of occurrence refers to the relative frequency or percentage of occurrence of a sound in continuous speech. It should be noted that the sounds [n**,** t**,** **s,** r, d, and m], cumulatively represent nearly one-half of the total consonants used. When misarticulated, these sounds will have a greater negative effect on speech intelligibility than the less frequently occurring sounds such as /zh/, /ch/, /j/, and voiceless /th/.

Rate of Speech

Occasionally a student's speech rate can directly affect articulation and intelligibility. The average rate of speech is 125 words per minute to 142 words per minute (Purcell & Runyan, 1980).

Useful Forms for Assessment of Articulation and Phonological Processes

For articulation norms it is recommended that LEA's adopt the set that is most appropriate for their population.

Speech Impairments

Speech impairments encompass disorders in:

Speech Sound Production
(articulation and phonological processes)

Voice
Fluency

Oral Peripheral Mechanism Examination

The purpose of the oral-facial examination is to identify or rule out structural or functional factors that relate to speech impairment. Diadochokinetic rates, which measure a student's ability to produce rapidly alternating articulatory movements, may also be assessed.

Several common areas to assess during an oral peripheral examination are: face, lips, tongue, palate, weak or absent gag reflex, mouth breathing, and poor intraoral pressure.

Teacher's Rating Scale
Articulation Evaluation

Student:_____Teacher:_____Date:_____Grade: _____
(Signature)

Please complete this form based upon observation of your student's speech production over the past month and return it to the speech-language pathologist. Your observations will help determine whether this student's communication problem is adversely affecting his/her educational performance. This document will be included in the student's final report; thus, it should be completed in ink.

	Severe Difficulty	Moderate Difficulty	Mild Difficulty	Average	Above Average
1. Classroom Participation Initiates conversations, answers questions, volunteers to respond verbally	1	2	3	4	5
2. Intelligibility Is readily understood and does not need to repeat verbal responses frequently	1	2	3	4	5
3. Reaction of Peers to Speech Errors Peers are accepting of speech errors.	1	2	3	4	5
4. Reaction of Adults to Speech Errors Teachers and other adults interact with and/or call on the student despite speech characteristics.	1	2	3	4	5

5. Please show evidence of speech errors impacting academic functioning:
(Work samples are welcome.)

a. Reading

b. Spelling

c. Writing

d. Class Discussions/Presentations

(Chapel Hill-Carrboro City Schools)

Teacher Input—Speech Sound Production

Student: _____ School: _____Teacher: _____ Grade: _____

Your observations and responses concerning the above student will help determine if a sound production problem which adversely affects educational performance. Please return the completed form to the speech and language pathologist.

	Yes	No	Sometimes	N/A
1. Is this student's intelligibility reduced to the extent that you find it difficult to understand him/her? If Yes, check appropriate description: _____ Occasional Difficulty _____ Frequent Difficult _____ Considerable Difficult	___	___	___	___
Student's speech is ___ % intelligible even though some sound errors may be present. Check one.		__50%		
	__25%	__50% __70%	__80%	__90% __100%
2. Does this student appear frustrated or embarrassed because of his/her production errors?	___	___	___	___
3. Does the student avoid speaking in class or in other situations because of his/her production errors?	___	___	___	___
4. Has this student ever expressed concern about his/her production errors?	___	___	___	___
5. Does the student's speech distract listeners from what the student is saying?	___	___	___	___
6. Does the student have age-appropriate awareness of sounds in words and ability to rhyme, segment, and manipulate sounds in words?	___	___	___	___
7. Does the student make the same errors when reading aloud as s/he does when speaking?	___	___	___	___
8. Does the student have difficulty discriminating sounds and/or words from each other?	___	___	___	___
9. Does the student make spelling errors that appear to be associated with speaking errors?	___	___	___	___
10. Does the student self-correct articulation errors?	___	___	___	___
11. Does the student have reading problems due to articulation problems?	___	___	___	___
12. Does the student mispronounce during reading of words containing error sounds?	___	___	___	___
13. Rate the impact of the student's speech errors on his/her social, emotional, academic and/or vocational functioning. Check one: __ does not interfere __minimal impact __ interferes __seriously limits				

Do you have any other observations relating to the articulation skills of this student? _____
_____

It is my opinion that these behaviors:
____ ***Do no***t adversely affect educational performance
____ ***Do*** adversely affect educational performance

_____ _____
Classroom Teacher Signature Date

Comments: _____

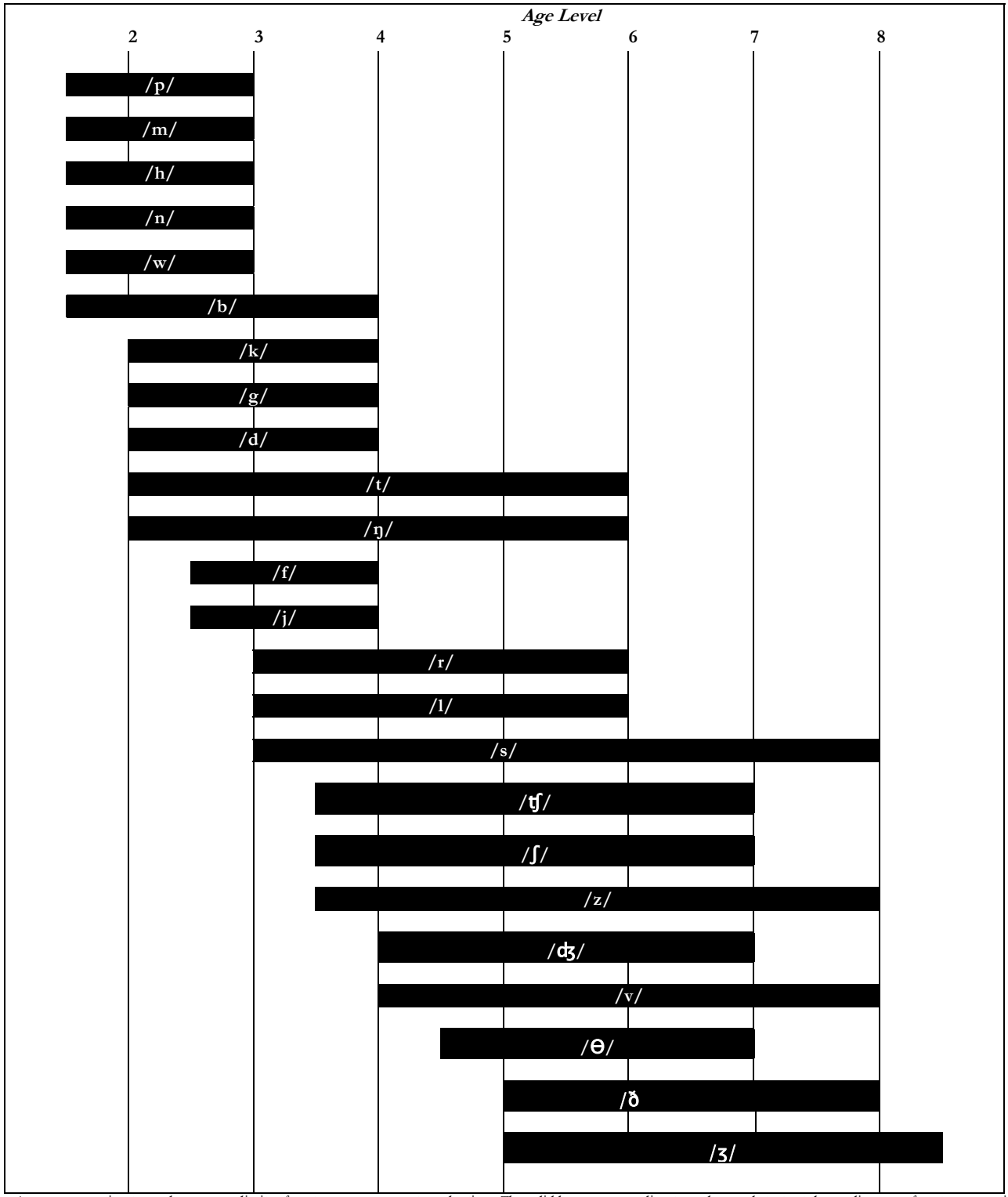
EXAMINATION OF ORAL PERIPHERAL MECHANISM

Name: _____ Date: _____ Examiner: _____

1. **Facial Appearance** _____
2. **Lips**
   - Appearance _____
   - Habitual posture Closed_____ Parted_____
   - Mobility Press_____ Purse_____ Retracts_____
3. **Jaw Mobility** Sufficient_____ Insufficient_____ Excessive_____
4. **Tongue**
   Appearance at rest: _____
   Size Appropriate_____ Too large_____ Too small_____
   Protrusion_____ Tremors_____ Deviation_____
   Mobility Elevation_____ Lateralization_____ Licks lip with tongue_____
   Lingual Frenum_____ Moves independently with jaw_____
   Sweeps palate from alveolar ridge_____
5. **Palate**
   Appearance of hard palate_____ Length of soft palate_____
   Mobility_____ Gag Reflex_____
   Closure evidently complete_____
   Uvula: _____ Length _____ Mobility _____ Bifid _____
6. **Diadochokineses**
   Papapa – (avg. =3-5 ½) _____ kakaka – (avg. = 3 ½ - 5 ½) _____
   Tatata – (avg. =3-5 ½) _____ putuku – (avg. = 1-1 ¾) _____
   (Below=less than 1 per sec.) _____
   (Above=more than 1 per sec.) _____
   (See instructions for assessment of diadochokinetic rate.)
7. **Tongue Thrust**
   Does s/he swallow with teeth apart? Yes_____ No_____
   Can you see the tongue when s/he swallows? Yes_____ No_____
   If s/he swallows with the lips closed,
   can you see tensing of the chin? Yes_____ No_____
8. **Dental observations** Spacing_____ Missing teeth_____
   Alignment: normal_____ misaligned_____ spaced_____
   Condition: good_____ slight decay_____ moderate decay_____ excessive decay_____
   Occlusion : normal_____ overjett_____ edge to edge_____ crossbite_____
9. **Breathing** Mouth breather? Yes_____ No_____
   Other deviations noted: _____
   _____
10. **Comments** _____
    _____

_____

AGE RANGES OF NORMAL CONSONANT DEVELOPMENT[1]



Average age estimates and upper age limits of customary consonant production.. The solid bar corresponding to each sound starts at the median age of customary articulation; it stops at age level at which 90% of all children are producing the sound (data from Templin, 1957; Wellman et al., 1931). From E. Sander (1972), "When Are Speech Sounds Learned? Journal of Speech and Hearing Disorders, 37, 55-63.

[1]Assessment in Speech-Language Pathology CD ROM. Copyright © 1998 by Singular Publishing Group.

SOUND DEVELOPMENT CHART—MALES

Listed below are the recommended ages of acquisition for phonemes and clusters, based generally on the age at which 90% of the children correctly produced that sound. These recommended ages are for phonetic acquisition only.

Phoneme	**yrs:mo**	**3:0**	**3:6**	**4:0**	**4:6**	**5:0**	**5:6**	**6:0**	**6:6**	**7:0**	**7:6**	**8:0**	**8:6**	**9:0**
m														
h initial														
w initial														
p														
b														
n														
d														
f														
k														
t														
g														
j initial														
f final														
v														
l														
sh														
ch														
l final														
th voiced														
dz														
th														
r														
r final voiced														
ng final														
s														
z														
Word-initial clusters		**3:0**	**3:6**	**4:0**	**4:6**	**5:0**	**5:6**	**6:0**	**6:6**	**7:0**	**7:6**	**8:0**	**8:6**	**9:0**
tw kw														
pl bp kl gl fl														
pr br tr dr kr gr fr														
sp st sk														
sm sn														
sw														
sl														
skw														
spl														
spr str skr														
thr														

Source: Iowa-Nebraska Articulation Norms.

SOUND DEVELOPMENT CHART—FEMALES

Listed below are the recommended ages of acquisition for phonemes and clusters, based generally on the age at which 90% of the children correctly produced that sound. These recommended ages are for phonetic acquisition only.

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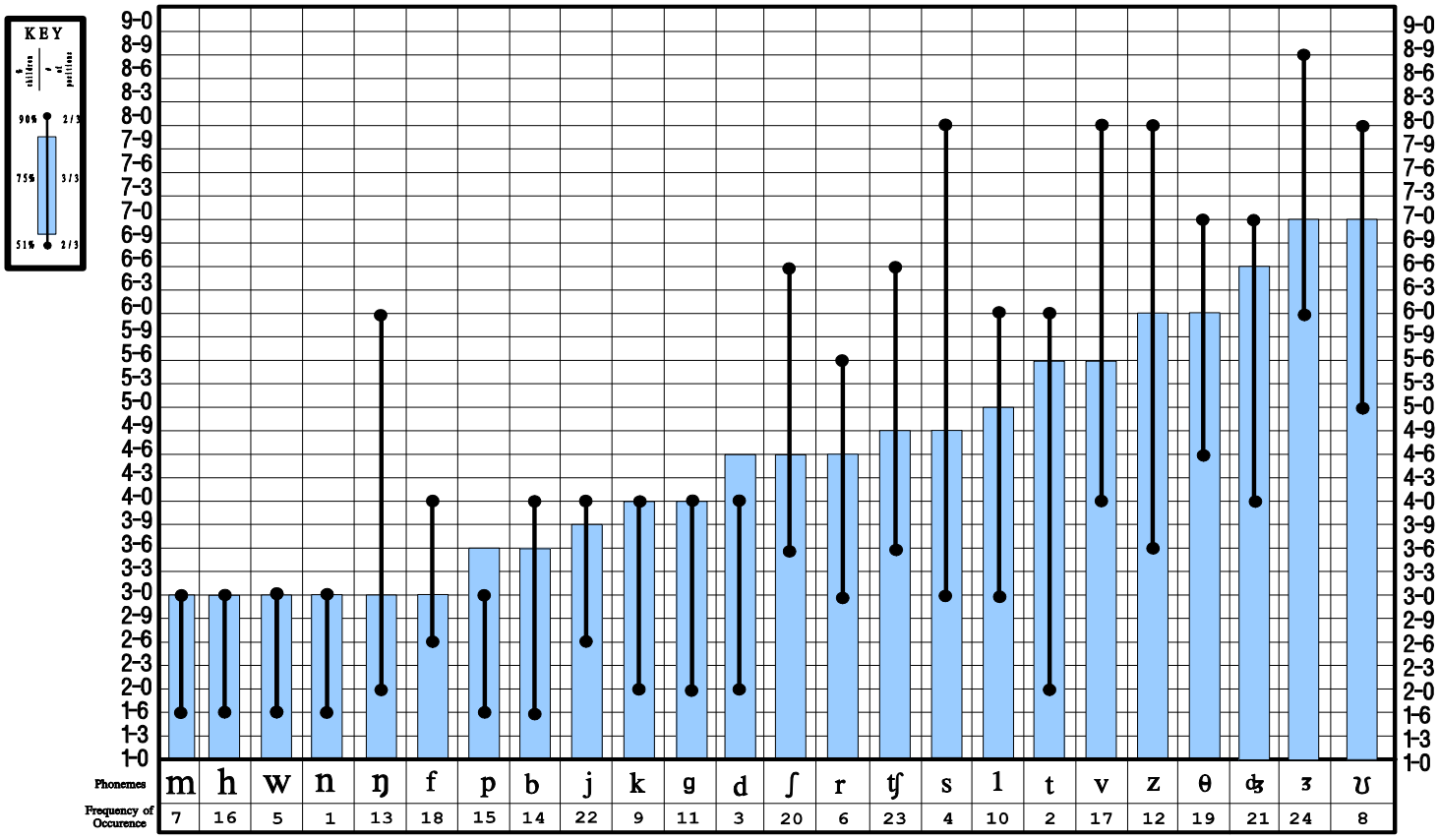
Phoneme	**yrs:mo**	**3:0**	**3:6**	**4:0**	**4:6**	**5:0**	**5:6**	**6:0**	**6:6**	**7:0**	**7:6**	**8:0**	**8:6**	**9:0**
m														
h initial														
w intial														
p														
b														
d														
f														
k														
g														
n														
j initial														
t														
th voiced														
l														
f final														
v														
sh														
ch														
l final														
th														
dz														
r														
r final voiced														
ng final														
s														
z														

Word-initial clusters	**3:0**	**3:6**	**4:0**	**4:6**	**5:0**	**5:6**	**6:0**	**6:6**	**7:0**	**7:6**	**8:0**	**8:6**	**9:0**
tw kw													
pl bp kl gl fl													
pr br tr dr kr gr fr													
sp st sk													
sm sn													
sw													
sl													
skw													
spl													
spr str skr													
thr													

Source: Iowa-Nebraska Articulation Norms

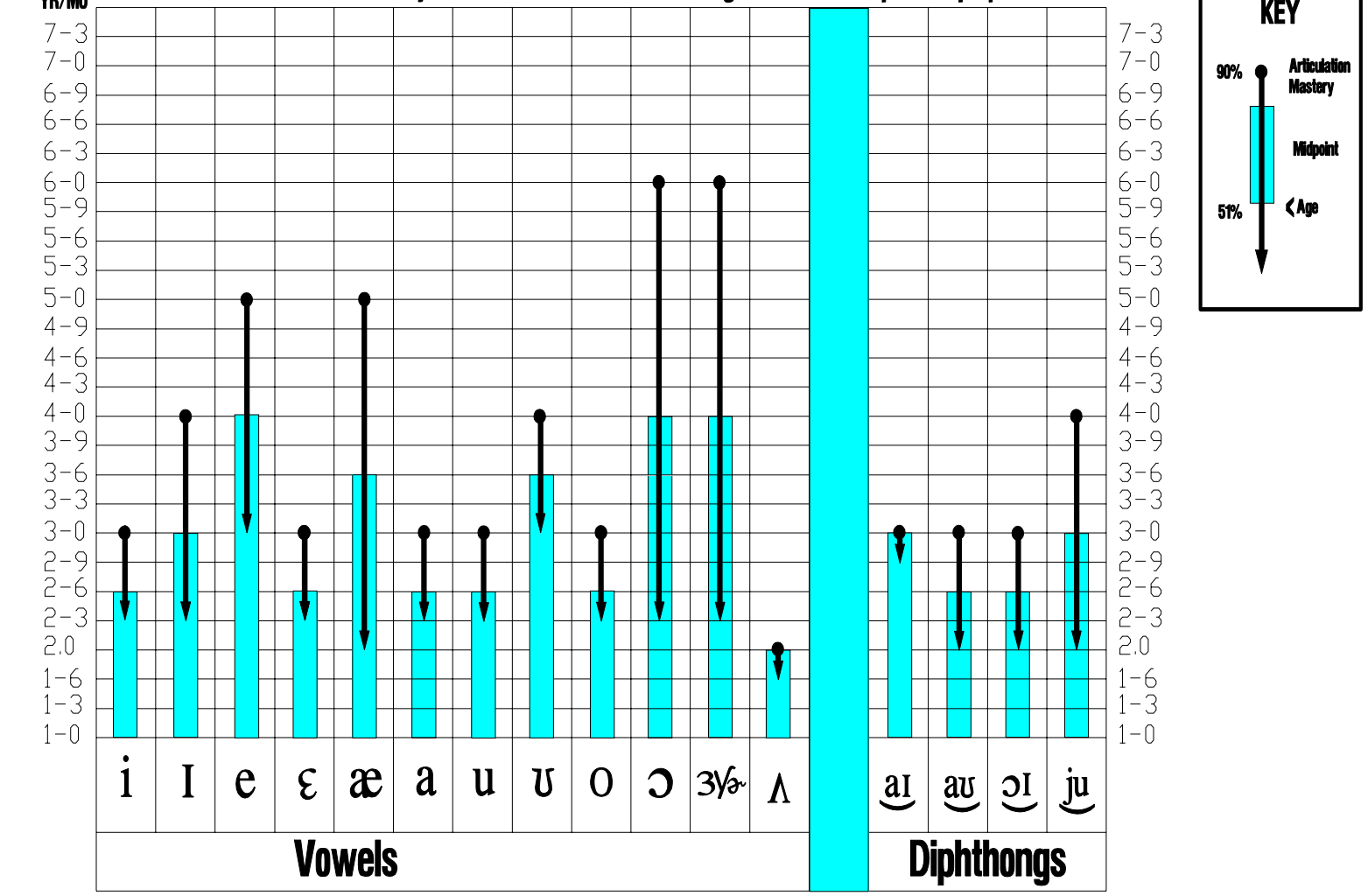
Consonant Development Chart

Instructions: Draw a heavy horizontal line at the childs level for comparison purposes.



Vowel Development Chart

Instructions: Draw a heavy horizontal line at the child's age level for comparison purposes.



SOUND DEVELOPMENT NORMS

AGE	INITIAL POSITION	MEDIAL POSITION	FINAL POSITION
2	/b/, /d/, /h/, /m/, /n/, /p/	/b/, /m/, /n/	/m/, /p/
3	/f/, /g/, /k/, /t/, /w/	/f/, /g/, /k/, /ŋ/, /p/, t/	/b/, /d/, /g/, /k/, /n/, /t/
4	/kw/	/d/	/f/
5	/ʧ/, /ʤ/, /l/, /s/, /ʃ/, /l/, /bl/	/ʧ/, /ʤ/, /l/, /s/, /ʃ/, /z/	/l/, /ŋ/, /ʧ/ /ʤ/ /s/, / ʃ/ /r/, /v/, /z/
6	/r/, /v/, /br/, /dr/, /fl/, /fr/, /gl/, /gr/, /kl/, /kr/, /pl/, /st/, /tr/	/r/, /v/	
7	/z/, /sl/, /sp/, /sw/, /ŏ/, /ɵ/	/ŏ/	/ɵ/
8		/ɵ/	

This information was obtained from the *Goldman-Fristoe Test of Articulation-2*. The data is based on the age at which 85% of GFTA-2 standardization sample correctly produced consonant and consonant cluster sounds. The above data includes the 38 consonants and consonant clusters assessed in the Sounds-in-Words portion of the GFTA-2.

Note: Sound productions are significantly delayed if not acquired a year beyond the stated age for a particular phoneme.

PHONOLOGICAL PROCESSES

Definition: Systematic changes that affect entire phoneme classes or phoneme sequences. These changes are age appropriate up to the ages listed below.

Ages		
	DELETIONS	
2	1. Initial Consonant Deletion	at/hat
3	2. Final Consonant Deletion	no/noze
4	3. Consonant Cluster Reduction	tap/stop (deleting one or more)
	SUBSTITUTIONS	
3 ½ – 5	1. Stopping	ton/sun dus/juice
3	2. Voicing/Devoicing	die/tie crip/crib
3 – 6	3. Gliding	ju/shoe wef/leaf weed/read
4 – 5	4. Fronting/Backing	dum/gum sue/shoe/ cop/top
5 – 6	5. Affrication/Deaffrication	chew/shoe ship/chip
	ASSIMILATION	
3 – 4	1. Progressive	beb/bed dod/dog
3 – 4	2. Regressive	lellow/yellow fwim/swim
or		
3	3. Velar Assimilation	gog/dog
3 – 4	4. Labial Assimilation	beb/bed fwim/swim
4	5. Alveolar Assimilation	lellow/yellow dod/dog
3	6. Nasal Assimilation	neon/pencil
	OTHER (infrequent)	
3 – 4	1. Vocalization (vowelization)	bado/bottle ka/cartefon/telephone
4	2. Weak Syllable Deletion	asks/ask
7	3. Transposition (Metathesis)	mud/mother
5	4. Vowel Naturalization	op/stop k/cats
2	5. CC Deletion	wawa/water d du/thank you
2	6. Reduplication	

Bennett (11/85: 9/87) Adapted from Hodson (1980); Ingram (1981); Shribert & Kwiakowski (1981); Kahn (1982

PHONOLOGICAL PROCESSES

Phonological Process	Description	Example	Developmental Information
A. Syllable Structure Processes 1. Deletion of Final Consonant	Reduction of CVC words or syllables to CV form, not usually sound specific	book → /b ð/	Children who are developing language normally will begin to include final consonants by age 3[1].
2. Cluster Reduction	Simplification of clusters of consonants usually by deleting the one that is most difficult to produce	tree → /ti/	Most children (90%) do not use cluster reduction after age 4.[1]
3. Weak Syllable Deletion	Deletion of unstressed syllables	telephone→ /t fon/	Process does not exist in speech of normally developing children beyond age 4[1]
4. Glottal Replacement	Replacement of final consonant of a syllable, usually in the intervocalic position, by a glottal stop; may mark the place of a consonant that is deleted.	kitchen→ /kiʔənɲ/	
B. Harmony Processes 1. Labial Assimilation	Substitution of a labial phoneme for a non-labial phoneme due to influence of a dominant labial phoneme contained within the word	thum→ /wʌm/	
2. Alveolar Assimilation	Substitution of a phoneme which is produced with alveolar placement for a non-alveolar phoneme due to influence of a dominant alveolar phoneme within the word	yellow→ /lɛlo/	
3. Velar Assimilation	Substitution of a phoneme which is produced with velar placement for a non-velar phoneme due to influence of a dominant velar phoneme within the word	dog→ /gɔg/	
4. Prevocalic Voicing	Substitution of a voiced stop for its voiceless cognate due to influence of the following vowel	pig→ /big/	
5. Final Consonant Devoicing	Substitution of a voiceless stop for its voiced cognate due to influence of the silence following the word	bed→ /bɛt/	Devoicing of final consonants does not occur after age 3 in normal phonological development[1]

Source: From Speech *and Language Services in Michigan: Suggestions for Identification, Delivery of Service and Exit Criteria*, edited by Elizabeth Loring Lockwood and Kathleen Pistano. East Lansing: the Michigan Speech-Language-Hearing Association 1991. Used with permission

[1]Phonological Disability in Children cited by Linda M. Laila Khan. "A Review of 16 Major Phonological Processes." Language, Speech, and Hearing Services in Schools. (April 1982). pp. 77-85.

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PHONOLOGICAL PROCESSES

Phonological Process	Description	Example	Developmental Information
C. Feature Contrast Processes 1. Stopping	Substitution of a stop for a fricative	sun → /tʌŋ/	
2. Affrication	Substitution of affricatives for fricatives: usually occurs more often with sibilant fricatives than others	sun→ /tsʌŋ/	Most fricatives should be correctly produced by age 4.[1]
3. Fronting	Substitution of phonemes by others which are produced anterior to the target phonemes; occurs commonly with velar stops	wagon→ /wadn/	Reported to no longer be evident by age 4 in normally developing children.[1]
4. Gliding of Fricatives	Substitution of glides for fricative phonemes	soap→ /jop/	
5. Gliding of Liquids	Substitution of /w/, and /j/ for l/l or /t/, simplification process	red→ /wed/	Majority of children reported to produce correct liquids by age 4.[1]
6. Vocalization	Substitution of vowels for syllable consonants, most frequently /ʊ/ and /o/	table→ /tebo/	Syllabics are usually acquired by age 4[1].
7. Denasalization	Substitution of stops for nasals; usually affects word-initial and word-medial nasals more than word-final nasals	smoke→ /bok/	

[1]Natural Process Analysis. cited by Linda M. Laila Khan, "A Review of 16 Major Phonological Processes." Languag, Speech, and Hearing Services in Schools. (April 1982). pp. 77-85

SPEECH SOUND PRODUCTION SEVERITY RATING SCALE
Determination of Speech Impairment: Articulation

Student _____ **School** _____ **Grade** _____ **Date of Rating** _____ **DOB** _____ **Age** _____ **SLT** _____

Sound Production	**0** No sound/phonological process errors; errors consistent with normal development.	**1** Sound errors/ phonological processes less than one year below age	**3** Sound errors/phonological processes one to two years below age	**4** Sound errors/phonological processes two or more years below age
Stimulability	**0** Most errors stimulable in several contexts	**1** Most errors stimulable in at least one context	**2** Although not correct, most errors approximate correct production	**4** No error sounds are stimulable for correct production
Oral Motor and/or Motor Sequencing	**0** Oral motor and/or sequencing adequate for speech production	**0** Oral motor and/or sequencing difficulties are minimal and do not contribute to speech production problems	**3** Oral motor and/or sequencing difficulties interfere with speech production	**4** Oral motor and/or sequencing greatly interfere with speech production, use of cues, gestures or AD needed
Intelligibility	**0** Connected speech is intelligible	**2** Connected speech is intelligible; some errors noticeable; more than 80% intelligible	**4** Connected speech sometimes unintelligible when context is unknown; 50-80% intelligible	**6** Connected speech mostly unintelligible; gestures/cues usually needed; less than 50% intelligible

Instructions:
1. Do not include regional or dialectal differences when scoring.
2. Circle the score for the most appropriate description for each of the four categories, i.e., *Sound Production*, *Stimulability*, *Oral Motor*, *Intelligibility*.
3. Compute the total score and record below.
4. Circle the total score on the bar/scale below.

Note: Disability standards for Phonological Processing require ratings at the Moderate, Severe, or Profound Levels of Severity.

3 4 5 6 7 8 | 9 10 11 12 13 | 14 15 16 17 18

Mild **Moderate** **Severe to Profound**

TOTAL SCORE _____

Based on compilation of the assessment data, this student scores in the *Mild*, *Moderate* or *Severe* range for Speech Sound Production. ____Yes ____No
There is documentation/supporting evidence of adverse effects of the Speech Sound Production on educational performance. ____Yes ____No
(BOTH STATEMENTS ABOVE MUST BE CHECKED YES)
***Determination of eligibility as a student with a Speech and/or Language Impairment is made by IEP Team.**

FLUENCY

FLUENCY ASSESSMENT CONSIDERATIONS

Fluency is a speech pattern which flows in a rhythmic, smooth manner. Dysfluencies are disruptions or breaks in the smooth flow of speech. Even speakers who are normally fluent experience dysfluencies. A speaker is dysfluent when unintentionally repeating a sound, word or phrase, prolonging a sound, or experiencing a block of airflow/phonation. It is the speech-language pathologist's responsibility to differentiate between normal dysfluencies and a fluency disorder (Shipley & McAfee, 1998). Stuttered-like dysfluencies may include repetitions, prolongations and/or blocks while nonstuttered dysfluencies may include stater sounds/words, insertions of sounds, revisions, etc.

CONDUCTING A SPEECH EVALUATION FOR FLUENCY

- Conduct hearing screening.
- Obtain relevant information from the parents: concerns about communication skills, developmental history, etc.
- Obtain information from teachers related to progress in the general curriculum, communication skills, behavior, and social interactions. General curriculum for preschoolers is developmentally appropriate activities.
- Review school records, e.g. grades, test scores, special education files, documentation of pre-referral strategies/interventions, and discipline and attendance records.
- Complete an oral-peripheral mechanism examination .
- Measure fluency using formal/informal assessments for frequency, descriptive assessment and speaking rate .
- Finalize and submit to the IEP team a *Speech and Language Evaluation Report* and/or the appropriate DEC form .

Fluency Measurement Considerations

The following describes procedures that may be used to analyze:

- frequency of stuttering,
- severity/type of stuttering,
- duration of stuttering,
- rate of speech,
- speech naturalness,
- coping mechanisms, and
- covert stuttering behaviors.

INTERPRETING AND REPORTING EVALUATION RESULTS

The student exhibits dysfluencies during connected speech in at least one of the following areas, with accompanying adverse effect on educational performance:

1. Frequency and/or durational measurements of dysfluencies in 1 or more settings:
   a) more than 2% atypical dysfluencies, with or without the presence of struggle behaviors; ***or***
   b) more than 5% atypical dysfluencies, with or without the presence of struggle behaviors, covert stuttering behaviors or coping mechanisms, or with the presence of one or more risk factors.

2. Rate of speech at least $\pm$ 1.5 standard deviations from the mean.
3. Speech naturalness outside the normal range of 3.0 for children and 2.12-2.39 for adolescents/adults on a 9-point naturalness rating scale.

USING THE FLUENCY SEVERITY RATING SCALE

The *Fluency Severity Rating Scale* is to be used as a tool after a complete assessment of the student's fluency performance. The scale is designed to assist the examiner with interpretation and documentation of the results of assessment findings in terms of severity or intensity. This scale is not a diagnostic instrument and should not be used in the absence of assessment data.

In order to be identified as a student with a speech impairment with fluency difficulties, dysfluencies must be determined to have an "adverse effect on educational performance." The rating scale serves three purposes:

1. to document the presence of dysfluent behaviors and their degree (mild, moderate, severe),
2. to indicate the absence or presence of adverse effects on educational performance, and
3. to determine whether or not the student meets eligibility standards for a speech impairment in fluency.

"Educational performance" refers to the student's ability to participate in the educational process and must include consideration of the student's social, emotional, academic and vocational performance. The presence of speech dysfluencies does not automatically indicate an adverse affect on the student's ability to function within the educational setting. The dysfluencies must be shown to interfere with the student's ability to perform in the educational setting before a disability is determined. The effect on educational performance is, therefore, best determined through classroom observation, consultation with classroom teachers and other special educators, and interviews with parents and the student. Teacher checklists are useful for determining specifically how the dysfluencies affect educational performance. *Teacher Input – Fluency* and *Teacher Input – Fluency Checklist for Preschoolers* forms can be found in forms section.

Useful Forms for Assessment of Fluency

PARENT INPUT—FLUENCY

Student's Name _____Date of Birth _____
Form Completed By _____Relationship to Student _____
Address _____ Phone _____

1) Give approximate or exact date when stuttering was first noticed._____
_____

2) Who noticed the stuttering first? _____

3) In what situation was it first noticed or commented upon? Under what circumstances did it occur? _____
_____

4) At the time when stuttering was first noticed, did the student seem to be aware of the fact that he was speaking in a different manner? _____
_____

5) Did s/he ever show surprise or bewilderment after s/he had trouble on a word? If so, how did s/he show such reactions? _____
_____

6. Was there an awareness of stuttering, by the student in any way at first? If so, explain. After having a lot of trouble on a word, were *any* of the following observed:
(Circle those that apply.)

   a. Suddenly stopped trying? _____

   b. Suddenly left the speaking situation? _____

   c. Shouted the word? Cried? Hit someone? Smashed something? Spit upon somebody? Hid his/her face? Laughed? Did something else? _____

   d. Seemed to be a little more careful with his/her speech in attempting words on which s/he had difficulty? How? By lowering voice? By slowing down? By ceasing other bodily activity for the moment? By looking straight ahead of him/her for the moment? By shifting his/her gaze away from the listener? Any other way? _____
   _____

7. What attempts have been made to correct the stuttering? _____
   _____

8. At the time when stuttering was first noticed, was there more trouble exhibited in some situations than in others? If so, what were they? _____
   _____

9. Did stuttering occur more often when speaking with certain people? Who? _____
   _____

10. Were there any topics of conversation with which s/he had more trouble? _____
    _____

11. Did excitement seem to cause more stuttering? _____
    _____

12. Did s/he talk to strangers with less trouble than to people s/he knew well? _____
    _____

13. At the time when stuttering began, did fatigue, fear, illness, or pressing need for communication seem to cause more trouble? _____
    _____

14. Since the stuttering first began, has there been any change in the stuttering symptoms?
    _____
    _____

15. Did you notice a gradual increase in stuttering? _____
    _____

16. Were there any instances in which the number of troublesome words and number of repetitions sudddenly increased?_____
    _____
    _____

Teacher Input—Fluency

Student: _____ Birthdate _____ Age: _____
Teacher: _____School: _____ Grade_____

Your observations of the above student's speech fluency will help determine if the problem adversely affects educational performance. Check all items that have been observed. Please return the completed form to the Speech-Language Therapist.

		Yes	**No**
1.	Does the student have characteristics associated with stuttering (e.g., part or whole word repetitions, silent blocks, sound or word prolongations)?	____	____
2.	Are the stuttering characteristics accompanied by other behaviors (e.g., tension in the upper trunk, head and neck, facial tics, body movements)?	____	____
3.	Does stuttering make it difficult to understand the content of his/her speech?	____	____
4.	Does the student appear to talk less in the classroom because of stuttering?	____	____
5.	Does the student avoid verbal participation during classroom activities?	____	____
6.	Does the student avoid verbal participation in social situations?	____	____
7.	Do you think the student is aware of his/her communication problems?	____	____
8.	Have the student's parents talked to you about his/her fluency disorder?	____	____

In my opinion these behaviors do not adversely affect educational performance. ____ ____

In my opinion these behaviors do adversely affect educational performance. ____ ____

Do you have other observations relating to this student's communication skills?

_____
_____
_____

Teacher's Signature:_____ Date:_____

Adapted from Standards for the delivery of speech-language services in Michigan public schools, Michigan Speech-Language Hearing Association (1985)

Continuum of Dysfluent Speech Behavior

More Usual

1) Typical Dysfluencies

Hesitations (silent pauses)

↓

Interjection of sounds, syllables or words

↓

Revisions of phrases or sentences

↓

Phrase repetitions

↓ – — – — – — (3)

One syllable word repetitions
Two or less repetitions per instance
Even stress, no tension

C
R
O
S
S
O
V
E
R

B
E
H
A
V
I
O
R

Stuttering

2) Atypical Dysfluencies

One syllable word repetition
Three or more repetitions per instance
or uneven stress

↓

Part-word syllable repetitions
Three or more repetitions per instance
or uneven stress

– – – – –

↓

Sound repetitions

↓

Prolongations

↓

Blocks

↓

Increased tension noted;
e.g., tremor of lips or jaw or vocal tension

More Unusual

Source: Hugo Gregory, Ph.D., Professor Emeritus, and Diane Hill, M.A., Clinical Instructor, Northwestern University. From handbook for program, Stuttering Therapy Workshop for Specialists. July 6-17, 1992.

TYPES OF DYSFLUENCIES

OBSERVABLE CHARACTERISTICS OF STUTTERING

Behavior	Definition	Example
Hesitation	Any nontense break in the forward flow of speech	I___ am going home.
Broken words	With unacceptable within-word hesitations	Partially uttered words: I am g__oing home.
Repetition	Repeated utterances of parts of words (PWR), words (WR), and phrases (PR)	I am g going.(PWR) I am am going.(WR) I am going (PR)
Interjections	Use of sounds, syllables, and words that are independent of context of utterance	I er er am uh going.
Prolonged sounds	Unacceptably prolonged sounds, usually at the start of a word	I am s-s-s-so late
Dysrythmic phonation	Distortion of the prosodic elements within a word, with improper stress, timing, or accenting	I am going (rising inflection) home.
Tension	Audible manifestation of abnormal breathing or muscular tightening between words, parts of words, or interjections	I am (forced breathing) going home.
Revisions, modifications	Grammatical or content	I am, I was going.
Incomplete phrases	Failure to complete an initiated unit of speech	I am---but not today.

Adapted from Williams, D.E., Dailey, F. L. & Spriesterbach, D.D. (1978), Diagnostic Methods in Speech Pathology New York: Harper & Row.

From Culatta, R, and Goldberg, S., Stuttering Therapy: An Integrated Approach to Theory and Practice. Needham Heights, MA : Allyn and Bacon, 1995

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FLUENCY SEVERITY RATING SCALE
Determination of Speech Impairment: Fluency

Student _____ **School** _____ **Grade** _____ **Date of Rating** _____ **DOB** _____ **Age** _____ **SLT** _____

Forma/Informal Assessment	**0**	**1**	**2**	**3**
Frequency	___Frequency of dysfluency is within normal limits for age, sex and speaking situation and/or ___≤ 2 stuttered words per minute and/or ___≤ 4 % stuttered words	___Transitory dysfluencies are observed in speaking situations and/or ___3-4 stuttered words per minute and/or ___5% to 11% stuttered words	___Frequent dysfluent behaviors are observed in many speaking situations and/or ___5-9 stuttered words per minute and/or ___12% to 22% stuttered words	___Habitual dysfluent behaviors are observed in majority of speaking situations and/or ___More than 9 stuttered words per minute and/or ___≥23% stuttered words
Descriptive Assessment	**0** ___Speech flow and time patterning are within normal limits. Developmental dysfluencies may be present	**1** ___Whole-word repetitions ___Part-word repetitions and/or ___Prolongations are present with no secondary characteristics. Fluent speech periods predominate	**2** ___Whole-word repetitions ___Part-word repetitions and/or ___Prolongations are present. Secondary symptoms, including blocking avoidance and physical concomitants may be observed.	**3** ___Whole-word repetitions ___Part-word repetitions and/or ___Prolongations are present. Secondary symptoms predominant. Avoidance and frustration behaviors are observed.
Speaking Rate	**0** ___Speaking rate not affected	**1** ___Speaking rate affected to mild degree. Rate difference rarely notable to observer, listener and/or ___82-99 WSM 125-150 WSM	**2** ___Speaking rate affected to moderate degree. Rate difference distracting to observer, listener and/or ___60-81 WSM 150-175 WSM	**3** ___Speaking rate affected to severe degree and distracting to listener/observer and/or ___<59 WSM > 175 WSM

Instructions:
1. Circle the score for the most appropriate description for each of these categories: *Frequency, Descriptive Assessment, Speaking Rate.*
2. Compute the total score and record below.
3. Circle the total score on the rating bar/scale below.

2 3 4 5 6 7 8 9

WNL Mild Moderate Severe **TOTAL SCORE** _____

Based on compilation of the assessment data, this student scores in the *Mild*, *Moderate* or *Severe* range for Fluency disorder. ____Yes ____No
There is documentation/supporting evidence of adverse effects of the Fluency Disability on educational performance. ____Yes ____No
(BOTH STATEMENTS ABOVE MUST BE CHECKED YES)

***Determination of eligibility as a student with a Speech and/or Language Impairment is made by the IEP Team.**

VOICE

VOICE ASSESSMENT CONSIDERATIONS

There are multiple aspects to consider when evaluating voice impairments:

- pitch,
- loudness, and
- quality , including resonance.

Many disorders of voice or resonance have an organic etiology with a related medical history. Other disorders are functionally based, caused by "faulty usage" or behavioral histories. For assessment and instructional purposes, classifying voice disorders by vocal behaviors or symptoms provides the most useful information for the speech-language pathologist. Boone and McFarlane (1988) suggest that "Patients with voice quality and resonance problems generally require some medical evaluation of the ears, nose, and throat as part of the total voice evaluation…A laryngeal examination must be made before a patient can begin voice therapy for problems related to quality or resonance…Voice therapy efforts should be deferred until a medical examination (which would include laryngoscopy) is concluded, because there are occasional laryngeal pathologies, such as papilloma or carcinoma, for which voice therapy would be strongly contraindicated. In such cases, the delay of accurate diagnosis of these pathologies could be life-threatening (pp. 104-105)." No child should be enrolled for voice therapy without prior otolaryngological examination. However, the presence of a medical condition (e.g., vocal nodules) does not necessitate the provision of voice therapy as special education or a related service – nor does a prescription for voice therapy from a physician.

Disorders of Resonance

Speech resonance is the modification of a vibrating airstream by the pharyngeal, oral and nasal cavities. Therefore, resonance disorders are not "voice disorders" and should not be treated as such. There are several types of resonance disorders that may be observed in school age children. In the overwhelming majority of the cases, the etiologies of the resonance problem are structural in nature. It is, therefore, unlikely that speech intervention will have any long-term benefit for the child. In most cases, referral to a cleft palate team is the most appropriate recommendation. A list of cleft palate teams can be obtained by calling the Cleft Palate Foundation Cleftline at 1-800-24-CLEFT (1-800-242-5338).

Hypernasality: excessive nasal resonance during production of vowels and semivowels. Hypernasality is typically the result of some type of velopharyngeal inadequacy (VPI). The most common causes are cleft palate (unrepaired or inadequately repaired), submucous cleft palate, occult submucous cleft palate, neurologic impairments and excessive pharyngeal depth. In many cases, the presence of or extent of VPI cannot be determined by an intraoral examination. Rather, endoscopic and pressure flow evaluations are needed. Hypernasality can range from mildly inconsistent to consistently severe and a variety of rating scales can be used to assess the degree of impairment. In general, hypernasality cannot be improved through traditional speech intervention. Most individuals with hypernasality resulting from VPI require physical management in the form of surgery or prosthetic appliances.
Nasal emission: excessive nasal airflow during the production of pressure consonants. Nasal emission is not technically a resonance disorder, but an articulation disorder resulting from

inadequate velopharyngeal closure. However, it frequently occurs in individuals with hypernasality. In most cases, nasal emission results from VPI and cannot be improved with traditional speech intervention. Rather, physical management (i.e., surgery) is needed to correct the underlying cause of velopharyngeal dysfunction.

Hyponasality: reduced nasal resonance during production of nasal semivowels [m. n, ŋ] and the vowels adjacent to these sounds. Hyponasality usually results from an obstruction in the nasal cavity, the nasopharynx, or the oropharynx. These obstructions may be temporary (e.g., allergic reactions) or permanent (e.g., large tonsils and adenoids). The cause of the obstruction may not be visible on oral inspection; therefore, an endoscopic evaluation may be needed to determine the etiology, location and extent of the obstruction. Hyponasality can range from mildly inconsistent to consistently severe and a variety of rating scales can be used to assess the degree of impairment. Speech therapy cannot reduce hyponasality that results from a permanent obstruction. Medical management will be needed to alleviate this resonance problem.

Mixed resonance: a combination of hypernasality and hyponasality during connected speech. Mixed resonance is the result of both VPI and upper airway obstruction. Endoscopic and radiographic assessment may be necessary to delineate the causes of this resonance disorder. Medical management will be needed to alleviate this resonance disorder.

CONDUCTING A SPEECH EVALUATION FOR VOICE

- Conduct hearing screening.
- Obtain relevant information from the parents: concerns about communication skills, developmental history, etc.
- Information must be gathered from two educators: the student's classroom teacher as well as another professional. For preschoolers, obtain information from child care providers and other adults who see the child outside the family structure.
- Obtain information from teachers related to progress in the general curriculum, communication skills, behavior, and social interactions. General curriculum for preschoolers is developmentally appropriate activities.
- Review school records (e.g., grades, test scores, special education file, documentation of prereferral strategies/interventions, and discipline and attendance records).
- Complete an oral-peripheral screening.
- Obtain medical report from an otolaryngologist
- Collect a representative sample of the student's speech.
- Analyze voice, pitch, intensity and quality.
- Document how the student's voice impairment adversely affects the student's educational performance in the general education classroom or the learning environment. For preschoolers, document how the voice dysfunction adversely affects their ability to participate in developmentally appropriate activities.
- Complete the *Voice Severity Rating Scale* (Appendix).
- Finalize and submit to the IEP team a *Speech and Language Evaluation Report* and/or DEC 3 (Appendix).

INTERPRETING AND REPORTING EVALUATION RESULTS

Several checklists are available to report findings (Appendices B and G). For more detailed information regarding procedures for assessing fundamental frequency/habitual pitch, breathing patterns and breath support, and the s/z ratio for respiratory/phonatory efficiency, refer to Assessment in Speech-Language Pathology: A Resource Manual (Shipley and McAffee, 1998). Procedures for the identification of resonance problems including hypernasality, hyponasality and assimilation nasality and assessment of velopharyngeal functioning can be found in this resource manual as well. The impairment must not be related to unresolved upper respiratory infection or allergies that are not being actively treated by a physician.

USING THE VOICE SEVERITY RATING SCALE

The *Voice Severity Rating Scale* is to be used as a tool after a complete assessment of the student's voice. The scale is designed to assist the examiner with interpretation and documentation of the results of voice assessment findings in terms of severity (pitch, intensity, quality and resonance). This scale is not a diagnostic instrument and should not be used in the absence of assessment data.

In order to be identified as a student with a speech impairment with voice difficulties, the severity of voice dysfunction must be determined to have an "adverse effect on educational performance." The rating scale serves three purposes:

1) to document the presence of voice dysfunction and to what extent (mild, moderate, severe),
2) to indicate the absence or presence of adverse effects on educational performance, and
3) to determine whether or not the student meets eligibility standards for a speech impairment in voice.

"Educational performance" refers to the student's ability to participate in the educational process and must include consideration of the student's social, emotional, academic and vocational performance. The presence of voice dysfunction does not automatically indicate an adverse effect on the student's ability to function within the educational setting. The voice dysfunction must be shown to interfere with the student's ability to perform in the educational setting before a disability is determined. The effect on educational performance is, therefore, best determined through classroom observation, consultation with classroom teachers and other special educators, and interviews with parents and the student. Teacher checklists are useful for determining how the voice dysfunction affects educational performance. The *Teacher Input – Voice* form can be found in Appendix.

Useful Forms for Assessment of Voice

TEACHER INPUT - VOICE

Student _____ Date _____
Teacher _____ Grade/Program _____

Your observations of the above student's speech will help determine if s/he has a voice problem which adversely affects educational performance. Please answer all questions and return this form to: _____.

		Yes	No
1.	Is this student able to project loudly enough to be adequately heard in your classroom during recitations?	___	____
2.	Does this student avoid reading out loud in class?	___	____
3.	Does this student appear generally to avoid talking in your classroom?	___	____
4.	Does this student ever lose his or her voice by the end of the school day?	___	____
5.	Does this student use an unusually loud voice or shout a great deal in your classroom?	___	____
6.	Does this student engage in an excessive amount of throat clearing or coughing? If so, which? _____	___	____
	If so, how does it appear to disturb the other students, (e.g., their concentration, listening)? _____	___	____
7.	Is this student's voice quality worse during any particular time of the day? If so, when? _____	___	____
8.	Does this student's voice quality make it difficult to understand the content of his or her speech?	___	____
9.	Does this student's voice quality in itself distract you from what he or she is saying?	___	____
10.	Has this student ever mentioned to you that he or she thinks he or she has a voice problem?	___	____
11.	Have you ever heard any of his or her peers mention his or her voice sounds funny or actually make fun of this student because of his or her voice problem?	___	____
12.	If this student has a pitch that is too low or too high, does his or her pitch make it difficult to identify him or her as male or female just by listening?	___	____
13.	During speaking, does this student's voice break up or down in pitch to the extent that s/he appears to be embarrassed by this?	___	____

Additional observations/comments: _____

_____

It is my opinion that these behaviors:

____ Do not interfere with the child's participation in the educational setting

____ Do interfere with the child's participation in the educational setting.

_____ _____

Date Classroom Teacher's Signature

Adapted from *Speech and Language Services in Michigan*: Suggestions for Identification, Delivery of Service and Exit Criteria, edited by Elizabeth Loring Lockwood and Kathleen Pistano. East Lansing: The Michigan Speech-Language-Hearing Association, 1991.

VOICE EVALUATION WORKSHEETS

Child _____ DOB _____ Date _____ SLT _____

School _____ Teacher _____ Grade _____

Record areas assessed. The assessment should reflect areas of concern described in the referral and those that arise during the evaluation. Areas not assessed should be marked N/A.

Voice Area	**Impairment**	**Evidence**	**Adverse Effects on Educational Performance**
PHONATION			
Isolation			
Total Pitch Range			
Optimum Pitch			
Pitch Appropriateness for Age			
Pitch Appropriateness for Sex			
Loudness Range			
Aphonia			
Breathiness			
Diplophonia			
Glottal Fry			
Hoarseness			
Harshness			
Tremor			

Child _____ Date _____

Voice Area	Impairment	Evidence	Adverse Effects on Educational Performance
PHONATION *(cont'd)*			
Connected Speech			
Voice Onset			
Voiceless to Voiced			
Appropriateness of Loudness			
Pitch Breaks			
Pitch Range			
Habitual Pitch			
Aphonia			
Breathiness			
Diplophonia			
Glottal Fry			
Hoarseness			
Harshness			
Tremor			
RESONANCE IN CONNECTED SPEECH			
Hypernasality			
Hyponasality			
Throatiness/Cul De Sac			
Nasal Emission			
Assimilation Nasality			

Child _____ Date _____

Voice Area	Impairment	Evidence	Adverse Effects on Educational Performance
PROSODY IN CONNECTED SPEECH			
Stress			
Intonation			
RESPIRATION			
Type of Breathing Pattern			
At rest			
In Connected Speech			
Breath Support for Speech			
Posture			
Tension			
ASSOCIATED FACTORS			
Vocal Abuse Behaviors			
Personality Factors			
ORAL MECHANISM			
Structure			
Function/Tension			
OTL EXAMINATION RESULTS			

VOCAL CHARACTERISTICS CHECKLIST[2]

Name:_____ Age:_____ Date:_____

Examiner:_____

Instructions: Check each characteristic your student exhibits and indicate severity. Make additional comments on the right-hand side of the page.

1 = mild 2 = moderate 3 = severe

Comments

Pitch

___ too high_____

___ too low_____

___ monotone_____

___ limited variation_____

___ excessive variation_____

___ pitch breaks_____

___ diplophonia_____

Loudness

___ too loud_____

___ too soft or quiet_____

___ monoloudness_____

___ limited variation_____

___ excessive variation_____

Phonatory-Based Quality

___ breathy voice_____

___ shrill voice_____

___ strident voice_____

[2] Assessment in Speech-Language Pathology 1998 by Singular Publishing Group.

Phonatory-Based Quality *(continued)*

Comments

___ harsh voice_____

___ hoarse voice_____

___ quivering voice_____

___ tremor in the voice_____

___ weak voice_____

___ loss of voice_____

___ glottal fry_____

Nasal Resonance

___ hypernasal_____

___ nasal emission_____

___ assimilation nasality_____

___ hypernasal (denasal)_____

Oral Resonance

___ cul-de-sac_____

___ chesty_____

___ thin, babyish voice_____

Other

___ reverse phonation_____

___ progressively weakening voice_____

___ aggressive personality factors_____

___ breathing through the mouth_____

___ hard glottal attacks_____

___ inadequate breath support_____

___ throat clearing_____

___ disordered intonational patterns_____

___ disordered stress patterns_____

Vocally Abusive Behaviors Checklist[3]

Name:_____ Age:_____ Date:_____

Examiner:_____

Instructions: Have the student evaluate each behavior according to the rating scale. Use the comments column on the right-hand side to add any additional, relevant information.

1 = never 3 = occasionally 5 = always
2 = infrequently 4 = frequently

Comments

_____ alcohol consumption_____

_____ arcade talking_____

_____ arguing with peers, siblings, others_____

_____ athletic activity involving yelling_____

_____ breathing through the mouth_____

_____ caffeine products used (coffee, chocolate, etc.)_____

_____ calling others from a distance_____

_____ cheerleading or pep squad participation_____

_____ coughing or sneezing loudly_____

_____ crying_____

_____ dairy products used_____

_____ debate team participation_____

_____ environmental irritants exposure_____

_____ grunting during exercise or lifting_____

_____ inhalants used frequently_____

_____ laughing hard and abusively_____

_____ nightclub social talking_____

[3] Assessment in Speech-Language Pathology 1998 by Singular Publishing Group.

Comments

_____ participation in plays_____

_____ singing in an abusive manner_____

_____ smoking_____

_____ speeches presented_____

_____ talking loudly during menstrual periods_____

_____ talking loudly during respiratory infections_____

_____ talking for extended periods of time_____

_____ talking in noisy environments_____

_____ talking in smoky environments_____

_____ talking while in the car_____

_____ teaching or instructing_____

_____ telephone used frequently_____

_____ vocalizing toy or animal noises_____

_____ vocalizing under muscular tension_____

_____ yelling or screaming_____

_____ other _____

VOCAL SELF-PERCEPTION: ATTITUDINAL QUESTIONNAIRE

Do you ever think about your voice?	Yes	No	No Opinion
Have you ever heard your voice on tape playback (e.g., on cassette recorder, answering machine)?	Yes	No	No Opinion
I. Did you like your voice on tape playback?	Yes	No	No Opinion
II. Has anyone ever commented on your voice? *If Yes, what was said?*	Yes	No	No Opinion
III. Do you think your voice represents your image of yourself (masculine, feminine, intelligent, educated, friendly, etc.)? *If Yes or No, in what way?*	Yes	No	No Opinion
IV. Do any of your friends, male or female, have voices that you especially like? *If Yes, explain.*	Yes	No	No Opinion
V. Do any of your friends, male or female, have voices that you especially dislike? *If Yes, explain.*	Yes	No	No Opinion
VI. Does your voice sound like that of any other member of your family? *If Yes, explain.*	Yes	No	No Opinion

VII. Circle any words below that describe your voice and the way you speak in general (either on tape replay or while actually talking).

pleasant	too soft	too loud
sexy	high-pitched	strong
raspy	low-pitched	thin
hoarse	grow	whiney
harsh	too fast	interesting
shrill	too slow	resonant
squeaky	weak	masculine
monotonous	breathy	feminine
nasal	weak	resonant
mumble	clear	expressive
husky		average

Add any other terms that may describe your voice.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

VOICE CONSERVATION INDEX FOR CHILDREN*

CHILD'S INITIALS _____AGE _____ SEX _____ DATE _____

Please circle the answer that is best.

1. When I get a cold, my voice gets hoarse.
   All the time Most of the time Half the time Once in a while Never
2. After cheering at a ballgame, I get hoarse.
   All the time Most of the time Half the time Once in a while Never
3. When I'm in a noisy situation, I stop talking because I think I won't be heard.
   All the time Most of the time Half the time Once in a while Never
4. When I'm in a noisy situation, I speak very loudly.
   All the time Most of the time Half the time Once in a while Never
5. When I'm at home or at school, I spend a lot of time talking every day.
   All the time Most of the time Half the time Once in a while Never
6. I like to talk to people who are far away from me.
   All the time Most of the time Half the time Once in a while Never
7. When I play outside with my friends, I yell a lot.
   All the time Most of the time Half the time Once in a while Never
8. I lose my voice when I don't have a cold.
   All the time Most of the time Half the time Once in a while Never
9. People tell me I talk too loudly.
   All the time Most of the time Half the time Once in a while Never
10. People tell me I never stop talking.
    All the time Most of the time Half the time Once in a while Never
11. I like to talk.
    All the time Most of the time Half the time Once in a while Never
12. I talk on the phone.
    All the time Most of the time Half the time Once in a while Never
13. At home, I talk to people who are in another room.
    All the time Most of the time Half the time Once in a while Never
14. I like to make car or other noises when I play.
    All the time Most of the time Half the time Once in a while Never
15. I like to sing.
    All the time Most of the time Half the time Once in a while Never
16. People don't listen to me unless I talk loudly.
    All the time Most of the time Half the time Once in a while Never

*Saniga and Carlin (1991)

Source: Saniga, R.D. and Carlin, M.F. "Vocal Abuse Behaviors in Young Children". Language, Speech, and Hearing Services in Schools, 1993: 24 (2), p. 83. Reprinted by ASHA with permission of authors..

VOICE SEVERITY RATING SCALE

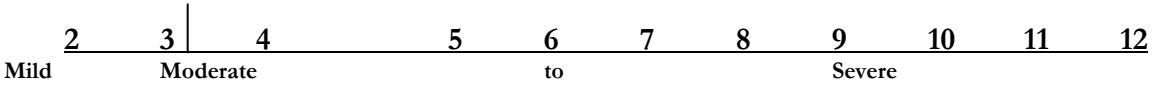
Determination of Speech Impairment: Voice

Student _____ **School** _____ **Grade** _____ **Date of Rating** _____ **DOB** _____ **Age** _____

SLT_____

Pitch	**0** Pitch is within normal limits.	**1** There is a noticeable difference which may be intermittent.	**3** There is a persistent, noticeable inappropriate raising or lowering of pitch for age and sex.
Intensity	. **0** Intensity is within normal limits.	**1** There is a noticeable difference in intensity which may be intermittent.	**3** There is persistent, noticeable, inappropriate increase or decrease in the intensity of speech or the presence of aphonia.
Quality	**0** There is a noticeable difference in nasality which may be intermittent.	**1** There is a noticeable difference in nasality which may be intermittent.	**3** There is persistent, noticeable, breathiness, glottaltry, harshness, hoarseness, tenseness, stridency or other abnormal quality.
Resonance	**0** Nasality is within normal limits	**1** There is a noticeable difference in nasality which may be intermittent.	**3** There is persistent, noticeable cul de sac, hyper or hyponasality, or mixed nasality.

Instructions: 1. Do not include regional or dialectal differences when scoring.
2. Circle the score for the most appropriate description for each category, i.e., Pitch or Intensity.
3. Compute the total score and record below.
4. Circle the total score on the bar/scale below.



TOTAL SCORE_____

Based on compilation of the assessment data, this student scores in the *Mild*, *Moderate or Severe* range Voice Disorder. ____Yes ____No

There is documentation/supporting evidence of adverse effects of the Voice disorder on educational performance. ____Yes ____No

(BOTH STATEMENTS ABOVE MUST BE CHECKED YES)

***Determination of eligibility as a student with a Speech and/or Language Impairment is made by the IEP Team.**

RELATED AREAS

ENGLISH LANGUAGE LEARNER (ELL) AND DIALECTAL DIFFERENCES

ASSESSMENT RESOURCES

Home Language Survey

Linguistic and Conceptual Development Checklist

Normal Processes of Second Language Acquisition

Effective Second Language Acquisition Variables

Second Language Learning Styles and Strategies

Characteristics of African American Language Morphology and Syntax

Characteristics of African American Language, Articulation, and Phonology

Non-Standard Dialects

Characteristics of Mountain Dialects

For additional information in this area you may wish to consult the web site of Dr. Alejandro Brice Associate Professor University of Central Florida http://www.ashaucf.edu/ASHA2002.html

Home Language Survey

Student: _____ School: _____Teacher: _____ Grade: _____

	Other Language Specify	English	About Equal	Mixed Code	Neither
Which language does your child seem to understand?					
Which language did your child first learn to speak?					
In which language does your child speak to:					
Father					
Mother					
Siblings					
Grandmother					
Grandfather					
Caretaker					
Friends/Playmates					
Other					
Other					
Which language does your child speak when playing by him/herself?					
Which language does your child prefer when watching television?					
Which language does your child prefer when listening to the radio or stereo?					
Which language do each of the following people use when speaking to your child?					
Father					
Mother					
Siblings					
Grandmother					
Grandfather					
Caretaker					
Friends/Playmates					
Other					
Other					

	Other Language Specify	English	About Equal	Mixed Code	Neither
Which language do each of the following people speak most often at home?					
Father					
Mother					
Siblings					
Grandmother					
Grandfather					
Caretaker					
Friends/Playmates					
Other					
Other					
In which language are most of the print materials (e.g., books, magazines, newspapers) you receive in your home?					
Is your child read to at home? Yes____ No_____ *If yes, in what language?*					
Conclusions from Survey					
Based on the above information, which seems to be the dominant language of the home?					
Which seems to be the dominant language of the child?					

Comments:

Interview Respondent _____

Interview conducted by _____ Date _____

Source: Ortiz., Alta A., Special Project in Bilingual Special Education, Department of Special Education,. College of Education, the University of Texas at Austin. Austin, TX 78712

LINGUISTIC AND CONCEPTUAL DEVELOPMENT CHECKLIST

Student's Name _____Date of birth _____Chronological age _____

Language Spoken _____

QUESTIONS	Yes	No	Don't Know
❑ Has the child been regularly exposed to L1 literacy-related materials?	___	___	___
❑ Is the child's vocabulary in the first language well-developed?	___	___	___
❑ Was the child's L1 fluent and well-developed when s/he began learning English?	___	___	___
❑ Have the child's parents been encouraged to speak and/or read in L1 at home	___	___	___
❑ Has the child's L1 been maintained in school through bilingual education, L1 tutoring and/or other L1 maintenance activities?	___	___	___
❑ Does the child show interest in L1 maintenance and interaction?	___	___	___
❑ Is the English classroom input comprehensible to the child?	___	___	___
❑ Does the child have frequent opportunities for negotiating meaning and practicing comprehensible output in English?	___	___	___
❑ Has the child been regularly exposed to enriching experiences such as going to museums, libraries, etc.?	___	___	___
❑ Has the child's school attendance been regular?	___	___	___

The more "yes" answers that are checked, the more likely it is that the child has a good conceptual foundation for language and academic learning. The more "no" answers that are checked, the more likely it is that the child has underdeveloped conceptual and linguistic abilities due to limitations within the school and/or home environment, language loss, limited English practice opportunities, inadequate bilingual services, or a combination of these factors.

Assessment Form 1

NORMAL PROCESSES OF SECOND LANGUAGE ACQUISITION

Student's Name: _____ Date of Birth: _____

Chronological Age: _____ Assessment Date: _____

Language Background: _____

_____

MAJOR SECOND LANGUGE ACQUISITION PROCESSES

Please put a check mark beside the second language acquisition (SL) processes you and/or other professionals believe the student is manifesting at this time. Record any comments that are relevant in this situation.

_____**Interference**
Comments:

_____**Interlanguage**
Comments:

_____**Silent period**
Comments:

_____**Codeswitching**
Comments:

_____**Language loss**
Comments:

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 259. Reprinted with Permission.

Assessment Form 2

EFFECTIVE SECOND LANGUAGE ACQUISITION VARIABLES

Student's Name: _____ Date of Birth: _____

Chronological Age: _____ Assessment Date: _____

Language Background: _____

_____

Please put a check mark beside any variables you and/or other professionals believe are influencing the child's acquisition of English:

_____Motivation

___Acculturation (student and family's ability to adapt to the dominant culture)
___Enclosure with American culture (shared activities with Americans)
___Attitudes of child's ethnic group and dominant group toward one another
___Family plans to stay in/leave this country (circle one)
___Possibility that learning English is a threat to the student's identity
___Student's efforts to learn English are successful/unsuccessful (circle one)
___Student appears enthusiastic/unenthusiastic about learning (circle one)

Comments:

_____Personality

___Self-esteem
___Extroverted/introverted (circle predominant pattern)
___Assertive/non-assertive (circle predominant pattern)

Comments:

_____**Socioeconomic status** (similar to other children in school?)

Comments:

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 262. Reprinted with Permission.

Assessment Form 3

SECOND LANGUAGE LEARNING STYLES AND STRATEGIES

Student's Name: _____ Date of Birth: _____

Chronological Age: _____ Assessment Date: _____

Language Background: _____

_____

Please comment on any second language learning styles and strategies that may characterize or be utilized by this student.

Avoidance (of situation, persons, topics, etc.)

Use of routines and formulas (e.g., "how are you?" or "have a good day!")

Practice opportunities (quantity and quality; who does the student interact with in English? In what settings? School? Neighborhood?)

Modeling (Who are the student's primary speech and language models? What languages do these models speak? If they speak English, what is the quality of their English? How much time does the student spend with them?)

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 261. Reprinted with Permission.

CHARACTERISTICS OF AFRICAN AMERICAN LANGUAGE MORPHOLOGY AND SYNTAX

AAL FEATURE/CHARACTERISTIC	MAINSTREAM AMERICAN ENGLISH	SAMPLE AAL UTTERANCE
Omission of noun possessive	That's the woman's car. It's John's pencil.	That ***the woman*** car. It ***John*** pencil.
Omission of noun plural	He has 2 boxes of apples. She gives me 5 cents.	He got 2 ***box*** of ***apple***. She ***give*** me 5 ***cent***.
Omission of third person singular present tense marker	She walks to school. The man works in his yard.	She ***walk*** to school. The man ***work*** in his yard.
Omission of "to be" forms such as "is, are"	She is a nice lady. They are going to a movie.	***She*** a nice lady. ***They going*** to a movie.
Present tense "is" may be used regardless of person/number	They are having fun. You are a smart man.	***They is*** having fun. ***You is*** a smart man!
Utterances with "to be" may not show person number agreement with past and present forms	You are playing ball. They are having a picnic.	You ***is*** playing ball. They ***is*** having a picnic.
Present tense forms of auxiliary "have" omitted	I have been here for 2 hours.	I ***been*** here for 2 hours.
Past tense endings may be omitted	He has done it again.	He ***done*** it again.
Past "was" may be used regardless of number and person	He lived in California. She cracked the nut.	He ***live*** in California. She ***crack*** the nut.
	They were shopping. You were helping me.	They ***was*** shopping. You ***was*** helping me.

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, pp. 50-51. Reprinted with Permission.

AAL Feature/Characteristic	Mainstream American English	Sample AAL Utterance
Multiple negatives (each additional negative form adds emphasis to the negative meaning)	We don't have any more. I don't want any cake.	We ***don't have no*** more. I ***don't never want no*** cake I ***don't never*** like broccoli.
"None" may be substituted for "any"	She doesn't want any.	She don't want ***none***. She ***give*** me 5 ***cent***.
Perfective construction; "been" may be used to indicate that an action took place in the distant past	I had the mumps when I was 5. The man works in his yard.	I ***been had*** the mumps when I was 5. I ***been known*** her.
"Done" may be combined with a past tense form to indicate that an action was started and completed	He fixed the stove. She tried to paint it.	He ***done fixed*** the stove. She ***done tried*** to paint it.
The form "be" may be used to indicate actions and events over time	Today she is working. We are singing.	Today ***she be*** working. ***We be*** singing.
Distributive "be" may be used to indicate actions and events over time	He is often cheerful. She's kind sometimes.	***He be*** cheerful. ***She be*** kind.
A pronoun may be used to restate the subject	My brother surprised me. My dog has fleas.	My brother, ***h***e surprise me. My dog, ***he*** got fleas.
"Them" may be substituted for "those"	Those cars are antiques. Where'd you get those books?	***Them*** cars, they be antique. Where you get ***them*** books?
Future tense "is, are" may be replaced by "gonna"	She is going to help us. They are going to be there.	She ***gonna*** help us. They ***gonna*** be there.
"At" is used at the end of "where" questions	Where is the house? Where is the store?	Where is the house ***at***? Where is the store ***at***?
Additional auxiliaries are often used	I might have done it.	I ***might could have*** done it.
"Does" replaced by "do"	She does funny things. It does make sense.	***She do*** funny things. ***It do*** make sense.

AAL FEATURE/CHARACTERISTIC	MAINSTREAM AMERICAN ENGLISH	SAMPLE AAL UTTERANCE
/l/phoneme lessened or omitted	tool always	too' a'ways
/r/phoneme lessened or omitted	doors mother protect	doah mudah p'otek
/f/voiceless "th" substitution at end or middle of word	teeth both nothing	teef bof mufin'
/t/voiceless "th" substitution in beginning of a word	think thin	tink tin
/d/voiced "th" substitution at the beginning, middle of words	this brother	dis broder
/v/voiced "th" substitution at the end of words	breathe smooth	breave smoov
consonant cluster reduction	desk rest left wasp	des' res' lef' was'
differing syllable stress patterns	guitar police July	***gui*** tar ***po*** lice ***Ju*** ly

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, pp. 53-54. Reprinted with Permission.

AAL Feature/Characteristic	Mainstream American English	Sample AAL Utterance
Verbs ending in /k/ are changed	liked walked	li-tid wah-tid
Metathesis occurs	ask	aks ("axe")
Devoicing of final voiced consonants	bed rug cab	bet ruk cap
Final consonants may be deleted	bad good	ba' goo'
I/E substitution	pen ten	pin tin
b/v substitution	valentine vest	balentine bes'
dipthong reduction	find oil pound	fahnd ol pond
n/ng substitution	walking thing	walkin' thin'

Note: Characteristics may vary depending on variables such as geographic region

NON-STANDARD DIALECTS

A dialect is comprised of consistent and predictable variations from Standard English. When these differences occur, they are not to be considered as sufficient cause for accepting a child into speech therapy. They are dialectal in nature and are generally dealt with by the regular classroom teacher in English class. According to Berrey (American Speech 1940) dialectal variations differed only slightly in the various regions of southern Appalachia more than 30 years ago. We have no reason to believe that this same pattern does not pertain today. The four main divisions: (a) the Blue Ridge of Virginia and West Virginia, (b) the Great Smokies of Tennessee and North Carolina, (c) the Cumberlands-Alleghenies of Kentucky and Tennessee, and (d) the Ozarks of Arkansas and Southern Missouri--the great mountainous belts surrounding the great valley of southern Appalachia--demonstrated relatively few differences in language patterns. Otherwise, the dialectal speech patterns of Appalachia are fairly homogenous, except for some significant lexical differences.

CHARACTERISTICS OF MOUNTAIN DIALECTS

MOUNTAIN DIALECT/CHARACTERISTIC	MAINSTREAM AMERICAN ENGLISH	SAMPLE MTN. DIALECT UTTERANCE
Pronunciation		
Common Omission Patterns		
(1) Omission of initial unstressed syllable is frequent	across account according appears	'crost 'count cordin' 'pears
(2) Omissions of one of two stop sounds that are in proximity to each other. For example, the (k) and (t) combination	directly	direckly
(3) Omission of (d) and (t) in particular in order to avoid using the stop	children let's	chillern less
(4) Omission of medial (r)	burst curse first	bust cuss hoss fust
(5) Occasionally two syllables containing the (r) disappear: tolable, consid'able	tolerable	tolable
(6) Omission of final sounds, particularly stops and usually a dental; for example, final (t) is lost after (ep), and it also tends to disappear after (f); after (s), etc.; final (d) is usually dropped after (n) and (l); final (p) is often lost after (s)	slept crept loft Baptist must old hand ground clasp wasp	slep' kep' lof' Baptis' mus' ole han' groun' clas' was'

MOUNTAIN DIALECT/CHARACTERISTIC	MAINSTREAM AMERICAN ENGLISH	SAMPLE MTN. DIALECT UTTERANCE
The Addition of Sounds: Some Patterns Only		
(1) Voiceless consonant following a nasal causes the addition of a (p) or (t); if the consonant is voiced, the (b) or (d) are added	comfort warmth family chimney	compfort warmpth fambly chimbly
(2) Similarly when (1) is followed by a consonant, a stop (d) or (t) may be added before the next consonant	miles else	milds elts
(3) Intrusive (r) after the schwa	magazine banana	magerzine bananer
Some Vowel Substitutions		
(1) The sound (I) tends to become (e): ben (been), breng (bring)	been bring	ben breng
(2) The sound (e) may be modified to (I): kittle, chist, git, yit	kettle chest get yet	kittle chist git yit
(3) Occasionally (ei) becomes (i), (I), (e), and (ou)	drain grate came naked	dreen grit kem necked
(4) The sound (o) may become (er)	window hollow banjo	winder holler banjer
	brush grudge such just	bresh gredge sich jist

CHARACTERISTICS OF MOUNTAIN DIALECTS

MOUNTAIN DIALECT/CHARACTERISTIC	MAINSTREAM AMERICAN ENGLISH	SAMPLE MTN. DIALECT UTTERANCE
Sound Consonant Substitutions		
(1) Sometimes (d) becomes (dz) and conversely the final (t) becomes (d)	tedious salad twenty	tejous salat twendy
(2) Sometimes (k) replaces (t)	vomit	vomick
(3) The (t) becomes (ch) before (iu), (ju), and (u)	tune Tuesday	chune cheusday
Grammar		
Nouns		
(1) Their use as noun compounds in which the initial noun is used attributively	Church widow Bible	church-house widder-man Bible-book
(2) Pluralization	posts nests beasts	postes nestes beastes
(3) Collective sense-singular and plural alike	seven years ago six feet high	seven year back six-foot high
(4) Appending –er to compounds	deaf and dumb new-born	deef-an'-dumber new-born'der

MOUNTAIN DIALECT/CHARACTERISTIC	MAINSTREAM AMERICAN ENGLISH	SAMPLE MTN. DIALECT UTTERANCE
Pronouns		
(1) Emphatic demonstratives	this he's here that that is this that	this here hese hyar that thar that 'ar this'n that'n
(2) Disjunctive possessives (based on mine)	theirs hers his yours ours	theirn hern hisn yourn ourn
(3) Reflexives	himself themselves	hisself theirselves theyselves
(4) Hit used as a variant of it at beginning of a clause or medially only when particular emphasis is desired	It is over there.	Hit is over there.
(5) Them is commonly employed for those and they	Those boys went into town. They took the car.	Them boys went into town. Them took the car.
Verbs		
(1) Strong preterites abound	shook drove fought froze rode broke sent wrapped	shuch driv fit friz rid bruk saunt wrop
(2) More often a weak preterite is used to replace a strong one	knew drew drank caught blew saw	knowed drawed drunked ketched blowed seed
(3) Addition of –ed to past form of many verbs	born cost drown	borned costed drowned

CHARACTERISTICS OF MOUNTAIN DIALECTS

MOUNTAIN DIALECT/CHARACTERISTIC	MAINSTREAM AMERICAN ENGLISH	SAMPLE MTN. DIALECT UTTERANCE
Adjectives and Adverbs		
(1) Comparatives and superlatives are formed suffixing –er or –est	most grown up best fighter the only best dancing	growed-upper fightin'er onliest dancin'est
(2) Double comparative and superlatives are common	worse better best	worser more betterer most best
Prepositions 1. A- is used with verbal nouns	going giving	a-going' a-givin'
2. On for of is contracted	off of out of	off'n out'n
Conversion-Parts of Speech are Interchanged 1. Adjectives serve as verbs	Now don't go agonizing him any.	Now don't go a contraryin' him none.
2. Nouns converted to verbs	He's always blaming me. It won't please her much.	He's allus a-faultin' me. Hit won't pleasure her much.
3. Verbs converted to nouns	I brought in an armload of wood.	I fotched a carryin' armful o' wood.
4. Adverbs as nouns	A person should have a preference about what he says.	A body should have a rather about what all he says.
5. Adjectives as nouns	We sure got a good crop of onions this year.	We shore got a lavish o' onions this year.
Pleonasm-the Redundancy of Southern Mountain Speech	the small man during nap	a small little-bitty feller durin' the while nap o' sleep

LANGUAGE DIFFERENCES COMMONLY OBSERVED AMONG SPANISH SPEAKERS

LANGUAGE CHARACTERISTICS	SAMPLE ENGLISH UTTERANCES
1. Adjective comes after noun.	The house green.
2. 's is often omitted in plurals and possessives.	The girl book is… Juan hat is read.
3. Past tense –ed is often omitted.	We walk yesterday.
4. Double negatives are required.	I don't have no more.
5. Superiority is demonstrated by using *mas*.	This cake is more big.
6. The adverb often follows the verb.	He drives very fast his motorcycle.

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 67. Reprinted with Permission.

ARTICULATION DIFFERENCES COMMONLY OBSERVED AMONG SPANISH SPEAKERS

ARTICULATION CHARACTERISTICS	SAMPLE ENGLISH UTTERANCES
1. /t, d, n/ may be dentalized (tip of tongue is placed against the back of the upper central incisors)	
2. final consonants are often devoiced	dose/doze
3. b/v substitution	berry/very
4. deaspirated stops (sounds like speaker is omitting the sound because it is said with little air release)	
5. ch/sh substitution	Chirley/Shirley
6. d/voiced th, or z/voiced th (voiced "th" does not exist in Spanish)	dis/this, zat/that
7. t/voiceless th (voiceless "th" does not exist in Spanish)	tink/think
8. schwa sound inserted before word initial consonant clusters	eskate/skate espend/spend
9. words can end in 10 different sounds: a, e, I, o, u, l, t, n, s, d	may omit sounds at the ends of words
10. when words start with /h/, the /h/ is silent	'old/hold, 'it/hit
11. /r/ is tapped or trilled (tap /r/ might sound like the tap in the English word "butter,")	
12. there is no /j/ (e.g., judge) sound in Spanish; speakers may substitute "y"	Yulie/Julie yoke/joke
13. frontal /s/--Spanish /s/ is produced more frontally than English /s/	Some speakers may sound like they have frontal lisps
14. the ñ is pronounced like a "y" (e.g., "baño is pronounced "bahnyo")	
Spanish has 5 vowels: a, e, I, o, u (ah, E, ee, o, u) and few diphthongs. Thus, Spanish speakers may produce the following vowel substitutions:	
15. ee/I substitution	peeg/pig, leetle/little
16. E/ae, ah/ae substitutions	pet/pat Stahn/Stan

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 68. Reprinted with Permission.

ARTICULATION DIFFERENCES COMMONLY OBSERVED AMONG SPANISH SPEAKERS

LANGUAGE CHARACTERISTICS	SAMPLE ENGLISH UTTERANCES
Omission of plurals	Here are 2 piece of toast. I got 5 finger on each hand.
Omission of copula	He going home now. They eating.
Omission of possessive	I have Phuong pencil. Mom food is cold.
Omission of past tense morpheme	We cook dinner yesterday. Last night she walk home.
Past tense double marking	He didn't went by himself.
Double negative	They don't have no books.
Subject-verb-object relationship differences/omissions	I messed up it. He like.
Singular present tense omission or addition	You goes inside. He go to the store.
Misordering of interrogatives	You are going now?
Misuse or omission of prepositions	She is in home. He goes to school 8:00.
Misuse of pronouns	She husband is coming. She said her wife is here.
Omission and/or overgeneralization of articles	Boy is sick. He went the home.
Incorrect use of comparatives	This book is gooder than that book.
Omission of conjunctions	You __I going to the beach.
Omission, lack of inflection on auxiliary "do"	She__not take it. He do not have enough.
Omission, lack of inflection on forms of "have"	She have no money. We__been the sore.
Omission of articles	I see little cat.

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 81. Reprinted with Permission.

ARTICULATION DIFFERENCES COMMONLY OBSERVED AMONG ASIAN SPEAKERS

ARTICULATION CHARACTERISTICS	SAMPLE ENGLISH UTTERANCES
In many Asian languages, words end in vowels only or in just a few consonants; speakers may delete many final consonants in English.	ste/step li/lid ro/robe do/dog
Some languages are monosyllabic; speakers may truncate polysyllabic words or emphasize the wrong syllable.	efunt/elephant
Possible devoicing of voiced cognates	beece/bees pick/pig luff/love crip/crib
r/l confusion	lize/rise clown/crown
/r/ may be omitted entirely	gull/girl tone/torn
Reduction of vowel length in words	Words sound choppy to Americans.
No voiced or voiceless "th"	dose/those tin/thin zose/those sin/thin
epenthesis (addition of "uh" sound in blends, ends of words)	bulack/black wooduh/wood
Confusion of "ch" and "sh"	sheep/cheap beesh/beach
/ae/does not exist in many Asian languages	block/black shock/shack
b/v substitutions	base/vase Beberly/Beverly
v/w substitutions	vork/work vall/wall
p/f substitutions	pall/fall plower/flower

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 82. Reprinted with Permission.

ARTICULATION AND LANGUAGE DIFFERENCES COMMONLY OBSERVED AMONG ARABIC SPEAKERS

ARTICULATION CHARACTERISTICS	SAMPLE ENGLISH UTTERANCES	
n/ng substitution	son/song	nothin'/nothing
sh/ch substitution	mush/much	shoe/chew
w/v substitution or f/v substitution	west/vest	Walerie/Valerie
	fife/five	abofe/above
t/voiceless "th" substitution or s/voiceless "th" substitution	bat/bath	noting/nothing
	sing/thing	somesing/something
z/voiced "th" substitution	brozer/brother	zese/these
retroflex /r/ doesn't exist	speakers of Arabic will use a tap or trilled /r/	
there are no triple consonant clusters in Arabic, so may have epenthesis	kinduhly/kindly	harduhly/hardly
o/a substitutions	hole/hall	bowl/ball
o/oi substitutions	bowl/boil	foble/foible
a/uh substitutions	snuck/snac	ruck/rack
ee/i substitutions	cheep/chip	sheep/ship
LANGUAGE CHARACTERISTICS	**POSSIBLE ENGLISH ERRORS**	
omission of possessives 's and "of"	That Kathy book. The title the story is…	
omission of plurals	She has 5 horse in her stable. He has 3 pen in his pocket.	
omission of prepositions	Put your shoes.	
omission of form "to be"	She___my friend.	
inversion of noun constructs	Let's go to the station gas.	

Source: Roseberry-McKibbin, C. Multicultural Students with Special Language Needs. Oceanside, CA: Academic Communication Associates, 1995, p. 117. Reprinted with Permission.

AUGMENTED COMMUNICATION

ASHA Augmented Communication Document
http://www.asha.org/NR/rdonlyres/2C21C083-CA9C-484E-959E-9A5E7014D3E0/0/v3TRaac.pdf

DYSPHAGIA/DISORDERED SWALLOWING

In the management of swallowing disorders of children in educational settings the following steps should be followed after establishing a team to consult in the management of the disorder.

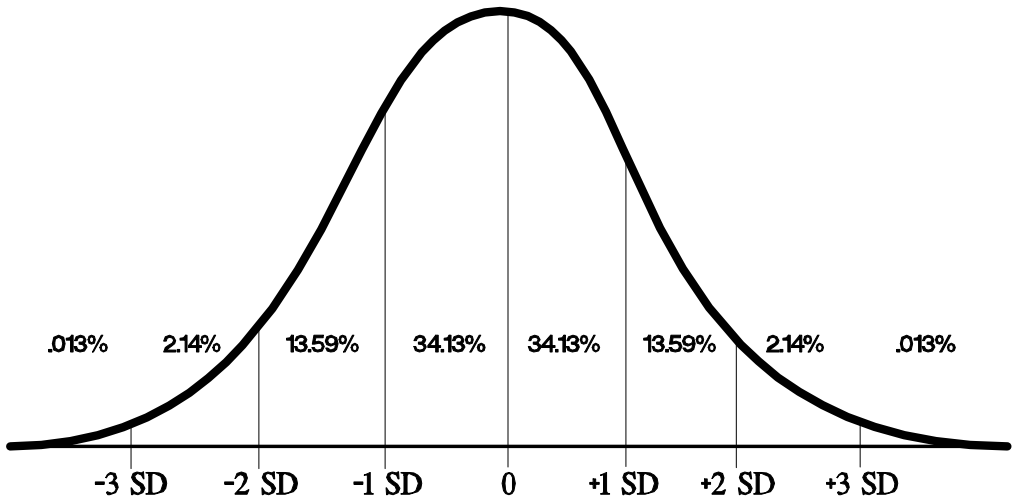
1. Follow the LEA's policy in dealing with students with medical concerns.

2. Adhere to the medical recommendation for feeding/positioning/diet and consistency.

3. Determine and document that the swallowing disorder has a negative impact on the student's education.

Note: Many speech-language pathologists have had training in the treatment of dysphagia, and may be asked to serve as a member of the team that assists students who have swallowing problems. The treatment of swallowing problems is not to be considered as a speech-language pathology service, however, unless the swallowing problem interferes with communication and, as stated above, has a negative impact on the student's education. To learn more about setting up a tema in your school please see:
http://lshss.asha.org/cgi/content/abstract/31/1/62

The Normal Curve, Percentiles, Standard Scores, and Stanines



Stanines	↔ 1	↔ 2	↔ 3	↔ 4	↔ 5	↔ 6	↔ 7	↔ 8	↔ 9 ↔
T-scores	20	30	40	50	60	70	80		
z-scores	-3.0	-2.0	-1.0	0	+1.0	+ 2.0	+3.0		
Percentiles		2	16	50	84	96			

Standard Scores:

IQ (SD = 15)	55	70	85	100	115	130	145
CELF-3	55	70	85	100	115	130	145

NORMALIZED STANDARD SCORE CONVERSIONS FROM PERCENTILE RANKS

PERCENTILE RANK	STANDARD SCORE	PERCENTILE RANK	STANDARD SCORE	PERCENTILE RANK	STANDARD SCORE
99	135	66	106	33	93
98	131	65	106	32	93
97	128	64	105	31	93
96	126	63	105	30	92
95	125	62	105	29	92
94	123	61	104	28	91
93	122	60	104	27	91
92	121	59	103	26	90
91	120	58	103	25	90
90	119	57	103	24	89
89	118	56	102	23	89
88	118	55	102	22	88
87	117	54	102	21	88
86	116	53	101	20	87
85	116	52	101	19	87
84	115	51	100	18	86
83	114	50	100	17	86
82	114	49	100	16	85
81	113	48	99	15	84
80	113	47	99	14	84
79	112	46	98	13	83
78	112	45	98	12	82
77	111	44	98	11	82
76	111	43	97	10	81
75	110	42	97	9	80
74	110	41	97	8	79
73	109	40	96	7	78
72	109	39	96	6	77
71	108	38	95	5	75
70	108	37	95	4	74
69	107	36	95	3	72
68	107	35	94	2	69
67	107	34	94	1	65

AUDITORY ASSESSMENTS
HEARING SCREENING
Purposes and Rationale

The goal of hearing screening is to identify peripheral hearing impairments that may interfere with the development of speech and/or language in students with suspected speech or language impairments who have been referred for eligibility determination for special education services. The screening for hearing impairment is a pass-refer procedure to identify those students who require further audiological evaluation or other assessment. School-age children with even minimal hearing impairments are at risk for academic and communicative difficulties. General education hearing screening is part of the early intervention process and should be completed prior to initiation of the speech and language referral. If hearing screening has not been completed through the general education mass screening process, screening by the speech-language pathologist does not require individual parental permission.[4] **However, Speech-Language Pathologists who conduct hearing screenings MUST be supervised by an audiologist. Please consult the North Carolian Borad of Examiners Web Site at http://www.ncboeslpa.org/ for regulations and ncpublicschools.org/ec/exceptionality/speech for current guidelines for hearing screening**

ASHA Acoustic Environments in Schools Document
http://www.asha.org/NR/rdonlyres/4110318E-8F48-4DB4-8938-9BA15EB8BAAC/0/V2GLAcoustics.pdf

AUDITORY PROCESSING DISORDERS

Auditory processing is a broad term which includes auditory perception (selective attention, discrimination, memory, sequencing, association and integration) and other auditory processing abilities.

Auditory Processing Disorder (CAPD) has been defined as a deficit in the auditory pathways of the brain that results in the inability to listen to or comprehend auditory information accurately even though the child may have normal intelligence and normal hearing sensitivity (Keith, 1986). According to federal and state, an auditory processing disorder is not recognized as an area of disability for special education purposes. Some specialists in the field suggest that children with APD and other auditory processing disorders generally exist as a subset of children who have receptive language and learning difficulties. In other words, the auditory processing disorder deficit may be one part of a continuum of problems. It is certain that study in this area will be ongoing because of the many differences of professional opinion regarding APD. In the meantime, research documents that characteristics of APD often coincide with characteristics of receptive language disorders. The speech-language pathologist should assess language skills and consult with other

[1]Parental consent is not required before: 1) Reviewing existing data as part of an evaluation or a reevaluation or, 2) Administering a test or other instrument that is administered to all children unless consent is required of parents of all children.

professionals regarding the adverse effects on learning that any processing disorder may be causing. Collaboration with other specialists (Audiologists, Psychologists, Special Education Teachers and General Education Teachers) is important in the appropriate diagnosis and intervention for the student.

After determing that APD has manifest itself as an educationally significant receptive language disorder the following resource from ASHA may be of assistance in manging this disorder:
http://convention.asha.org/2005/handouts/293_Geffner_Donna_072622_111505015102.PPT#709,49,Slide 49

Selective Mutism, sometimes termed Failure to Communicate

Studetns who fail to communicate may or may not be the responsibility of the Speech-Language Pathologist. In many cases it may be appropriate to refer these children to counseling, psychological or psychiatric services to resolve the underlying root of the communication disorder. For more information on this topic please consult the ASHA resource:
http://www.asha.org/public/speech/disorders/Selective-Mutism.htm

Related Services

Students who are identified with a disability (i.e., learning disabled, autistic, mentally handicapped) receive services through the Individuals with Disabilities Education Act (IDEA). These students require specially designed instruction through an Individualized Education Plan (IEP). IDEA defines the term related services: "means transportation, and such developmental, corrective, and other supportive services as are required to assist a child with a disability to benefit from special education, and includes speech-language pathology and audiology services, psychological services, physical and occupational therapy, recreation, including therapeutic recreation, early identification and assessment of disabilities in children, counseling services, including rehabilitation counseling, orientation and mobility services, and medical services for diagnostic or evaluation purposes. The term also includes school health services, social work services in schools, and parent counseling and training."

There is no eligibility requirement to receive a related service. Once a student is identified as having a disability under IDEA, s/he may receive related services(s) that is/are needed for s/he to support the primary service and support his/her educational performance. Related services may include speech-language therapy, occupational therapy, physical therapy, or any other related service as stated in IDEA.

Speech-Language Pathology as a Related Service: The following steps should be utilized when looking at speech-language pathology as a related service.

Request: The team expresses a concern with a student's communication skills. As a result, a meeting is held to discuss the concerns. At that time, additional data may be requested. Additional data may include: observation of the student, review of previous records, a speech-language screening/evaluation and/or completion of the Communication Profile.

Communication Profile: The Communication Profile is a communication skills checklist that does not have to be completed on every student. It is done on an individual basis. The checklist may be completed by the teacher, parent, caregiver, SLP, or anyone involved with the child. Upon completion of the checklist, the SLP compiles the data obtained and completes Section B, which is a summary of the results of the profile.

Review of Data: The SLP presents the information on the communication skills of the student to the team for discussion.

Present Level of Performance: The team completes the Present Level of Performance based on the information gathered, which may include standardized assessment information, observations, summary of the Communication Profile.

Goals and Objectives: Goals and objectives are developed by the team based on the student's present level of performance. A student does not have to be "eligible" for speech-language as a related service based on standardized test results. The team needs to determine that the service is necessary for the student to benefit from special education. The need for speech-language pathology as a related service depends directly on the IEP determined course of study and the IEP goals and objectives. The IEP goals and objectives would address any of the four areas of speech-language pathology: articulation, language, voice and/or fluency.

Service Delivery Models: Service delivery is based on the IEP goals and objectives. No one service delivery model is right for every student or every disability. The SLP may not even be involved in the service delivery, as many communication goals are best carried out in a classroom setting or other daily living environments. Some settings allow the opportunity for social and peer interactions that may not happen in a direct therapy environment. In one case, the student may need direct service from the SLP to reach the goals and objectives. In another situation, the goals and objectives would be achieved in the classroom setting with the SLP working with the student in a team (collaborative) approach or working with the teachers and parents (consultative).

Service Delivery Models

Every time an Individual Education Program is written for a student the team should consider the entire range of service delivery models from limited to maximum service delivery time. To support the student's right to a free appropriate public education FAPE in the least restrictive environment LRE the range of amount of time in special education and location where special education will be provided should be considered. Some students will benefit from class room based intervention while others may best be served in the lunch room, playground or speech therapy class room. Some students will require a block of one hour of intervention, while some will most benefit from 10 minutes every day or two half hour sessions per week. The range of amount of time and place should be considered for every student.

The document, **School Speech-Language Pathology and Audiology Facilities Technical Report: Work Conditions, Materials and Equipment***, part of the ASHA 2000-2003 Focused Initiatives on School-Based Programs and Services, was a collaborative effort of the ASHA Special Interest Division 16 School-Based Issues and the Educational Audiology Association (EAA). Committee members included Sally Disney, Nena Germany-Greer, Erin Dyer Olson (co-chair), and DeAnne Wellman Owre (co-chair) representing ASHA Division 16, and Gail Gegg-Rosenberg representing the EAA. Kathleen Whitmire (ASHA's director of school services in speech-language pathology) served as project coordinator; Monitoring Vice President was Alex Johnson.*

Section I. Introduction

Adequate working conditions and facilities in schools for speech-language pathologists (SLPs) and audiologists have always been acknowledged as being essential for creating an optimal assessment and/or learning environment for the child, but the quality of work settings and equipment varies widely in schools around the country. Implementation of the *Individuals With Disabilities Education Act Amendments of 1997* (IDEA) increased school administrators' awareness of the importance of providing adequate conditions for speech-language and hearing services. In addition, the Americans with Disabilities Act (ADA) required that facilities where services are provided must accommodate the special needs of children in attendance. In some cases, this resulted in greatly improved facilities. In many other instances, however, this awareness was not always translated into action. Reasons for this lack of action include: overpopulation of some schools has contributed to competition for workspace; many older schools were not designed with dedicated rooms or adequate accommodations within the classroom and have been difficult to convert structurally; and/or, fiscal constraints have prevented improvements in school working conditions (Neidecker, Blosser, 1993). Whatever the reasons, apathy is common among school administrators and school boards regarding inadequate assessment/intervention environments and equipment for speech/language and hearing services.

According to the Ohio Study (June 1999), Availability of Therapists to Work in Ohio Schools, SLPs listed lack of designated space to provide treatment as a definite drawback to working in the school setting. This was corroborated in the *ASHA 2000 Schools Survey* (ASHA 2000): 35.2% of the 2,133 SLP respondents listed "inadequate work space and facilities" as being one of the school SLP's greatest challenges. Results of the 2001 ASHA Survey on Critical Issues and Member Needs (a Web-based survey of ASHA members), indicated that lack of adequate workspace/environment and equipment were areas of significant concern in the school setting.

In 1996, the ASHA Housing Subcommittee on Speech and Hearing Services in the Schools wrote the document, *Recommendations for Housing of Speech Services in the Schools (*ASHA, 1967). This document not only updates the original, but also expands the scope of those recommendations to be in compliance with IDEA, 1997. This document focuses on various settings, including the SLP treatment, room, hearing screening room, and the regular education classroom. The primary service delivery model considered was the pullout model for evaluation and direct service delivery. Other models—including the consultation/collaboration, and the in-

class model—were considered as they related to the clinician's need for a separate, individual, private workspace. Facility requirements specific to assessment and evaluation were reviewed, as were age/physical size of students, general and varied sizes of groups or classrooms, and purpose of the workspace.

This document is to serve as a reference for SLPs, audiologists, parents, teachers, administrators, school boards, architects, and building contractors. It contains minimum requirements for creating the optimal learning and assessment environments for the student and is designed to be a substantiating reference document when building a new school, redesigning an already existing structure, and/or advocating for improvement of facility work conditions. The ultimate goal of this document is to be a reference guide for providing a work setting, assessment, and learning environment that will contribute to the overall success of the student.

Section II. Speech-Language Pathology Room, Equipment and Furniture

Speech-language pathologists must have appropriate facilities to meet program goals and student needs. Service areas used for special education classrooms must meet the same standards and quality as regular education classrooms. IDEA '97 and Americans With Disabilities Act (ADA) require that facilities where services are provided accommodate the special needs of the children in attendance. IDEA '97 states; "any construction of new facilities or alteration of existing facilities…must comply with the requirements of the Americans With Disabilities Accessibility Guidelines for Buildings and Facilities." Also, each state has rules and regulations that address facilities for personnel serving students with disabilities. Some local school districts and professional organizations have developed recommendations for the physical facilities and equipment necessary to operate programs effectively. It is important for SLPs working in the schools to be aware of these local and state requirements and/or recommendations so they can advocate for appropriate facilities.

These suggestions should be considered when determining appropriate facility needs:

Speech-Language Pathology Room

1. The space provided for SLP services in a regular school building should be located in the instructional area of the building that houses children of comparable age. It should be located in an area that ensures privacy, confidentiality, and sensitivity to student needs. The room should be used by only one professional at a time and should be designated for the exclusive use of the SLP during all times that the SLP is scheduled to be in the building. Individual state laws and regulations can dictate where services can be provided in religious private schools; some states allow speech and language services to be provided in religious school buildings in neutral rooms with no religious icons.

2. When services are provided outside the classroom setting, the service area should be reasonably exclusive and large enough to provide the full range of evaluation and

instructional activities needed to provide services to a caseload. These services may include evaluation and testing of individual students, pullout treatment for individuals and/or groups, meeting space for team meetings and confidential conferences with teachers and parents, as well as activities to prepare for treatment, prepare and maintain assistive technology support, and case management.

3. Each speech and language service area should be readily accessible to nonambulatory students and should accommodate the special needs of students with disabilities as mandated by the ADA. This includes students who are physically challenged, and students with low vision or neurological problems.

4. The facilities shall be adequately heated and cooled, lighted and ventilated, and provided with sufficient electrical outlets.

5. Speech-language services should be provided in an environment that ensures student safety and welfare; is in compliance with applicable building and safety codes; and includes universal precautions, infection control, risk management, and emergency preparedness (Standards and Implementation for Professional Service Programs in Audiology and Speech-Language Pathology, ASHA, January 1, 2002).

Equipment and Furniture

1. Each speech-language service area should be large enough to accommodate the use and storage of special equipment and teaching materials.

2. There should be an adequate number of age-appropriate desks/tables and chairs to meet the physical needs of students; and, for preschool, furniture and equipment to provide a developmentally appropriate curriculum.

3. The facility should be equipped with instructional aids (mirror, chalkboard/erase board, and bulletin board) that meet the needs of the students' individualized education programs (IEPs) and adequate office equipment and supplies. SLPs should be provided materials, technology devices, Internet access, computer and technology support, as well as software for providing, managing, and monitoring services.

4. Each SLP should have available current evaluation and instructional materials and equipment appropriate for the age, developmental ability, and disability condition of each student. These include a variety of multimedia learning/curriculum materials, tests, and equipment, readily available for use to meet the individual interests and learning abilities of the students receiving services.

5. The acoustic level of the SLP's service area should meet the standard criteria for noise and reverberation proposed by the Acoustical Society of America (ASA) through the American National Standard Institute (ANSI). See the section on classroom facilities for more details.

6. School districts should make available one portable individual audiometer for the SLP to use for screening; this should be checked and calibrated annually in accordance with minimum audiologic standards. Best practice would include impedance screening by an SLP trained by an audiologist. Also, there should be available one portable tape recorder and a supply of tapes; one portable auditory training unit, computer, and printer; a hearing aid battery tester; and assistive technology devices. There should be adequate maintenance and prompt repair of all special equipment utilized for children with disabilities.

Section III. Confidentiality

The ASHA Code of Ethics (see Appendix I), individual state licensure boards, and state boards of education mandate that speech-language pathologists and audiologists maintain confidentiality of student/client information. Furthermore, Family Educational Rights and Privacy Act Regulations (FERPA) have very specific requirements for record keeping for educational agencies and institutions.

IDEA '97 has strong language protecting the confidentiality of student records:

(a) Federal Regulation: 34CFR & 300.572 Safeguards states:
"Each participating agency shall protect the confidentiality of personally identifiable information at collection, storage, disclosure, and destruction stages."

(b) Federal Regulation: 34CFR & 300.126 Confidentiality of personally identifiable information states: "Each State must have on file in detail the policies and procedures that the State has undertaken to ensure protection of the confidentiality of any personally identifiable information collected, used, or maintained under Part B of the Act." (IDEA '97)

It is important that each SLP have a facility that permits privacy suitable for private consultation, and access to a telephone in an area where scheduling, parent contacts, and confidential conversations regarding students can be completed relatively free from distractions. The area should be for exclusive use of the SLP when the SLP is scheduled in the building. Space should be provided for record storage, including a locking filing cabinet with a key.

For a great deal more information on this topic and many others, please access the ASHA web site at: www.asha.org.

Section IV Workload

Recently ASHA has moved from considering the number of children a speech-language pathologist sees (caseload size) to the many duties accomplished by these professionals in schools (workload) To learn more about this topic please visit: http://www.asha.org/NR/rdonlyres/13845ECE-1CC1-46B4-8EA8-D17D19E7410C/0/v3GLWorkloadAnalysis.pdf

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

American Speech-Language and Hearing Association. (2001). Roles and responsibilities of speech-langauge pathologists with respect to reading and writing in children and adolescents (position statement). Rockville, MD: Author

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

Ad Hoc Committee on Reading and Written Language Disorders

POSITION STATEMENT

It is the position of the American Speech-Language-Hearing Association (ASHA) that speech-language pathologists (SLPs) play a critical and direct role in the development of literacy for children and adolescents with communication disorders,[1] including those with severe or multiple disabilities. SLPs also make a contribution to the literacy efforts of a school district or community on behalf of other children and adolescents. These roles are implemented in collaboration with others who have expertise in the development of written language and vary with settings and experience of those involved.[2]

The connections between spoken and written language are well established in 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,[3] and (d) instruction in spoken language can result in growth in written language, and instruction in written language can result in growth in spoken language.

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 in using language strategically to communicate, think, and learn. These fundamental connections necessitate that intervention for language disorders target written as well as spoken language needs.

[1] The scope of practice for SLPs includes literacy assessment and intervention for adults (with 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.

[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.

SLPs' knowledge of normal and disordered language acquisition, as well as their clinical experience in developing individualized programs for children and adolescents, prepare them to assume a variety of roles related to the development of reading and writing. Appropriate roles and responsibilities for SLPs include, but are not limited to, (a) preventing written language problems by fostering language acquisition and emergent literacy; (b) identifying children at risk for reading and writing problems; (c) assessing reading and writing; (d) providing intervention and documenting outcomes for reading and writing; and (e) assuming other roles, such as providing assistance to general education teachers, parents, and students; advocating for effective literacy practices; and advancing the knowledge base. These roles are dynamic in relation to the evolving knowledge base and have implications for research and professional education.

TECHNICAL REPORT

Background

This technical report and accompanying position statement and guidelines were drafted by an ad hoc committee formed by the American Speech-Language-Hearing Association (ASHA). Members of the Ad Hoc Committee on Reading and Written Language Disorders were Nickola Wolf Nelson (chair), Hugh Catts, Barbara J. Ehren, Froma P. Roth, Cheryl M. Scott, and Maureen Staskowski. First Nancy Creaghead, then Alex Johnson, Vice President for Professional Practices in Speech-Language Pathology, provided guidance and support. Roseanne P. Clausen provided ex officio assistance from the National Office, and Diane Paul-Brown and Susan Karr served as consultants to the committee.

The position statement was motivated by the need for (a) speech-language pathologists (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 advocacy for the direct role SLPs should play in providing literacy instruction; (c) collaborative partnerships between SLPs and teachers to foster literacy acquisition for general education students at risk for or experiencing reading and writing disorders; and (d) responses to practical questions from ASHA members about roles and responsibilities.

The position statement acknowledges the background and training that prepare SLPs to support 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 formulation skills for using higher-order semantic and syntactic forms; and (d) knowledge of literate discourse structures for comprehending and producing coherent spoken and written texts. This statement 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 position statement reflects an extensive body of research that confirms the importance of adequate awareness of the sound structure of words, verbal memory and retrieval, and general language knowledge in learning to read (e.g., Blachman, 1997; Catts & Kamhi, 1999). It is designed to narrow the gap between research and practice, building on research supported by the National Institute of Child Health and Human Development (Lyon, 1995, 1999; Lyon, Alexander, & Yaffe, 1997; Lyon & Moats, 1997) and a report of the National Research Council (Snow, Burns, & Griffin, 1998). It addresses the National Education Goals (U.S. Department of Education, America Reads Challenge, 1997), which emphasize that all children in the United States will start school ready to learn, and that every adult American will be literate. It also responds to concerns raised by publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983) and the subsequent national standards movement (Kendall & Marzano, 1997). Finally, it is consistent with requirements of the Individuals with Disabilities

Education Act of 1997 (Public Law 105-17) that special education and related services should be linked to progress within the general education curriculum.

The position statement and accompanying guidelines also respond to requests from ASHA members to clarify the roles that SLPs should play in addressing reading and writing. They are designed to support the notion that professionals can collaborate with school administrators, teachers, other professionals, and parents to develop programs for promoting emergent literacy and literacy skills among general education students as well as those with identified spoken language and literacy problems. They are intended to assist ASHA members in advocating for quality services, developing programs, and fostering collaborative relationships in the area of literacy instruction. The technical report acknowledges that changes in speech-language pathology practice patterns (e.g., caseload priorities and size, service delivery models) and academic program content may be necessary to achieve literacy goals. It also acknowledges the essential collaborative nature of these roles and responsibilities.

The technical report summarizes the literature that establishes the scientific base for the position statement and provides the background for the guidelines. For comprehensive literature reviews, the reader is referred to several recently published sources (Blachman, 1997; Catts & Kamhi, 1999; Simmons & Kameenui, 1998; Snow et al., 1998; Speece, Roth, Cooper, & De La Paz, 1999; van Kleeck, 1994). The technical report also outlines the professional knowledge base that prepares SLPs to make unique contributions to collaborative teams of educators and other specialists concerned with the mutual goal of helping all individuals become competent literate language users.

The Nature of Literacy

Defining Literacy

Literacy, as defined in the National Literacy Act of 1991 (Public Law 102-73) for speakers of English is "an individual's ability to read, write, and speak in English and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and to develop one's knowledge and potential." Without reference to English, the same definition applies equally to speakers of other languages.

This broad definition is consistent with school curricula and national and state standards. Significantly, it is inclusive of listening and speaking, as well as reading and writing. Although the present document focuses on reading and writing, a complete understanding of literacy requires an appreciation of literate uses of spoken as well as written language and the relationship between them. Literate language uses, both spoken and written, are often more formal and more decontextualized, in that more of the meaning is in the words than in the nonverbal context (e.g., Cazden, 1988; Cummins, 1984; Wells, 1986). In addition, literate language emphasizes different types of sentence- and text-level complexity (Halliday, 1987; Scott, 1994).

Defining Reading

Reading can be defined as the processes by which one constructs meaning from printed symbols. Although a number of interrelated perceptual, linguistic, and cognitive processes are involved, reading can be divided into two general components—decoding and comprehension. Gough and his colleagues termed this a "simple view" of reading (Gough & Tunmer, 1986; Hoover & Gough, 1990). Decoding refers to word recognition processes that transform print to words. It includes both direct routes (visual, orthographic) and indirect ones (sound-symbol correspondence). Comprehension refers to processes by which language is understood and interpreted. It involves construction of meaning at the word, sentence, and discourse levels. The simple model of reading emphasizes the equal importance of decoding and comprehension. Decoding in the absence of comprehension is not reading. Likewise, attempted comprehension without adequate decoding is not reading. The simple view has been appealing to practitioners and researchers alike (Kamhi, 1999).

The simple view of reading clearly illustrates that reading is dependent, for the hearing population, on spoken language. Reading takes advantage of the linguistic knowledge and processes that have evolved primarily for speaking and listening (Catts & Kamhi, 1999). In recognizing written words, the reader uses the rich lexical knowledge that has been developed through spoken language. This is particularly true in the early stages of reading acquisition, when the words children read are ones they already know and use in their spoken language. Decoding processes allow readers to access the meaning of these words based on familiar sound patterns (Liberman, 1982; Liberman & Shankweiler, 1985).

Reading comprehension also shows considerable overlap with spoken-language comprehension in that readers and listeners use similar linguistic knowledge and higher order processes. Proponents of the simple view of reading claim that once words have been recognized, reading and listening are much the same (Gough & Tunmer, 1986). Other researchers emphasize that printed language is not just speech written down, but differs in manner of complexity, style, and level of decontextualization; therefore, written language cannot be processed in exactly the same manner as spoken language (e.g., Cazden, 1988; Halliday, 1987; Perfetti, 1985). It involves higher level thinking processes (Perfetti, 1986).

Reading and listening also differ in their contexts of use. For example, speaking and listening typically involve social interaction with participants who share time and space, each having some control over the content of what is said. Reading, on the other hand, is usually an individual activity, in which authors and readers are remote in time and space. In particular, written-language communication lacks the immediate social context and negotiation of content found in spoken-language interactions. As a result, some of the higher order comprehension processes employed in reading differ from those involved in spoken-language comprehension (e.g., Catts & Kamhi, 1999; Gough & Juel, 1991; Just & Carpenter, 1987; Wallach & Butler, 1994).

Defining Writing

Written-language production can be described from two perspectives—**process** and **product.** Both are important when considering the developmental needs of students.

Writing processes include the cognitive-linguistic and motor acts that are involved when generating written texts. They include planning (prewriting), organizing, drafting, reflecting, revising, and editing (Hayes & Flower, 1987), as well as forming letters and sequences of letters into words. When engaged in the process of writing, mature authors view the overall written task, such as producing a report, writing a story, or writing a letter to the editor, as a problem to be solved, with the overall purpose of communicating ideas in the most effective manner (Emig, 1977; Nystrand, 1982). As in spoken communication, writers produce texts for such purposes as informing, entertaining, or triggering some other response in their communication partners; writers, however, lack the immediate feedback and joint construction of meaning that occur in participatory spoken-language interactions. Rather, the relatively solitary processes of writing often must be accomplished with an imaginary audience in mind. The processes of writing also are recursive rather than linear, in that mature writers, in particular, plan and revise in cycles throughout the text-generation process (Hayes, 1996; Hayes & Flower, 1987). In these ways, writers benefit from the increased time to reflect, rework, and polish a piece of discourse in contrast to the immediate demands of on-line spoken communication.

Written products are the result of the writing processes. A piece of writing (a product) can be examined at several levels. Products may be described at the word level (e.g., word choice, spelling), sentence level (e.g., grammar, complexity, style), and text level (e.g., discourse structure, cohesive devices, coherence). They also may be described relative to writing conventions (e.g., capitalization, punctuation, and paragraphing), and relative to communication functions (e.g., to entertain or inform) and effectiveness (e.g., evidence that the author has appropriately judged and met audience information needs).

Written products vary widely in terms of length and complexity, from single-word labels and lists to multi-volume literary works. Functional written language is produced with less attention to style than formal literate texts. Adult **functional** writing includes such daily tasks as writing checks, making lists, or filling out applications. Modern lists of functional written language include email messages. Although email communication shares many features with informal spoken-language interaction, anyone who has had communication breakdowns over the Internet has experienced how the lack of paralinguistic information and an immediate partner can lead to pragmatic difficulties. Production of written language is considered truly **literate** when an author produces texts of some length that others read for information or pleasure. For school children, writing may vary along the functional-literate continuum when teachers, for example, require written responses to questions on tests and worksheets compared with giving assignments to write stories, poems, or individualized reports.

Planning, generating, and revising are largely private mental acts, making it difficult to construct precise models of what authors do when they write. Researchers studying the process of writing have often asked authors to think aloud while writing (Emig, 1971; Hayes & Flower, 1980, 1987). Observation of young authors at work using think-aloud or other protocols can yield insights about (a) planning and organizing strategies, (b) the ability to remain focused for an extended period and to reflect on written work, and (c) decisions to revise or edit based on rereadings or social interactions with peers regarding preliminary drafts (Graham & Harris, 1999; Harris & Graham, 1996b). In addition, written products can yield information about children's linguistic concepts and abilities at the word level (including grapho-phonemic and morphemic components), sentence level (e.g., notions about grammar as revealed in punctuation), and text level (e.g., notions about how discourse is organized and structured according to genre and purpose) (Scott, 1999).

Development of Reading and Writing

Reading

The preparation for reading begins long before children enter school (Snow et al., 1998). Children who live in literate cultures typically experience abundant print activities and print materials in the home and other settings (Catts & Kamhi, 1999; Heath, 1982; McGee & Richgels, 1990; Ninio, 1983; van Kleeck, 1990; van Kleeck, Alexander, Vigil, & Templeton, 1996). Literacy is fostered as children gradually become aware of the uses of print in their environment and opportunities to use print. Children learn concepts about print, such as how a book is held, where to begin, that the words tell the story, and that print is read from left to right, as well as other mechanics of the writing system (Stuart, 1995). They begin to recognize print in their environment. They learn what constitutes a story (Sulzby, 1985a), and they develop phonological awareness and alphabetic knowledge--- skills that are critical aspects of learning to read (e.g., Brady, 1997; Liberman, Shankweiler, Fischer, & Carter, 1974; Swank & Larrivee, 1998). In these many ways, interactions surrounding print lay the foundation for written-language development.

As children begin to learn to decode words, they go through a number of stages (Catts & Kamhi, 1999; Ehri, 1991). They first associate spoken words with features of print in context, such as the logos of brand names, referred to as the **logographic stage**. As children enter school and formal reading instruction, they begin to use sound-letter correspondences to recognize words. When children successfully use some of the letter-sound cues in words, they have attained the **transition stage**. For example, a child who recognizes the first letter of a word and guesses a word having the same initial sound has begun to apply the alphabetic principle (that letters represent sounds in the English language). During this transition stage, some children also begin to develop an early sight-word vocabulary for high-frequency words they recognize as a whole, although they are not yet proficient at decoding unfamiliar words. When children learn to use letter-sound relationships to decode entire new words, the **alphabetic stage** has been reached. Of course, this alone does not help children achieve fluent reading. Children must develop a large repertoire of sight words that can be recognized without decoding each letter, including a variety of irregularly spelled words. Gradually,

children learn to use spelling patterns to recognize familiar chunks in a word. This stage, known as the **orthographic stage**, is crucial to achieve **automatic word recognition**, which is the final stage in the development of word recognition.

Although these word-recognition stages describe general developmental trends, some believe they oversimplify, at best, and may even obscure the developmental process of reading. For example, at a given point for a given child, the mechanism of word recognition for various words will be at different stages. Words that the child encounters frequently will be processed orthographically, whereas less common words still require sound-by-sound decoding. According to the "self-teaching hypothesis" suggested by Share and Stanovich (1995), these lower frequency words then join the ranks of the automatically recognized words when phonological awareness and application of the alphabetic principle help the child move them to the automatic level. Such self-teaching accounts help to explain how most children come to read many more words than they are directly taught and how fluency is attained seemingly overnight for some children.

For most children, achieving this level of automaticity in word recognition occurs after explicit instruction in learning to read, as well as considerable practice. Beginning readers start decoding words by attacking individual letters, but more advanced readers pronounce groups of letters without sounding out each letter (Ehri, 1997). Children acquire this skill as they gain experience in reading different words that share common letter patterns (Treiman, Goswami, & Bruck, 1990). Most children become facile decoders in the early grades; however, some children need continued, systematic, and explicit instruction over a longer period of time to achieve automaticity in word recognition. In fact, difficulty in acquiring accurate and fluent word-identification abilities is the core deficit in a specific reading disability, sometimes referred to as **dyslexia** (Stanovich, 1988; Torgesen, Wagner, & Rashotte, 1997). By third grade, children are expected to demonstrate automaticity in recognizing words so that they can devote their attention and energy to developing and fine-tuning their comprehension skills. This also is the time at which many children are identified as needing special education services for literacy problems. Signs that children are at risk for difficulty can be detected much earlier, however, by considering their phonological and other spoken-language abilities (Catts, Fey, Zhang, & Tomblin, 1999).

Comprehension of spoken language lays the foundation for reading comprehension (Sulzby, 1985b). In the preschool years and early grades, children expand their use and comprehension of language to understand the world and their experiences. They are exposed to narrative and expository texts and learn to monitor what makes sense and what does not. They learn to question and to respond to texts that are read to them during many important literacy experiences at home and at school. In their early elementary years, they learn to develop and test hypotheses about what will happen next as they gain skill for comprehending more elaborate narrative structures (Ruddell & Ruddell, 1994; Westby, 1999).

By the end of third grade students are gaining flexibility and self-monitoring skills (Snow et al., 1998). As students move into upper elementary and secondary schools, they gradually expand their knowledge of narrative and expository text structures, enhancing comprehension. They acquire important skills for comprehending higher level texts, including how to use schema

knowledge and metacognitive processing abilities (Westby, 1999). Such skills enable them to read texts with different styles and genres that are less familiar in construction and linguistically more complex. Secondary students learn to adjust their reading depending on the varied demands of texts and reading purposes. Maturing readers recognize when they are having difficulty understanding and they know how to implement such metacognitive strategies as re-reading or asking a question to facilitate comprehension (Brown, 1980; Bruce, 1980; Flavell, 1979; Paris, Wasik, & Turner, 1991).

Students from upper elementary grades through college are expected to read textbooks, reports, and other lengthy texts to learn a large part of their curriculum. The ability to read informational text containing many unfamiliar words and limited context is often assumed. Abstract, ambiguous, technical, and figurative material in texts also must be understood and applied. To meet these challenges, good readers self-monitor their comprehension and use repair strategies to help themselves understand difficult text. They also formulate questions regarding the text, taking the learning process beyond the text into their own lives and applying the knowledge learned (Brown, 1980). Adolescents also are expected to demonstrate knowledge gained through reading in written form (Scott, 1994). Students at the secondary level must demonstrate mastery of skills across disciplines, much of which relies on intact spoken- and written-language skills (Ehren, 1994).

Writing

A child's early experiences with print serve writing as well as reading (van Kleeck, 1995, 1998). In print interactions, the fundamental discovery that a child must make is that writing is a second-order symbol system for "drawing" speech (Ferreiro, 1984), compared with speech itself, which is a first-order symbol system for representing objects and events. Early writing is almost always tied to pictures, in the form of labels for objects, and later, through multi-word descriptions of objects and events. These labels and short sentences become more "readable" as spelling progresses (Chapman, 1994). Even as emergent writers, many children are forming accurate ideas about why people write (e.g., to write notes, tell stories, do homework).

Some children enter kindergarten capable of writing a few words. A child should be a conventional writer by the end of the first grade. Conventional writing in this context is defined as the ability to produce connected discourse (at least a few sentences in length) that can be read by someone else without too much difficulty (Sulzby, 1992, 1996). From that point on, however, the developmental course of writing is a long one.

In early elementary grades, children write sentences that are shorter than those they say, and their writing is likely to contain grammatical errors that are not characteristic of speaking (Scott, 1999). Eventually, as spelling becomes more automatic, children's written sentences are equivalent in length to those they speak. By late elementary grades, the length of children's written sentences exceeds their spoken utterances, as writing takes on an increasingly literate lexicon and grammar (Kroll, 1981).

Students find planning and revising very difficult until well into the secondary school years (Bereiter & Scardamalia, 1987). In the later school years, writing competence is difficult to separate from academic instruction and experience. While most high school seniors are capable of writing well-formed narrative and informational texts, persuasive writing remains difficult (Applebee, Langer, Mullis, Latham, & Gentile, 1994).

Spelling

To be a fluent writer, one must be a fluent speller. Like reading, the roots of spelling begin several years before formal spelling instruction. Read (1971, 1986) was among the first to capture the systematic and even creative attempts of emergent writers—a type of writing he called "invented spelling." Progressing from scribbles and letter-like forms, preschool children discover that writing "draws" speech, and as a result, begin to use some letters that are accurate (or close) representations of the phonetic properties of speech. Highly salient consonants in initial position of words are best represented in invented spelling, whereas harder-to-hear sounds, such as nasals and vowels, are frequently omitted. That the phonetic properties of sounds are appreciated by young children is evident in the nature of their misspellings (e.g., a common misspelling of the *tr* in *tree* is *ch*, a reflection of the affricate properties of the *tr* blend). Emergent writers also code an appreciation of the phonological properties of sound in early spelling, as shown by Treiman, Cassar, and Zukowski (1994). Phonological awareness has been shown to be closely related to spelling, particularly in the early stages (Ellis, 1997). In fact, invented spelling is frequently cited as one of several ways of measuring phonological awareness.

From kindergarten to the early elementary grades, children more consistently demonstrate their knowledge of the alphabetic principle as they associate graphemes with phonemes across a wider variety of words. To attain relative fluency as a speller, children must learn the patterns that characterize English orthography (e.g., that the sound /i/ is represented by several possible sequences of two letters). Children in the mid-to-late elementary years should spell with enough fluency that composing (writing at the text level) is not negatively affected. Eventually, children realize that morphological meaning is encoded in the spelling system (e.g., *ed* signals that something happened in the past, regardless of how the end of the word sounds). These changes have been captured in five developmental stages (Henderson, 1990; cited by Masterson &Crede,1999) as (a) preliterate stage; (b) letter-name (alphabetic) stage; (c) within-word patterns stage; (d) syllable juncture stage (e.g., doubling consonants at end of syllables with short vowels before adding suffix); and (e) derivational constancy stage.

Relationships Between Reading and Writing

Reading and writing are highly interrelated as processes and in contexts where they occur. It is difficult to isolate any aspect of reading development that does not have a writing counterpart. For example, children read syntactic patterns common in informational texts, and the same patterns emerge in their writing. Children become fluent orthographic readers at about the same time that their spelling reflects similar orthographic sophistication (e.g., the *ough* in *though* is

correctly spelled). Because spelling requires matching every target letter of the word (i.e., full knowledge), it is thought to be more difficult than reading (Berninger, 1999). Nevertheless, many studies have demonstrated high correlations between reading and spelling performance for both typical readers and readers with disabilities (Ehri, 1997). Reading and writing also are difficult to separate in the school context. Kindergarten children are asked by teachers to "read" what they "write". Secondary students "read to find out what to write and write to demonstrate that they understand what they read" (Scott, 1999, p. 224).

Language Base of Reading and Writing Problems

Given the reciprocal relationships between spoken and written language, it is not surprising that literacy problems have their foundations in spoken-language difficulties. Young children with specific language impairments have difficulty on tasks measuring rhyme, letter names, and concepts related to print, as well as on some measures of narrative structure and recall (Boudreau & Hedberg, 1999; van Kleeck, 1995, 1998). Evidence of an association between language impairment and reading disability has also come from longitudinal studies (Bishop & Adams, 1990; Catts, 1993; Scarborough & Dobrich, 1990; Silva, McGree, & Williams, 1983; Stothard, Snowling, Bishop, Chipchase, & Kaplan, 1998; Tallal, Curtiss, & Kaplan, 1989). In these studies, children displaying significant impairments in language (generally in semantic-syntactic-phonological aspects) have been identified in preschool or kindergarten and tested for reading and other academic achievement in later grades. Their collective results have shown that children with language impairments are four to five times more likely than normally developing children to have reading difficulties during the school years.

Studies also have been designed to examine directly the language abilities of children with reading disabilities. One approach has been to identify school-age poor readers and then study their performance on traditional measures of language development. In at least some studies, data on language development have been obtained before children became poor readers (e.g., Catts, Fey, et al., 1999; Fletcher, Shaywitz, Shankweiler, Katz, Liberman, Stuebing, Francis, Fowler, & Shaywitz, 1994). This work has shown that poor readers often have problems with receptive and/or expressive vocabulary (Wiig & Semel, 1975), semantic relations (Nation & Snowling, 1998), or in the comprehension and/or use of morphology and syntax (Fletcher, 1985; Morice & Slaghuis, 1985; Scarborough, 1991; Stanovich & Siegel, 1994; Wiig & Semel, 1975). Deficits, although sometimes relatively subtle, also have been reported in the comprehension and/or production of text-level language (Donahue, 1984; Feagans & Short, 1984; McConnaughy, 1985; Roth & Spekman, 1986; Smiley, Oakley, Worthen, Camppione, & Brown, 1977; Stothard & Hulme, 1992; Yuill & Oakhill, 1991).

Other researchers have examined poor readers' phonological processing abilities, using tasks that require awareness, memory, and manipulation of phonemes (e.g., word retrieval, rapid naming). This work has shown poor readers to have deficits in phonological awareness (Bradley & Bryant, 1983, 1985; Catts, Fey, et al., 1999; Fletcher, et al., 1994; Lombardino, Riccio, Hynd, & Pinheiro, 1997; Stothard & Hulme, 1995), phonological retrieval (Bowers & Wolf, 1993; Wolf, 1984, 1991), phonological memory (Torgesen, 1985; Vellutino & Scanlon, 1982), and phonological production (Catts, 1991; Rapala & Brady, 1990). Research also supports the conclusion that a reciprocal relationship exists between phonological awareness and reading.

That is, some studies show that phonological awareness precedes and influences reading acquisition; others show that reading acquisition influences the development of phonological awareness (Ehri, 1987; Swank & Larrivee, 1998; Torgesen, Wagner, & Rashotte, 1994).

Language problems appear to play a causal role in reading disabilities and also may be a consequence of them (Snow et al., 1998). The ability to understand and remember the meanings of new words depends on the level of a child's oral vocabulary (Robbins & Ehri, 1994). Poor readers, however, do not read as much as good readers and have less opportunity to acquire linguistic knowledge from reading (Guthrie, Wigfield, Metsala, & Cox, 1999). Stanovich (1986) dubbed this "rich get richer" principle as the "Matthew effect." Over time, reduced exposure to literate language can lead poor readers to experience other language problems. For example, poor readers may fall behind their peers in knowledge and use of higher level vocabulary, advanced grammar, and text-level structures. These and other aspects of language are dependent on rich literacy experiences that poor readers seldom encounter during the school years.

The fact that spoken-language problems are both a cause and a consequence of reading disabilities ensures that language problems will be a major component of almost all cases of reading disabilities (Catts & Kamhi, 1999). In some instances, the cause and consequence roles can be differentiated. In many cases, however, factors interact to such an extent that cause and consequence roles are obscured, especially in older poor readers (Apel & Swank, 1999). In any case, it is important to recognize that reading disabilities may take varied forms (Aaron, Joshi, & Williams, 1999). Even in cases in which spoken-language problems are not the immediate precursor of reading and writing difficulties, children with a history of reading problems may fail to develop higher level cognitive-linguistic skills (Cain & Oakhill, 1998; Stothard, Snowling, et al., 1998).

Relevant Knowledge and Skills of Speech-Language Pathologists

The reciprocal and multiple relationships between spoken and written language make it appropriate for SLPs to play an integral role in helping children become literate. SLPs understand individual differences in normal and disordered language development across the age span, as well as the role of sociocultural differences in language acquisition. This knowledge base, combined with skill in using diagnostic-prescriptive approaches for assessment and intervention, is particularly valuable in educational contexts. The knowledge and skills that SLPs already have regarding language in general, and additional knowledge and skills that they need to have for helping children acquire written language, are summarized here and outlined in greater detail in the accompanying knowledge and skills document.

Knowledge of language and its subsystems—phonology, morphology, syntax, semantics, and pragmatics—is highly relevant for prevention, identification, assessment, and intervention of literacy problems. SLPs possess such skills, as well as skill in diagnosing and treating children with phonological disorders. Their training in using the International Phonetic Alphabet (IPA) to transcribe the sounds of language, along with their understanding of phonology and language processing, prepare them to design literacy programs to address difficulties involving phonological awareness, phonological memory,

and phonological retrieval. This knowledge of phonemic structure enables SLPs to explain, for example, how a six-letter word (e.g., caught) can be composed of three phonemes/kot/.

Knowledge of phonology also helps SLPs tailor lessons for success. They know how to reduce stimulus complexity in sound-segmentation activities, for example, by mixing continuant and stop sounds to maximize discriminability. They also understand how place and manner of articulation, coupled with voicing, affect sound production and how sounds are affected by their position in words and surrounding phonetic contexts. SLPs can highlight these aspects for children having difficulty, teaching them to capitalize on tactile-kinesthetic and auditory cues in their word decoding and invented-spelling efforts. Such skills can be applied in individual treatment, during consultation with teachers to plan general education lessons on phonological principles, and in collaboration with others working with children both with and without literacy problems.

Beyond phonology, SLPs have knowledge of morphological, syntactic, semantic, and pragmatic systems, which also are crucial for reading comprehension and written expression. They understand the theories, principles, and developmental expectations for these systems through the school years. With their knowledge of spoken-language development, SLPs can then analyze how the advancing language demands of textbooks (Scott, 1994), academic talk (Sturm & Nelson, 1997), and curriculum may stress a student's capabilities. For example, a child who fails to comprehend or produce sentences with embedded relative clauses may be unable to comprehend questions at the end of a reading assignment that contain these structures. A child who lacks morphological awareness may have trouble learning to spell words that require this insight (e.g., walk*ed*, humor*ous*). Children whose spoken stories are not at expected developmental levels will also find it difficult to write stories. Virtually any weakness in spoken language at any linguistic level will have an impact on reading and writing. SLPs are trained to do fine-grained analyses of children's strengths and weaknesses at word, sentence, and discourse levels. The results of such analyses can direct assessment of written language and lead to the generation of language-intervention protocols that match the needs of individual students (Westby & Clauser, 1999).

Academic programs in communication sciences and disorders historically have varied in their provision of information about reading, writing, spelling, and higher level language use. Currently, however, many educators and clinicians who are also SLPs are contributing textbooks, edited collections, journal articles, and in-service education programs about how to apply spoken-language expertise to problems of written language. This makes it possible for all SLPs to have access to the information. It is the contention of the accompanying position statement and guidelines on roles and responsibilities that (a) university programs and other agencies are responsible for providing pre-service and in-service learning opportunities; and (b) speech-language professionals working with children and adolescents are responsible for taking advantage of such opportunities. In addition, SLPs can seek assistance and information from other professionals. Because of the interdisciplinary nature of the work, numerous professionals are involved in helping children with reading and writing problems become literate.

EXECUTIVE SUMMARY

These guidelines are an official statement of the American Speech-Language-Hearing Association (ASHA). They were approved by ASHA's Legislative Council on November 18, 2000. They provide guidance for speech-language pathologists in all work settings regarding their roles and responsibilities related to reading and written language disorders in children and adolescents but are not official standards of the Association. Members of the Ad Hoc Committee on Reading and Written Language Disorders were Nickola Nelson, chair; Hugh Catts; Barbara Ehren; Froma Roth; Cheryl Scott; Maureen Staskowski; and Roseanne Clausen, ex officio. Diane Paul-Brown and Susan Karr provided consultation. Alex Johnson, 2000–2002 vice president for professional practices in speech-language pathology, and Nancy Creaghead, 1997–1999 vice president for professional practices in speech-language pathology, served as monitoring officers.

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,[1] 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,[2] 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 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

[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.

literacy acquisition among general education students at risk for or experiencing reading and writing disorders.

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;[3] 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 in 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 formulation skills for using complex semantics and syntax; and (d) knowledge of literate discourse structures for comprehending and producing coherent spoken and written texts.

The technical report summarizes the literature that establishes the scientific base for the position statement and provides the background on the development of reading and writing for the guidelines. The technical report also outlines the professional knowledge base that prepares SLPs to make unique contributions to collaborative teams of educators and other specialists concerned with the mutual goal of helping all individuals become competent literate language users.

[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.

Appropriate roles and responsibilities for SLPs are dynamic in relation to the evolving knowledge base and have implications for research, academic, and clinical education. These roles include, but are not limited to:

- **preventing written language problems** by fostering language acquisition and emergent literacy
- **identifying children at risk** for reading and writing problems
- **assessing reading and writing**
- **providing intervention and documenting outcomes** for reading and writing
- **assuming other roles**, such as providing assistance to general education teachers, parents, and students; advocating for effective literacy practices; and advancing the knowledge base.

Preventing written language problems involves working with others in indirect or direct facilitative roles 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 multiple disabilities gain access to such activities. Strategies for supporting emergent literacy and preventing literacy problems include (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.

Early identification roles and responsibilities include (a) designing literacy-sensitive early identification activities, (b) helping teachers and other professionals with early recognition of language factors associated with later literacy problems, (c) collaborating with other professionals to identify risk factors, (d) participating on prereferral child study teams, and (e) consulting with others regarding when diagnostic assessments are needed.

Identification 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 Literacy Acquisition Difficulty

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 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), which 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 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. Furthermore, 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 socio-cultural 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-decoding 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-skill 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, composing, 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, syntax, 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.
- Syntactic complexity: Clause density and linguistic cohesion (Crowhurst & Piche, 1979; Nippold, 1998).

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 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 socio-cultural 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 non-biased 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 is inadequate, students may need instruction aimed directly at building the knowledge base. 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 school children 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 the 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, preclude*) 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 <u>beneath</u> the chair* vs. *begging was <u>beneath</u> her, it is a <u>cold</u> day* vs. *his look was <u>cold</u>*).
- Adverbs of likelihood and magnitude (e.g., *possibly, especially*).
- Metalinguistic and metacognitive verbs (e.g., *assert, concede, forget, assume, conclude*).

- <u>Sentence level: Complex syntactic structure and meaning</u>. 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.

- <u>Discourse level: Cohesion and text structure</u>. 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 piece.

- <u>Metacognitive Strategies That Support Literate Language</u>. 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., 1991; Koppenhaver & Yoder, 1993; Light, Binger, & Kelford Smith, 1994; Light & Kelford Smith, 1993; Light & McNaughton, 1993).

Research results, however, have begun to illuminate some characteristics of literacy development for students who have severe communication impairments. For example, phonological awareness seems to play a critical role in literacy development among children who are nonspeaking, just as it does for typically developing children (Blischak, 1994), but it is less predictive of reading success (Dahlgren Sandberg & Hjelmquist, 1996). Graphic symbol use also contributes to metalinguistic concepts of print representations of words (McNaughton & Lindsay, 1995). The most critical bridge toward understanding concepts of literacy seems to emerge for children who use AAC systems when they grasp the concept of using graphic symbols for conveying novel meaningful messages (Rankin, Harwood, & Mirenda, 1994). Extensive opportunities to hear written language read aloud and computer supports for independent reading and writing would be important components of intervention programs for individuals with cognitive, physical, and mixed disabilities.

Responsibilities 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 of 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. A possible exception 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.

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.
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 the learning of 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 have 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 the 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. Practicing 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.

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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.

Other documents and materials are under review and will be added as deemed appropriate.

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