STATE OF SOUTH CAROLINA

DEPARTMENT OF EDUCATION

MOLLY M. SPEARMAN
STATE SUPERINTENDENT OF EDUCATION

JILL CHRISTMUS
INTERIM DIRECTOR OF THE OFFICE OF SPECIAL EDUCATION SERVICES

SLP Companion Guide

May 10, 2022

Introduction

One of the best-kept secrets in education is that SLPs make valuable contributions to academic achievement and college and career readiness, but when most people think about the "speech teacher" in their building the first thing that comes to mind is someone who helps students pronounce words (Ehren, 2015). There was a time when that made up the majority of the work for Speech-Language Pathologists (SLPs), but the field of Speech-Language Pathology (SLP) has evolved significantly since 1872, when Alexander Melville Bell and his son, Alexander Graham Bell, created a visible code to indicate the position of the throat, tongue, and lips in the production of various speech sounds which they as a speech treatment technique for teaching speech to those with oral speech difficulties (Duchan, 2002).

While practice areas of fluency, voice, articulation, and language continue to be staples of the school-based SLP caseload, research and evidence-based practice guidance continues to advance the field. According to the American Speech-Language-Hearing Association (ASHA) the scope of practice for SLPs has expanded to include working with students who are medically fragile, have feeding disorders, traumatic brain injury, and the provision of telepractice (ASHA, 2010). In addition, SLPs play a critical role in the support and development of literacy skills as oral language is foundational for learning to read. If students enter school at a disadvantage due to delayed speech and language development, they are likely to lag behind their peers in comprehension as the language demands increase with text complexity and academic discourse (Shanahan & Lonigan, n.d.).

Speech-Language Impairment (SLI) is one of the largest disability categories in South Carolina. Out of the 109,421 students in SC with a disability (aged 5-21), 51.9 percent of six-year-old students having SLI listed as the primary disability (SCDE, OSES, 2020-21). Many others have SLI as a secondary disability or are served by speech as a related service. Legal mandates such as multi-tiered system of supports (MTSS) and updates to the Individuals with Disabilities with Education Act (IDEA) and the provision of Coordinated Early Intervention Services (CEIS) have also influenced the changing roles of the SLP. School-based SLPs are now often part of problem-solving teams within the school as collaborative, interprofessional partners supporting struggling students as well as seeking to prevent struggles from developing. Since 1988, states have been able to draw down federal funds under Medicaid to pay for school-based health and related services required by IDEA including speech-language therapy, when provided to Medicaid-eligible children with disabilities. As a result, school districts that actively and ethically pursue Medicaid reimbursement report an average annual recovery of $2000 per student (ASHA).

The SLP Companion Guide is designed to provide school based SLPs with current information and guidance in order to provide clarity and consistency across the state in the provision of speech-language services to students in South Carolina as well as to inform parents, teachers, and administrators of the training, expertise, and requirements that apply to the practice of SLP.

Angie Neal, M.S. CCC-SLP, Speech-Language Pathologist
SLP Contact, Education Associate
Office of Special Education Services (OSES)
South Carolina State Department of Education (SCDE)

Acknowledgements

The SCDE, OSES and the SLP Contact, Angie Neal, would like to express our appreciation to the following individuals for their work and contributions to the creation of this document:

Marie Ireland, CCC-SLP, BCS-CL Virginia Department of Education
Perry Flynn, CCC-SLP, North Carolina Department of Public Instruction
Lee Ann Brammer, M.A. CCC-SLP, West Virginia Department of Education
Michelle Dawson, M.S. CCC-SLP, Francis Marion University
Crystal-Murphree Holden, M.A. CCC-SLP, University of South Carolina
Dr. Suzanne Adlof, Ph.D., CCC-SLP, University of South Carolina
Dr. Jessica Berry, Ph.D. CCC-SLP, South Carolina State University
Dr. Lisa Fitton, Ph.D., CCC-SLP, University of South Carolina
Dr. Angela McCleod, Ph.D., CCC-SLP, University of South Carolina
Dr. Eugenia Crosby-Quintoa, Ph.D., CCC-SLP, University of South Carolina
Dr. Jamy Claire Archer, Ph.D., CCC-SLP, University of South Carolina
Dr. Jana Oetting, Ph.D., CCC-SLP, Louisiana State University

The following Lead SLPs across the state of South Carolina also provided valuable assistance in their input and review of this document.

Sherri Evans, M.A. CCC-SLP, Lexington/Richland District Five
Peggy Neel, M.S. CCC-SLP, Greenville County Schools
Diane Houston, M.A. CCC-SLP, Horry County Schools
Catherine Childers, MSP CCC-SLP, Union County Schools
Dr. Karen Long, Ph.D. CCC-SLP, Florence County School District
Andrea Mick, M.S. CCC-SLP, Charleston County Schools
Michelle Jordan, M.S.P., CCC-SLP, Richland District Two
Laura Deal, M.C.D., CCC-SLP, Aiken County School District
Beth Montgomery, M.S.P. CCC-SLP, Lexington District Two
Dr. Karen Senior, Ph.D. CCC-SLP, Colleton County School District
Kristen Ruff, M.A. CCC-SLP, School District of Newberry County
Samantha Miles, M.S.P. CCC-SLP, Spartanburg, School District Two

In addition, the following people at the South Carolina Department of Education provided valuable assistance with this document.

Jill Christmus, Interim Director, Office of Special Education Services
Lisa McCliment, School Psychology Consultant, Office of Special Education Services
Sandy Garner, Team Lead, Office of Special Education Services
Lisa Kershaw, Education Associate, Office of Special Education Services
Madalina Tudora, Education Associate, Office of Special Education Services
Ann Moore, Education Associate, Office of Special Education Services
Robert Hill, Education Associate, Office of Special Education Services
Rikki McCormick, Education Associate, Office of Special Education Services
Vicki Ladd, School Nurse Consultant, South Carolina State Department of Education
Artena Starks, Administrative Specialist, Office of Special Education Services

Table of Contents

Chapter One: Overview of School Based Speech-Language Pathology

Introduction

This opening section of the SLP Companion Guide addresses questions that frequently arise about:

- The role of the SLP
- Skill development
- Personnel requirements
- Supervision and mentoring
- Work environment
- Recruitment and retention of SLPs

A. Role of the School Based Speech Language Pathologist

SLPs have a unique perspective and expertise related to the role communication plays in social interaction and classroom performance. The goal of the school based SLP is to remediate, improve, or alleviate student communication and swallowing problems within the educational environment that are significantly impacting educational performance and access to the general curriculum as well as to adhere to the requirements of the Individuals with Disabilities Education Act (IDEA). To meet this goal, SLPs (a) prevent, correct, improve, or alleviate articulation, fluency, voice, language, and swallowing impairments; (b) reduce the functional consequences of the communication and swallowing disabilities by promoting the development, improvement, and use of functional communication skills; and (c) provide support in the general educational environment to lessen the handicap (the social consequence of the impairment or disability) by facilitating successful participation, socialization, and learning (ASHA, 1999).

The IDEA CFR 300.34 (c)(15) defines speech-language pathology services as "identification of students with speech-language impairments, appraisal and diagnosis of the impairment, referral for medical or other professional attention necessary for the habilitation of speech or language impairments; provision of speech-language services for prevention or habilitation of communication impairments, and counseling and guidance for parents, students and teachers regarding speech and/or language impairments. Speech-language pathology services are both special education and a related service and may also be provided as part of a general education initiative." Table 1 summarizes the roles and responsibilities of school based SLPs.

Table 1. Roles and Responsibilities of School Based SLPs.

Speech-Language Pathologist Responsibilities	
Prevention	Provides pre-referral consultations and is involved in various initiatives including Response to Intervention (RtI)
Identification	Conducts speech-language and hearing screenings/observations Shares data with multi-tiered system of supports (MTSS) teams who determine if there is suspicion of a disability
Evaluation: Determining Need for Evaluation	Serves as member of team for any students with suspected speech-language deficits
Evaluation: Assessment	Participates a comprehensive assessment process to determine the existence of a disability
Evaluation: Interpretation of Assessment	Identifies child's communication strengths and weaknesses Prepares evaluation report
Eligibility Decision	Presents speech-language assessment results at team meeting Describes the student's functional speech and language skills as they relate to the student's ability to access the curriculum and progress
Individualized Education Program Development	Drafts parts of present level of performance, IEP goals and objectives/benchmarks, if needed, related to speech-language impairment
Intervention	Provides intervention appropriate to the age and learning needs of the individual student
Caseload Management	Employs a continuum of service delivery models in the least restrictive environment (LRE); meets federal and state mandates as well as local policies in performance of job duties
Data Collection and Analysis	Gathers and interprets data for individual students as well as overall program evaluation
Supervision and Mentorship	Supervises university practicum students, clinical fellows, and paraprofessionals Mentors new SLPs
Documentation	Completes progress reports (for special education and Medicaid) Completes performance appraisals for supervisee
Collaboration	Works with individuals and agencies in the community, universities, other school professionals, families, and students
Unique Contributions	Contributes to the literacy achievement of students Addresses the linguistic and metalinguistic foundations of the curriculum
Professional Development	Remains current in all aspects of the profession and supports the use of EBP Stays abreast of educational issues

Adapted from American Speech-Language-Hearing Association (2010).

The school based SLP may serve as a member of a variety of teams and does not make decisions in isolation regarding the needed evaluation components, the student's eligibility for special education and related services, or the goals and objectives of intervention. The needs of students with disabilities are best addressed in a multidisciplinary manner with a team of professionals providing services to students.

SLPs may also provide support when students are not eligible for speech-language services by participating on various prevention, early intervention, and multi-tiered system of support teams, etc. according to LEA policies and procedures. On these teams, the SLP may conduct

observations, complete assessments, problem solve with team members, model and/or provide interventions, coach teachers, and/or gather data, all in the context of general education.

In the early years of school practice, the provision of services is focused on fluency, voice, and articulation disorders, with later inclusion of language disorders. Although these areas continue to be included within the SLP's roles and responsibilities, changing legal mandates and an expanded scope of practice for SLPs across settings has prompted a redefinition of work in the schools. Several professional practices may now be included as part of the SLP's workload including working with students who are medically fragile, have dysphagia or traumatic brain injury, addressing reading and literacy needs, as well as providing evidence-based practices, response to intervention, and telepractice (ASHA, 2010).

B. Skill Development

The field of speech-language pathology is a dynamic field of science. As such it evolves as the research evolves and informs practices. There are several governing bodies that guide the practice of SLP.

The American Speech-Language-Hearing Association (ASHA) is the national professional, scientific, and credentialing association for 223,000 members and affiliates who are audiologists; speech-language pathologists; speech, language, and hearing scientists; audiology and speech-language pathology support personnel; and students. Over 50 percent of all ASHA SLPs work in the school setting. Over 3,000 ASHA members reside in South Carolina and approximately 1,200 work in SC schools. One of the roles of the ASHA is to credential programs that guide the training and professional development. This also includes credentialing individuals for clinical certification via the Certificate of Clinical Competence (CCC). An SLP with the CCC from the ASHA has met standards that are based on skills validation studies and practice analyses involving employers, leaders in the discipline of communication sciences and disorders, and practitioners in the professions of speech-language pathology. Those who have achieved the CCC have voluntarily met rigorous academic and professional standards, typically going beyond the minimum requirements for state licensure. They have acquired 400 hours of experience with various communication disorders across the life span during their academic training in addition to a nine-month clinical fellowship upon completion of a graduate level program of study. CCC-SLPs have the knowledge, skills, experiences, and expertise to provide high quality services in any setting and are required to actively engage in ongoing professional development to keep their certification current. They must obtain thirty hours of continued professional development every three years to maintain the CCC with at least one hour in ethics. Certificate holders are expected to uphold these standards and abide by ASHA's Code of Ethics which establishes expectations for scientific and clinical practice based on principles of duty, accountability, fairness, and responsibility. The ASHA Code of Ethics is intended to ensure the welfare of the consumer and to protect the reputation and integrity of the professions and preserves the highest standards of integrity and ethical principles is vital to the responsible discharge of obligations by SLPs.

The second governing body that guides the practice of SLP is the South Carolina Board of Speech-Language Pathology and Audiology of the SC Department of Labor, License and Regulation (SC LLR). A license to practice SLP is required in the state of South Carolina in all settings (schools, hospitals, home health, private practice, etc.) and all licensees must adhere to

all Board licensure requirements regardless of the practice setting. The requirements to obtain licensure in SC as an SLP are similar to those of the ASHA CCC. In order to maintain licensure in South Carolina, an SLP must maintain sixteen hours of continuing education every two years. Developing and maintaining uniquely specialized skills means that SLPs and their employers must be willing to commit to the required continuing education in order to stay current on evidence-based practices across all areas of the field of practice and most especially those in which the SLP provides assessment and therapeutic services. Licensed SLPs may provide supervision for speech-language pathology clinical fellows, speech-language pathology students, and speech-language-pathology assistants/therapists.

The third governing body that guides the practice of SLP in the school setting is the Individuals with Disabilities Education Act (IDEA). The IDEA is the law that makes available a free appropriate public education (FAPE) to eligible children with disabilities throughout the nation and ensures special education and related services to those children. This includes specific laws that govern personnel qualifications, assessment, eligibility, and service provision related to the practice of SLP.

C. Personnel Requirements for SLPs in South Carolina Public Schools

According to the IDEA § 300.34 (A) 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, interpreting 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. Related services also include school health services and school nurse services, social work services in schools, and parent counseling and training. Additionally, §300.156 (b)(1) states that "The qualifications of this section must include qualifications for related services personnel and paraprofessionals that are consistent with any State-approved or State-recognized certification, licensing, registration, or other comparable requirements that apply to the professional discipline in which those personnel are providing special education or related services".

In SC schools there are five types of speech-language pathology personnel. Table 2 provides a comparison chart of each. Effective July 2, 2020, to obtain certification to provide speech-language services in a public-school setting, a candidate must present a current, valid license issued by the SC LLR. However, this "does not apply to any speech therapy staff employed prior to September 1, 2020, as per state law" (Chapter 67, Section 5, 40-67-300). This also does not apply to Speech-Language Pathology Assistants who are not required to obtain certification through the SCDE as per the September 28, 2021, memorandum regarding Speech-Language Pathology Assistants from the Office of Educator Services.

The current State Board of Education regulation, Requirements for Initial Certification at the Advanced Level (for SLP personnel), effective 06/27/2014 (43-64 (II)(C)(1-3) is as follows:

C. SPEECH LANGUAGE THERAPIST
1. Master's degree
2. Completion of an advanced program approved by the State Board of Education for the preparation of speech language therapists
3. Minimum qualifying score(s) on the area examination(s) required by the State Board of Education

(see also) Speech-Language Pathology (43-53 (I)(E).
The Internship* Certificate will also be issued to any individual who holds the Certificate of Clinical Competence in Speech-Language Pathology issued by the American Speech-Hearing Association (ASHA) or who has completed a master's degree that includes the academic and clinical requirements for the ASHA Certificate of Clinical Competence and has achieved the minimum qualifying score on the required certification examination(s). The certificate will be effective for one academic year and must be requested by the employing school district. The Internship Certificate may be renewed once upon the written request of the employing school district. The Internship Certificate may be converted to an initial certificate upon verification of a successful formative evaluation in fulfillment of the state's induction requirements.

*Note: The internship certificate varies from internship certificates for all other educator positions in that the SLP has completed all required academic coursework and is not under the supervision of another professional in their field of study. SLPs who have completed their required academic coursework do not participate in internships, but rather a Clinical Fellowship in order to obtain their license to practice for SC LLR and the ASHA CCC.

Below is an outline of the various types of SLP personnel:
1. Speech-Language Pathologist – May be referred to as **SLP or CCC-SLP**
   a. An SLP is licensed by SC LLR as an "SLP"
   b. The training and background of an SLP requires that the individual has
      a. Obtained post-graduate degree in Speech-Language Pathology from a school or program determined by SC LLR to be equivalent to those accredited by the Council on Professional Standards of the ASHA
      b. Passed an exam approved by SC LLR, and
      c. Completed supervised professional employment under this chapter, or
      d. Meets ASHA's Standards for CCC, or its equivalent as approved by SC LLR, or
      e. Has a current ASHA CCC or its equivalent as approved by SC LLR.

2. Speech-Language Pathology Clinical Fellow – May be referred to as **CF-SLP or as CF-Intern***
   a. The CF-SLP is licensed by SC LLR as an SLP Intern*.
   b. A Clinical Fellow is a person who is completing a nine-month clinical fellowship which is defined as "professional employment under the mentorship of an SLP with the CCC for the purpose of integrating and applying knowledge acquired from a graduate level program of training in SLP".
   c. The training and background of the CF-SLP requires that the individual has

i. Obtained a post-graduate degree in Speech-Language Pathology or Audiology from an accredited school or program that meets the requirements of the Council on Professional Standards of the ASHA.
ii. Provided written verification of 375 clinical clock hours within the training institution or in one of the cooperating programs of supervised, direct clinical experience with individuals presenting a variety of disorders of communication.
iii. Obtains a passing score on the Praxis before the completion of fellowship but is not required before being licensed.

d. A Board approved Supervisor Agreement/ Intern Plan for Supervised Professional Employment (SPE) form via must be on file with SC LLR at the beginning of the Clinical Fellowship Year.

3. Speech-Language Pathologist Intern* as per South Carolina Department of Education Office of Educator Services – May be referred to as **SLP, CCC-SLP or SLP Intern*** (this type of SLP applies only to SCDE certification; not any other licensure or professional practice requirements)

a. An SLP (SCDE Intern*) is an SLP who is working in the school setting for the first time, but has worked in other settings such as hospitals, outpatient settings, private practice, home health, etc.
b. An SLP (SCDE Intern*) is licensed by SC LLR as an "SLP".
c. The SLP (SCDE Intern*) certificate will be effective for one academic year and must be requested by the employing school district but may be renewed once upon the written request of the employing school district.
d. The SLP (SCDE Intern*) Intern certificate may be converted to an initial SLP certificate upon verification of a successful formative evaluation in fulfillment of the state's induction requirements.

4. Speech-Language Therapist – May be referred to as **SLT**

a. As of July 2020, this certificate is no longer issued to new applicants.
b. Individuals currently certified by SCDE in the field of Speech-Language Therapist may continue to maintain and renew that credential and serve in their current roles.
    a. To maintain the certificate in the field of Speech-Language Therapist, the educator must meet standard certificate renewal requirements every five years.

5. Speech-Language Pathology Assistant – May be referred to as **SLPA**

a. An SLPA is licensed by SC LLR as an "SLPA"
b. SLPAs are not required to obtain certification through SCDE. However, a Board approved Supervisor Agreement and On-the-Job Training Plan via SC LLR must be in place *before* an SLPA may begin working.
c. The training and background of an SLPA requires that the individual has "earned a bachelor's degree in Speech-Language Pathology from a regionally accredited institution that must include as a minimum core curriculum of 36 semester hours and not less than 100 clock hours of direct client contact/clinical practicum excluding observation hours".
d. LEAs and supervisors of SLPAs **must** refer to ASHA and SC LLR for specific and comprehensive information regarding supervision requirements and scope of practice of an SLPA. It includes critically important information such as, but not limited to the following stipulations

i. SLPAs may not carry their own caseloads.
ii. An SLPA may not perform diagnostic tests of any kind, formal or informal evaluations, or interpret test results.
iii. An SLPA may not participate in IEP meetings, parent conferences, case conferences, or any interdisciplinary team meetings where diagnostic information is interpreted, or treatment plans developed without the presence of the supervising SLP or designated licensed SLP.
iv. An SLPA may not write, develop, or modify a patient/student/client's treatment plan in any way.

D. Data Reporting

Speech-Language Impairment is one of the thirteen categories of disability under the IDEA. Data regarding disabilities and implementation of the IDEA is collected for a variety of purposes by the South Carolina Department of Education (SCDE), Office of Special Education Services (OSES). For the purposes of data reporting for "Table Two: Personnel", speech personnel are considered related service personnel by the Office of Special Education Programs (OSEP). The OSEP states "the top three related services personnel reported were occupational therapists, psychologists, and speech-language pathologists" (Fast Facts, 2021) with SLPs making up the vast majority of those personnel. According to OSEP, SLPs make up more than forty-one percent of all related service providers in South Carolina (followed by psychologists accounting for just over nineteen percent, and occupational therapists making up ten percent). As mentioned in section C, the IDEA §300.156 (b)(1) states that "The qualifications of this section must include qualifications for related services personnel and paraprofessionals that (1) are consistent with any State-approved or State-recognized certification, licensing, registration, or other comparable requirements that apply to the professional discipline in which those personnel are providing special education or related services". Therefore, for the purposes of data reporting, under the heading "Staff Category (Special Education Related Service)", only the following SLP titles should be reported given that these are the titles consistent with licensure in SC: SLPs, CF-SLP (Intern*), and SLPAs. When reporting SLTs, this title is accounted for within the section referred to as "Certification Status" which indicates "whether related service personnel hold the certification or licensure required by their assignment" as SLTs do not hold licensure required by their assignment. SLP Interns* as certified by the SCDE Office of Educator Services would be reported with SLPs.

Table 2. SLP personnel comparison chart

	CCC-SLP	CCC-SLP (SCDE Intern*)	CF-SLP	SLPA	SLT
Completed Master's degree program in SLP	Y	Y	Y	Varies	Varies
Completed Clinical Fellowship Year (CFY)	Y	Y	N	Varies	Varies
Achieved passing praxis score	Y	Y	Not required until the *end* of CF	Varies	Varies
Holds licensure by SC LLR as required by law (2020)	Y	Y	Y	Y	N
Able to provide evaluation and treatment independently	Y	Y	Y	N	Y
Able to carry caseload independently	Y	Y	Y	N	Y
SCDE certificate issued upon receipt of copy of SC LLR	Y	Y	Y	N	N (Certificate no longer issued)
Must participate in ADEPT system for SLPs	Y	Y	Y	N	Y
Must meet Read to Succeed requirements**	Y	Y	Y	N	Y
Requires direct and indirect supervision to practice	N	N	N	Y	N
Requires a Supervisory Agreement (updated any time supervisor changes), On-the-Job Training Plan, Quarterly Reviews, as well as direct and indirect supervision	N	N	N	Y	N
Has limited scope of practice	N	N	N	Y	N

**The Read to Succeed (R2S) endorsement is required for all certified educators including SLPs. To earn the R2S Requirement endorsement, educators must submit evidence of completion of one approved course in the Content Area Reading and Writing taken as college coursework (three credit hours total, undergraduate or graduate) or professional development (sixty contact hours total). The course must have been approved by the R2S team in the Office of Early Learning and Literacy. *Graduates of the University of South Carolina's Master of Communication Disorders program are not required to complete R2S coursework.*

E. Substitutes and Compensatory Services

For short-term absences, SLPs should take advantage of the flexibility written into the IEP for scheduling services to enable them to reschedule the student at another time. For long-term interruption of services, such as if an SLP is going to be absent for a known extended period of time (i.e., medical leave of absence, maternity leave, etc.) it is the Local Education Agency's (LEA) responsibility to obtain a qualified professional to provide the services for students during that time.

Every effort must be made to meet the number of minutes as outlined on the IEP. However, according to the Office of Special Education Programs (OSEP) "whether an interruption in services constitutes a denial of FAPE is an individual determination that must be made on a case-by-case basis" (OSEP, 2007). Moreover, "missed sessions do not necessarily constitute a denial of a free and appropriate public education" (OSEP, 2015). Inasmuch as these decisions are made on a case-by-case basis, blanket policies by LEAs regarding missed services are not recommended. When concerns regarding missed services arise, the student's IEP team must consider the impact of the missed services on the student's progress toward annual goals and determine whether there was a denial of FAPE. If the team determines there was a denial of FAPE, the team must determine how to provide compensatory services. Compensatory services may be scheduled by the LEA to be provided during the summer or by scheduling additional time during mutually agreed upon time during the school year.

In addition, there are several considerations that SLPs should address with administrators in response to being asked to serve as classroom substitutes. The first consideration is related to how the SLP position is funded. If the SLP position is funded completely through funds related to the IDEA and services for students with a disability, then all the SLPs time should be allocated to providing services and supports related to services provided under the umbrella of the IDEA. More importantly, when SLPs are assigned tasks that divert them from assigned duties and responsibilities as an SLP, they may be unable to implement IEP as written, schedule and attend IEP meetings, as well as perform required assessments and documentation. Serving as a classroom substitute may result in an interruption in services and create the need to make up missed sessions.

F. Assisting, Developing, and Evaluating Professional Teaching (ADEPT)

SLPs who are directly employed by a district participate in the ADEPT program with the exception of SLPAs. Speech-language therapy staff are assessed according to a rubric across the four domains of planning, instruction, collaboration, and professionalism and eighteen specific indicators. The evaluation is conducted by a team including the principal or administrative designee and a trained mentor/content expert, preferably a licensed SLP. If an SLP is not available, a trained, certified special education educator should be appointed. Evaluators and the SLP utilize a variety of data including observations of therapy sessions, IEP meetings, pre-conference planning, post conference meetings, review of records, and a self-review as part of assessing performance along a continuum.

ADEPT Evaluation Levels:

- Induction: This is required of Clinical Fellows and SLPs that are new to the school setting.
- Annual and Continuing Summative: These levels are indicative of the type of contract and type of evaluation. Continuing Summative is for a continuing contract.
- Annual Formative: Diagnostic assistance is provided.
- Continuing Formative: This is not required if the SLP has the CCC.
- Continuing GBE: A professional goal must be connected to student growth.

Note: Every SLP is required to complete a professional goal each year regardless of their ADEPT level. For SLPs undergoing annual formative or summative evaluations, the professional goal is built into the evaluation process.

G. Mentoring

One of the most challenging experiences for an SLP can be the first year of employment in a public-school setting. One reason for this is because the SLP may be the only SLP working in building. Building a network of other SLPs to reach out to is critical to understanding the unique distinctions of working in a school setting and establishing strong, confident footing. Mentoring has proven to be a valuable technique to assist new personnel in their unfamiliar work situations regardless of their levels of professional experience. Mentoring is a cooperative arrangement between peers in which an experienced SLP provides a newly hired SLP with ongoing support and assistance. The relationships should be collegial in nature and all experiences should be directed toward the development and refinement of the knowledge and skills. The goal of mentoring is to develop knowledge of the values, beliefs, and practices that lead to a more productive, efficient, and effective professional. As a result, this contributes to successful retention, career satisfaction, better decision-making, and greater perceived confidence (Horgan and Simeon, 1991). Both individuals should have an active role in the mentoring process and a general outline of responsibilities for each individual are shown in Table 3.

Table 3. General Outline of Responsibilities: Mentors and Newly Hired SLPs

Newly Hired SLP	Requesting assistance proactively related to service delivery, school, and community culture, working with other school personnel, and other personal or professional issues, attending all training sessions and sessions with the mentor SLP, remaining open and responsive to feedback, observing other experienced personnel, including the mentor SLP, conducting self-assessments and using reflective skills to enhance clinical skills, and Participating in the evaluation of the mentoring program.
Mentor SLP	Providing support and guidance to the newly hired SLP in the areas of planning, assessment, working with parents and colleagues, obtaining materials and equipment, cultural sensitivity, school procedures, division policies, and local special education procedures, Acclimating the newly hired SLP to the culture of the school and community, Observing the newly hired SLP as appropriate and providing feedback, Attending all training sessions relevant to mentoring, Maintaining a professional and confidential relationship based on respect and trust, and participating in the evaluation of the mentoring program

What Every Special Educator Must Know: Ethics, Standards, and Guidelines, Council for Exceptional Children (2008).

H. Work Environment

Adequate facilities for the many services provided by SLPs are necessary to meet the individualized needs of students and to fulfill the requirements of the IDEA as well as the Americans with Disabilities Act of 1990 regulations. As such, specialized equipment and materials may be required to meet the goals and objectives of students' IEPs. Table 4 contains recommendations to meet the need for adequate facilities, materials, and equipment.

The LEA should provide adequate maintenance and prompt repair of any equipment that is needed to meet the IEP goals of students. As technology advances, equipment should be

updated. SLPs should work with building principals and special education administrators to identify appropriate locations and to prepare a budget to secure the necessary equipment and materials. SLPs must remain current in their knowledge of appropriate materials and technology and have access to the most current version of tests and other evaluation materials.

Table 4. Equipment, Materials, and Space for School Based SLP Use in School Setting

Equipment	Materials	Space/Location
Teacher's desk and chair. Student furniture of correct sizes and adequate number. File cabinets or drawers with locks. Adequate and secure storage for materials and equipment. Marker or chalk board, bulletin board, mirror. Computer, microphone, speakers, printer, and workstation for computer. Clock. Access to: Penlight and otoscope. Recording and playback equipment. Assistive communication devices. Audiometer (calibrated annually). Phone for confidential conversations. Copy machine and paper shredder.	Computer software, including word processing, spreadsheet, database, and creation software. Clinical evaluation and instructional software. Assistive technology software. Current norm-referenced assessment tools and protocols. Materials for informal assessment. Therapy and instructional materials and supplies. Access to instructional materials and textbooks used in the classrooms. File folders/pocket folders. Disposable gloves (latex-free). Office supplies – stapler/staples, scissors, pencil sharpener, paper clips, pens/pencils, correction fluid, post-its, hole punch, dry erase markers. Promethean boards/SMART boards.	The room should be located away from noisy activities (gym, band room, cafeteria, etc.) and in an area that is readily accessible to non-ambulatory students. Size: The room should be of an adequate size to allow for small group activities. Approximately 180 square feet is recommended if the room also serves as an office for the SLP. Climate control: The room should have adequate ventilation and climate control. Lighting: Adequate lighting is necessary to allow for testing and observing. Internet access. Wiring: A minimum of two 110-volt double outlets. Availability: To provide privacy for assessment, conferences, and therapy. Acoustics: Acceptable acoustics optimize instruction.

I. Recruiting/Retaining Qualified Speech-Language Pathologists

Recruiting and retaining qualified SLPs for school district vacancies is a challenge for school districts statewide and nationwide. In 2018, more than half (54 percent) of school based SLPs responding to the ASHA Schools Survey reported that job openings for SLPs exceeded the number of job seekers. At the beginning of the 2021-2022 school year there were 187 speech

personnel vacancies reported across the state. Shortages of SLPs are an ongoing concern for many school districts and may be due in part due to the variety of settings the SLPs can work in such as hospitals, outpatient clinics, home health, telepractice, private clinics, etc. and the difference in salaries across each of these settings. ASHA Schools Survey results indicate that in 2020, the median academic year (9- to 10-month) salary of SLPs in the schools was $66,000. In contrast, according to the ASHA SLP Health Care Survey results indicate that in 2019, the median annual salary of SLPs in health care settings was $78,000. Revisiting pay scales to align with salaries offered in other settings and/or other personnel in the school licensed by SC LLR (i.e., PT, OT, nursing, etc.) may offset the costs of having to hire costly contract staff.

Because SLPs are also employed in these types of non-educational settings, recruiting efforts should focus on more than traditional teacher recruitment strategies and continue throughout the year. A variety of creative approaches to enhance work conditions or employment opportunities can be used to recruit and retain qualified staff and SLPs are encouraged to work with school leaders to determine strategies that may assist in recruiting and retention efforts. Some examples of adjustments to working related conditions include reducing caseloads, shifting to workload model, a 3:1 model, creating part-time positions with benefits, enabling job-sharing, recruiting retired SLPs for long-term substitutes or part-time personnel and continuing to increase step increases beyond district end points. In addition, salary supplement for having the CCC, paying annual dues for ASHA ($199), licensure fees for SC LLR biannually ($160), continuing education coursework opportunities (amount varies) or annual membership dues ($95) to the South Carolina Speech and Hearing Association (SCSHA) are financial incentives that could be considered as well. In fact, about 27 percent of respondents to the ASHA Schools Survey across the U.S. reported receiving a salary supplement for having their ASHA CCCs (2020). Many school districts have determined that the ASHA CCC is equally rigorous and comparable to the National Board for Professional Teaching Standards (NBPTS) requirements. The NBPTS does not offer certification to SLPs, so the ASHA standard was used as a proxy in those divisions (ASHA Leader, 2003). Additionally, school based SLPs report that schools and districts may also provide clerical support or other assistance as recruitment or retention incentives. Other incentives that have been reported across the state include salary supplements for maintaining ASHA certification (a percentage or addition to annual salary) or for billing Medicaid. Extending contracts to eleven months for certain staff to cover summer evaluation, services and administrative responsibilities is yet another option school districts may consider when addressing recruitment issues.

In addition to the strategies listed above, LEAs may consider participating in local, regional, state, and national job fairs and/or set up exhibitor booths at state, local and national conventions for SLPs (e. g., SCSHA and ASHA). Job opportunities can be posted on professional Web sites (e. g., ASHA, SCSHA, etc.), developing relationships with university programs in speech-language pathology as a site for practicums as well as participating in research studies designed to gather data to improve student outcomes in the provision of SLP services can also beneficial recruitment efforts.

Of special note is The Dr. Susan Weathers Floyd Scholarship Fund that was established by the SCDE Office of Special Education Services and Centers for the Re-Education and Advancement of Teachers (CREATE) of Special Education and Related Service Professionals. Named after the

SLP Contact for the SCDE and public school SLP for more than 30 years, this scholarship is available through SC- CREATE, a scholarship program initiated in 2003 with the mission of the program is to increase the number of highly qualified, credentialed professionals in SC public schools who serve the needs of students with disabilities. Through a collaborative partnership with SC colleges, SC-CREATE underwrites course tuition and textbook costs for individuals pursuing initial, alternative, and add-on licensure programs in special education and related services including SLP.

J. Funding

The Education Finance Act (EFA) of 1977 (Act 163) was developed through a spirit of cooperation among educational interests and legislative leadership. It was enacted to achieve school finance reform and was designed to ensure that every child in each public school receives an educational opportunity that meets state standards. It established a reasonable balance between the portion of the funds to be paid by the State (approximately 70 percent) and the portion of the funds to be paid by the districts collectively (approximately 30 percent) in support of the foundation program. The purpose of the Act, according to its legislative background, can be summarized in three words: adequacy, equality, and accountability. These are accomplished by providing each public-school student an equal educational opportunity in terms of financial support and by requiring each school district to report how these financial resources are used in the providing of educational programs. So that funds will be equitably distributed to the school districts on the basis of student need, cost factors called “weightings” are used to provide for the relative cost difference among educational programs. A weighting of 1.0 is assigned to students in grades kindergarten through twelve who are being educated in regular classroom settings. These students are considered to be the most economically educated group. The funding level for this group is called the base student cost (BSC) and supports the costs necessary to meet the criteria established by the State Legislature. The weighting for Speech-Language Impairment is 1.9. More information may be found in the Fiscal year 2020-2021 SCDE Funding Manual.

Chapter Two: Evidence-Based Practice

Introduction

The use of the terms "scientifically-based research" and "evidence-based practice" (EBP) is contained within the Every Student Succeeds Act (ESSA), the IDEA as well as state laws related to both Read to Succeed and MTSS. and local policies and procedures. EBP is a term that describes a model for professional work and a way of working that increases accountability and student outcomes. This section includes an overview of EBP, information on documentation, data collection, and evaluation of outcomes.

A. Overview of EBP

SLPs who serve students in South Carolina public schools should implement service delivery models and therapy approaches that are proven to be beneficial on the basis of the highest level of scientific research and evidence available.

A tutorial detailing specific steps in making EBP decisions when serving students can be found in the American Journal of Speech-Language Pathology (Johnson, 2006). In addition, several articles in peer-reviewed journals have addressed issues that are particularly relevant to the application of EBP in public school systems (e.g., Justice & Fey, 2004; Meline & Paradiso, 2003). SLPs should understand the steps for gathering and reviewing external evidence and the issues to consider when using evidence to make decisions. SLPs are encouraged to use research and be aware of factors that impact school-based services for students.

B. Integrating Evidence and Making Decisions

In their recent description regarding use of EBP to make clinical decisions about language intervention for students in schools, Gillam, and Gillam (2006) summarize critical questions to consider when comparing research studies. Of particular interest for school SLPs may be the assertion that in addition to assessing the published research (external) evidence, school practitioners should also consider the relevant internal evidence (student, parent, and clinician-agency factors) that contribute to school-based decisions. Student-parent factors are described as the cultural values, interest, engagement, activities, and opinions of the family. Agency and clinician factors include training, theoretical orientation, agency policies and resources, as well as intervention data. In fact, ASHA defines evidence-based practice as the integration of clinical expertise, internal and external evidence, as well as client/patient/caregiver perspectives. In other words, one source of evidence should not be considered superior to another as "when all three components of EBP are considered together, clinicians can make informed, evidence-based decisions and provide high-quality services reflecting the interests, values, needs, and choices of individuals with communication disorders (ASHA)."

When reviewing external evidence, it is important to look carefully at several factors. This includes study design and the methodological quality which is important to determine how or if there were controls for bias which may impact the findings. Blind or random assignment are preferrable as well as identification and accounting for confounding factors by the authors of the study (e.g., restrictions of design, implementation fidelity). Peer review of the study is also important. Peer review allows manuscripts submitted to a journal to be evaluated and commented upon by independent experts within the same field of research and is widely recognized standard

in terms of journal quality. Conflict of interest and publication bias are additional factors to consider related to bias. Statistical analysis will whether the results are significant and clinically important. That is, whether the results are due to chance—and, if not, whether they are meaningful enough to consider in clinical practice (Higginbotham, J., & Satchidanand, A., 2019). A good resource for more information on this topic is "Back to Basics: Reading Research" by Golper and Wertz (2002) which appears in *Perspectives: Neurophysiology and Neurogenic Speech-Language Disorders, 12*(2), 27–31.

C. Intervention Documentation and Data

After the evidence has been evaluated and the intervention has been selected and implemented, it is necessary to document the intervention and gather data. This data will be used to document student progress and is vital for the next step of evaluating outcomes. Data must be gathered throughout the process to determine whether the intervention is effective.

D. Evaluating Outcomes

Professionals cannot claim to use EBP if they do not evaluate intervention outcomes. During this critical phase, the SLP reviews documentation and data collected to determine if the student is making progress. At a minimum, school based SLPs should use data and documentation of efforts to evaluate outcomes during naturally occurring points in the academic year such as the annual IEP and progress reporting periods.

Additional information about the process for evaluating outcomes is available through published resources such as the article "Making Evidence Based Decisions about Child Language Intervention in Schools" (Gillam and Gillam, 2006) or the "Guide to Evidence Based Practice" (available online).

E. Documentation, Data, and Evaluating Outcomes

An essential part of the job for every SLP is maintaining appropriate documentation and data collection systems. Documentation includes recording dates (mm/dd/yyyy) that services were provided and what goals were addressed. Documentation provides a record of IEP service implementation and information for progress reports and parent/teacher conferences. Data is information about student performance that is recorded and can be used to guide instruction, communicate with parents, develop an IEP, or demonstrate progress, and should be collected and reviewed regularly. The IDEA requires a student's individualized education program (IEP) to include a statement regarding how the student's progress towards all annual goals will be measured. There are many different kinds of data that can be collected in the school environment including both qualitative and quantitative data.

Quantitative data collection measures behaviors that are observed and counted. It is typically considered to be objective data, meaning that the behavior can be defined well enough that different people could observe and count the same behavior. Quantitative data includes measures related to correct or incorrect (e. g., production of initial /k/ in words), present or not present (e. g., the use of –ing verb form), and for appropriate or inappropriate (e. g., means of gaining attention). Most data taken will measure the frequency of a behavior, but it could also record duration as well as cues used.

Qualitative data involves describing and reflecting on what has been observed. It is considered subjective data because it depends upon the perspective of the person doing the observing. Qualitative data acknowledges that communication does not occur in a vacuum, making the environment and perspectives of communication partners important in measuring the success or failure of treatment. Qualitative data includes descriptive observations and interviews with parents, teachers, or students (Olswang & Bain, 1994). SLPs should use a data collection system that is consistent, considers the type of data being collected, and accurately measures progress.

Effective data collection requires more than simply recording student responses and behavior. The reason for the data collection, the type of data collected, by whom, and how often it is recorded should be considered. Different types of data may be collected to demonstrate a student's ability to perform a task or skill, assess the level of support that is needed, or measure progress over time. Examples of data types are listed in Table 5.

Data collection forms designed to match the type of data being collected can make the collection, summary, and analysis easier. For example, the data form used to record the number of times a student initiates communication would be different than the data form used to gather information on what happens immediately before and after a behavior (i.e., frequency count table to tally occurrences vs. antecedent, behavior, consequence [ABC] log).

Data must provide accurate information regarding a student's performance. To have accurate information, the recording of data must be consistent. If, for example, only thirty out of fifty responses are recorded, randomly missing twenty, those twenty missed responses could significantly change the percentage of correct/ incorrect responses and views of student performance.

Recording the amount and types of cueing during intervention is essential to maintain an accurate record of student performance. Cueing data should include the type of cue provided, how often the cue was needed, and how the cue impacted student performance. This information informs the amount and type of support needed and, therefore, the student's level of independence with a targeted skill. Changes in the amount or types of cueing required may reveal changes in a student's level of independence. Student independence is one factor used to measure progress.

As part of data collection planning, the SLP should consider both continuous and interval data collection. Continuous data collection would involve recording each response for an entire session or activity. Interval data collection involves recording all responses within a specified time frame (e.g., three five-minute samples) or for a certain number of responses (e.g., the first twenty and the last twenty trials). Pre- and post-testing is also a form of interval data. Planning ensures that data collected will be an appropriate measure of student performance.

Data collected should be reviewed by SLPs at regular intervals and analyzed to determine outcomes. The review of data at naturally occurring times (progress reporting and annual IEP) also informs SLPs and IEP teams if adjustments to the program should be considered.

Graphs of data collected at regular intervals provide a picture of progress and can be used effectively with students and parents to discuss changes in performance for specific skills or show change over time. When a clear target is set for a skill, this can be included on the graph as the target or goal.

Plotting features such as aim lines and trend lines provide a visual of the target and performance trends. Trend lines also may provide an estimate of future performance and help the team predict targets for future IEP goals. It is important to review and summarize data periodically to ensure that students are making progress and assist in determining the need for any changes to the intervention.

Reviewing the purpose of the graph and its specific features, such as an aim line and a trend line, will help parents and other team members see student progress. Data also can show how changes in instruction have affected the student's progress. The graph should be labeled and contain enough descriptive information for it to be easily understood. It is important to review and summarize data periodically to ensure that students are making progress and consider instructional changes.

When interventions are successful, documentation should show student progress that exceeds the normal developmental trajectory. In other words, the student should learn more than they would have without the intervention or services. The amount of additional progress depends on a variety of factors including the severity of the disability, amount of practice or support, and student motivation. If a student is not progressing at a rate greater than their nondisabled peers, a review of the intervention as well as the amount or type of service should be completed.

Table 5. Types of Data Commonly Collected in Education Settings

Data Type	Description	Example
Cue Recording	This data notes visual, verbal, or physical cues given prior to a student response.	Recording which student responses were preceded by a visual cue for sound placement.
Duration Recording	Data records the length of time a student is engaged in a specific, discrete behavior. Any recorded behavior should have a clear beginning and ending, so that stop and start times are consistent.	Recording the length of time a student demonstrates joint attention during a structured task.
Frequency Counts	Data is collected on the frequency of a skill or occurrence of a behavior.	Recording the number of times a student correctly produces a target sound or uses pronouns correctly when telling a story.
Language/ Narrative Samples	Language/Narrative samples are a written record of student's expressive output.	A list of all utterances a student says when telling a story based on a wordless picture book.
Latency Recording	Data measures the amount of time between instruction or a prompt and the initiation of a student's behavior.	Recording the amount of time between the delivery of a carrier phrase and the student's response.
Pre-test/Post-test	This method involves testing a student on specific material before an intervention and giving a test on the same material after a chosen intervention has been implemented.	Scoring a student's narrative of a wordless picture book before and after intervention.
Rating Scales	Rating scales can be used to quantify descriptions or observations of behavior.	Description by the classroom teacher of a student's overall use of a target sound on a 5-point rating scale.
Observation	Notes may detail descriptions of events or a student's performance in a class. This data can be combined with other data, such as frequency counts or duration recordings.	Description of classroom events surrounding a communication breakdown.
Work Products	Collection includes any student-completed work that reflects targeted skills (e.g., tests, quizzes, writing samples).	Self-corrections made to a student essay following instruction on combining sentences.

Chapter Three: Assessment and Evaluation

Introduction

The evaluation of a student to determine whether they have a speech-language impairment must be multifaceted and include multiple data sources (teachers, parents, students, other service providers), types of data (quantitative and qualitative), a variety of types of measures and procedures (authentic assessment strategies, criterion-referenced measures, norm-referenced tests, dynamic assessment procedures, etc.), and several environments (classroom, playground, home) as appropriate for each student. As a result of the evaluation, the eligibility team will have a complete picture of the student's abilities and needs. The resulting speech-language evaluation report should provide a comprehensive assessment of the student's communication skills, identify strengths and weaknesses, and present information for determining whether the student has a speech-language impairment that adversely affects educational performance and thus requires specially designed instruction.

SLPs have expertise in language and should ensure that all components of the evaluation consider language differences and dialect use. Evaluation data that provides evidence of dialect use or language difference should be documented and may not be considered a disability. When language differences or dialects are inappropriately viewed as errors, students may be inappropriately identified as having a disability.

During a comprehensive evaluation, the IDEA (34 CFR §300.304 (b)(c)) requires that the following conditions are met.

- (b)(1)(i)(ii) Use a variety of assessment tools and strategies should be used to gather relevant functional, developmental, and academic information about the student including information provided by the parent in order to determine whether the child is a child with a disability and the content of the student's IEP, including information related to enabling the student to be involved in and progress in the general education curriculum, or, in the case of a preschooler, to participate in developmentally appropriate activities.
- (b)(2) Not use any single measure or assessment as the sole criterion for determining whether a child is a child with a disability and for determining an appropriate educational program.
- (b)(3) Use of technically sound instruments.
- (c)(1)(i) Are selected and administered so as not to be discriminatory on a racial or cultural basis.
- (ii) Are provided and administered in the child's native language or other mode of communication and in the form most likely to yield accurate information unless it is clearly not feasible to so provide or administer.
- (iii) Are valid for the purpose for which they are used.
- (iv) Are administered by trained and knowledgeable personnel.
- (v) Are administered in accordance with any instructions provided by the producer of the assessments. Therefore, any deviation in administration of a standardized, norm-referenced test or criterion referenced measure must be described in the evaluation report.
- (3) Assessments are selected and administered so as best to ensure that if an assessment is administered to a child with impaired sensory, manual, or speaking skills, the assessment

results accurately reflect the child's aptitude or achievement level or whatever other factors the test purports to measure, rather than reflecting the child's impaired sensory, manual, or speaking skills (unless those are the factors that the test purports to measure).

- (4) The child is assessed in all areas related to the suspected disability, including, if appropriate, health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities.
- (5) Assessments of children with disabilities who transfer from one public agency to another public agency in the same school year are coordinated with those children's prior and subsequent schools, as necessary and as expeditiously as possible, consistent with §300.301(d)(2) and (e), to ensure prompt completion of full evaluations.
- (6) In evaluating each child with a disability under §§300.304 through 300.306, the evaluation is sufficiently comprehensive to identify all of the child's special education and related services needs, whether or not commonly linked to the disability category in which the child has been classified.
- (c)(7) Assessment tools and strategies provide relevant information that directly assists persons in determining the educational needs of the child

A. Comprehensive Assessment

A thorough and balanced assessment is mandated by the IDEA. This process is critical to determining the existence of a disability and necessary for educational planning for the student. According to the IDEA (34 CFR §303.321), the term "assessment" refers to the evaluation process which includes review of existing info, determining whether additional info is needed, gathering additional info if needed, and making decisions on all information (34 CFR §303.321(a)(2))**.** In contrast, the term "evaluation" refers to the procedures used by qualified personnel to determine a child's initial and continuing eligibility (34 CFR **§**303.321(a)(2)(i))**.** A comprehensive assessment is made up of four parts; academic and educational activities, district wide assessments, SLP probes as well as norm-referenced SLP measures as noted by Table 6 below.

Table 6. Components of Comprehensive Assessment

Components of Comprehensive Assessments	
Academic and Educational Activities	**SLP Probes**
• Artifact analysis • Writing Samples • Contextual and Curriculum-based assessments • Observations in school setting • Educational record review • MTSS data	• Case history • Interviews • Language sample • Narrative samples • Stimulability Probe • Percent of Consonants Correct • PA Probe • Dynamic assessment • Play-based assessment • Response to intervention data
District Wide Assessments	**Norm-Referenced SLP Measures**
• Norm-referenced measures of academic achievement • Curriculum benchmarks	• Norm-referenced speech-language tests of articulation, semantics, syntax, morphology, fluency, etc.

A comprehensive speech-language assessment is student-centered, descriptive, and functional. It should answer the following questions:

- What is the student's current level of communication development?
- Is there evidence of a language difference?
- What can the student do without supportive prompts and what can the student do with appropriate support and scaffolding? That is, what is the student's ability to learn speech and/or language, learn to communicate effectively for needs within an academic environment, and use speech and/or language effectively to access curriculum content across all grades in an educational environment?
- What is the functional result of the student's current speech-language difficulties as demonstrated by performance in classroom activities and assignments, curriculum benchmarks, and academic testing?
- What language skills does the student need to be successful in their educational setting?
- What challenges does the student have in the educational environment? In what situations do they occur?
- How do the speech-language skills adversely affect the student's educational performance?
- What strategies are in place to assist the student to develop their speech-language skills? How does use of these strategies affect the student's academic performance?

B. Academic and Educational Activities

A comprehensive assessment should include multiple sources of information. Academic activities and contextual tests provide information that is available through every student's general school experiences. These school-based sources document how a student communicates in the school environment and how their speech and language abilities impact educational achievement. For preschool-age students who do not participate in a formal school program, these data will be gathered with parents and caregivers. Preschool data should focus on participation in the home and community and developmentally appropriate activities.

<u>Observation</u>

Systematic observations of school performance include reviewing educational records, collecting evidence of academic performance (including documents from class assignments, independent and group work, homework, class tests, and portfolios of class performance), and completing observations across a variety of educational contexts (classes, playground, extra-curricular activities, lunch, etc.). These observations provide insight into the student's speech-language performance during real communication tasks.

The purpose of systematic observations of school performance is to gather evidence about the student's functional communication skills. Systematic observations that reveal students' abilities to use speech and/or language to meet their academic and social needs may take many forms including published or locally developed classroom observation checklists. A variety of activities, including review of student work (artifact analysis), can be used to obtain the information for curriculum-based assessment, to evaluate phonology, morphology, syntax, semantics, pragmatics, sequencing, and attention in functional settings. For example, if student

work reveals difficulty with use of prefixes, suffixes, and morphemes (e.g., past tense -ed, plural -s, present progressive –ing, etc.), the SLP should note if this is also present during SLP probes. The SLP's analysis of the speech-language components of school-based information reveals the educational impact of a communication deficit.

Work Samples

A comprehensive and authentic assessment with a school-age student requires substantial amount of school-based information. This type of information includes documents, work products, and testing data that result from the student's participation in educational activities. These artifacts are the result of the student's interactions with teachers and peers (not the SLP) and provide data about the student's functional communication abilities in the educational environment.

Examining a collection of student work samples that document a student's achievement in specified areas is sometimes called artifact analysis. Student data may include classroom observations, anecdotal records, photographs, drawings, and/or work samples. Student data is not designed to compare a student to others but instead to document an individual student's current level of functioning and progress over time. Documentation of the information gathered via artifact analysis must clearly identify the tasks, the student's performance, and the student's communication strengths and deficits. Student work may be used to document progress or as a tool for students to assess their own work.

It may be particularly useful to review samples of a student's written language. Unedited writing samples can be helpful in identifying inadequate or limited syntactic structures, morphological errors, semantic misunderstandings, and phonological misperceptions (as found in spelling errors). Information gathered from written language can confirm the language impact of language deficits or reveal language areas that may need further assessment. In addition, writing samples can be used to document the educational impact of a speech sound disorder as research supports that if more than ten percent of the child's speech has atypical errors, the child is likely to have deficits in phonological awareness, reading, and spelling which would appear within writing samples (Preston & Hull, 2012).

Curriculum-Based Assessments and Measurements

Two tools that can be helpful for gathering educational data include curriculum-based assessments (CBA) and curriculum-based measurements (CBM). However, it is important to understand the differences between the two. A CBA is a teacher-created evaluative tool that examines student progress and mastery of concepts. These can be unit tests or quizzes, worksheets, and class projects. CBAs are not standardized. They may or may not be timed and are prone to teacher error. However, they do often show what a student can do on a typical day. On the other hand, a CBM is standardized tool that targets specific skills. A CBM has specific rules for scoring, starting points, and discontinuation points. CBMs can assess one skill area or many. Most CBMs have scripted protocols for delivery of the assessment. CBMs are long and require specialized training to administer. While it can be confusing to try and tie results of a CBM to everyday functioning in the school environment, a CBM can highlight strengths and weaknesses in more objective terms than a CBA.

A CBA for a student with a speech-language impairment will investigate the student's communication skills and weaknesses within the context of the language and communication demands of the curriculum and education environment. A CBA conducted by an SLP addresses the following areas:

- The speech-language skills and strategies needed by the student to participate in the general curriculum,
- Strategies the student currently uses,
- Skills, strategies, or compensatory techniques that the student must acquire, and
- Classroom instruction accommodations and modifications that will provide the student with greater opportunities for success.

C. District Wide Assessments

Contextual measures of school performance and academic achievement are an integral part of the educational process for all students. Norm-referenced tests are regularly or periodically administered to nearly every student to systematically evaluate students' academic achievement in comparison to their peers. In addition, students are regularly assessed on their academic skills through various forms of measurement sometimes referred to as "high-stakes testing" or "curriculum benchmarks." These types of testing are not part of an individualized assessment for special education. Instead, these tests are completed by all students within the context of participating in the education system. These measures are administered to groups of students to assess all students' general academic progress. The results of these tests become part of each student's educational record. Completing these measures requires students to actively use their oral and written language abilities including vocabulary, semantic, syntactic, morphological, metalinguistic, and literacy skills. As such, these measures do not directly assess components of speech language ability but, instead, reflect student's ability to activate their language skills to support their academic performance. These contextualized tests and measures can be important sources of information about a student's academic skills and progress. As part of a comprehensive assessment, the SLP can analyze the data to document a student's use of speech-language abilities during testing which supports the evaluation of functional communication abilities and helps to document the educational impact of a speech-language impairment.

D. SLP Probes

School SLPs may a variety of systematic probes across an array of specific speech-language skills. These probes allow the SLP to fully examine a student's current level of performance in the areas of speech, language form-content-use (phonology, morphology, semantics, syntax, and pragmatics), voice, and fluency. These probes are completed by the SLP, who elicits and documents performance in specific facets of communication as part of a full and complete individualized assessment. The purpose of these probes is to provide a clear and complete picture of the student's communication strengths and weaknesses. This information assists the team in determining eligibility and for those students who are eligible, informs the development of IEP goals. However, these procedures cannot replace observations of the student's interactions with peers and teachers in real educational settings because, to some degree, interacting with an SLP to probe skills is always an artificial communication task. SLPs are extensively trained in the administration and interpretation of these highly specialized assessment strategies which include collecting case histories, conducting interviews, completing play-based assessments,

administering developmental scales or criterion referenced measures, conducting discourse assessments, and completing dynamic assessment procedures.

In addition to school-based information that reveals the student's functional communication abilities and the educational impact of communication deficits, a comprehensive assessment also requires in-depth analysis of specific speech and language skills above and beyond the scoring of an assessment. It requires a close look at skills as they fall along the developmental continuum, as well as stimulability, patterns of errors, and a variety of other factors. Like school-based data, speech-language-specific evidence is also gathered through systematic observations and measurement. However, the purpose of these data is to identify if the student exhibits any variations in language use (dialect) and the type and degree of speech-language impairment, and to inform the development of appropriate recommendations. Cumulatively, the data collected through systematic observation and measurement of specific speech-language skills supports a determination as to whether or not a student has a speech-language impairment, and the development of recommendations accordingly. Table 7 provides a summary of the advantages and limitations of various assessment procedures.

SLP probes and decontextualized tests are specific to the field of speech-language pathology. These may include observation data, data from the provision of response to intervention services, probes of phonological awareness, norm-referenced tests, non-standardized tests, narrative samples, dynamic assessment and other SLP specific assessment tools. Gathering data from multiple sources will be described further in the next sections. A comprehensive assessment provides a picture of a student's functional speech and language skills in relation to the ability to access the academic and/or vocational program, and to progress in the educational setting. It does not rely solely, or even primarily, on norm-referenced assessment instruments to determine a student's communication abilities. Spaulding, Plante, and Farinella report, "The practice of applying an arbitrary low cut-off score for diagnosing language impairments is frequently unsupported by the evidence that is available (2006)."

Instead, a variety of data sources should be used to gather valuable information about the student's use of their communication skills in school. A comprehensive speech-language assessment includes performance sampling across multiple skills, with multiple people using different procedures from varied contexts. It is essentially developing a database of a student's abilities across tasks and settings (Secord, 2002) to examine a student's communicative functioning in an educational program. Therefore, it is the responsibility of the school based SLPs to assess the student using a variety of methods completed in a variety of contexts. For preschool through high school students, a comprehensive assessment should include evaluation of discourse skills through language/narrative sampling.

Methods of assessment for these elements include criterion-based and norm-referenced measurements, observations, including in the classroom, and artifact analysis such as class worksheets and student assignments. These assessment elements provide a baseline of performance, contribute critical information to how a student's communication skills affect their access to learning and the curriculum across the grades, and provide a means to document qualitative changes in the student's communication skills over time.

Table 7. Advantages and Disadvantages of Common Assessment Procedures

Method	Advantages	Disadvantages
Checklists, observations, and interviews	Information from multiple perspectives and environments (parent, teacher, student), easy to administer, information can relate directly to general curriculum	Limited ability to compare with grade- or age-level peers, can be standardized but may or may not be norm-referenced
Criterion-referenced measures	Designed for use in natural environments such as for preschoolers' interactions with parent, and in academic environments, can include clinician-developed probes, useful for: analysis of quality of responses, documentation of progress over time, and developing intervention plans, essential for determining a student's ability/inability to learn language at the same rate and "teaching" or intervention effort as same-age peers	Rarely can statistical comparison with grade or age-level peers be made, fewer measures available, can be standardized but may or may not be norm-referenced
Development scales and play-based assessments	Designed for natural environments, identifies strengths and weaknesses, easily interpreted	Fewer measures available, can be standardized but may or may not be norm-referenced
Dynamic assessment	Systematic assessment of a student's ability to improve speech-language performance as a result of mediated learning, provides evidence to distinguish speech-language impairments from speech-language differences (ESL/ELL, nonmainstream dialect, at-risk populations), yield data-based recommendations for use in classrooms and intervention plans	No statistical comparison with grade- or age-level peers, limited availability of standardized data collection formats
Language sampling and speech intelligibility measures	Measures communication skills during functional use Based on natural situations or educationally relevant scenarios such as narrative production or expository discourse, norm-referenced data for comparison to age- or grade- level peers available through approaches such as Systematic Analysis of Language Transcripts (SALT) and Developmental Sentence Scoring (DSS) database comparisons	Can be standardized but may or may not be norm-referenced, only a few language sample analysis procedures provide norm-referenced data for comparison with age-level peers (e. g., SALT, DSS); Often time-consuming
Norm-referenced tests	Objective comparison with age- and grade-level peers, generally reliable and valid measures for students who match the normative sample, widely available, measurable range of average performance	Assessment is in nonrealistic, 1:1 situation, limited normative population, sensitivity and specificity may be unacceptably low for some tests, inappropriate for planning intervention, inappropriate for documentation of progress, inappropriate for linking to general education requirements
Portfolio/ review of student file	Documentation of student performance in the general curriculum on an ongoing basis, documentation of historical information about the student	Limited ability to compare with grade- or age-level peers, limited validity

Case History

A case history is essential for gathering information on the development of a student's speech-language skills, significant birth, and medical, academic, and social-emotional functioning. Additionally, it provides information about language models and language use in the student's community. Interviews with parents, service providers, teachers, and the student provide valuable information about a student's effectiveness in communication. This information can provide insight into how the student's speaking, listening, writing, and reading skills are impacted by the student's speech and language skills in various environments. Student interviews, when appropriate, can disclose the student's perception of his/ her communication skills and their motivation to address these skills.

Medical history should also be part of the information gathered when a student is going through an evaluation and reevaluation. Medical history may include any updated information regarding hearing, vision, diagnoses (including diagnoses listed for the purposes of Medicaid billing), recent surgeries, chronic illnesses, as well as any changes in dental work that may impact speech production. This information can provide insight on additional factors that may need to be taken into consideration when looking at a student's progress towards IEP goals.

Play-Based Assessment (see also Chapter Ten, Section F)

Play-based assessment is a student-centered method for revealing a young child's communication skills in a natural environment. It is designed for students functioning between infancy and six years of age. A transdisciplinary play-based assessment permits an integrated approach to assessing multiple areas of development. Together, parents and professionals interact with the young child to examine a variety of skills (such as talking, eating, drawing, counting, walking, jumping, etc.) at the same time. The transdisciplinary team members often include SLPs, occupational therapists, physical therapists, psychologists, and special educators. A transdisciplinary, play-based observation supports efficient and concurrent analyses of the student's developmental level, learning style, and interaction patterns across multiple developmental domains. A play-based assessment includes the following advantages when conducting an assessment with very young students:

- Conducted in a natural, non-threatening environment,
- Generally, involves parents,
- Involves several professionals so the student's skills and deficits are viewed as a complex whole and not in isolated, individual segments,
- Identifies service needs, assists in developing educational plans, and evaluates progress,
- Permits a student to demonstrate what is known and eliminates the biases of norm-referenced tests that can penalize students with physical and other impairments,
- Provides a picture of a student's learning style, strengths, and weaknesses, and
- Is flexible and adaptive.

Dynamic Assessment (see also Appendix W, Chapter Ten, Section G and Chapter Fourteen, Section K)

Dynamic assessment focuses on the ability of the student to respond to learning experiences. Dynamic assessment includes a test-teach-test approach and mediated learning experiences that examine guided learning to determine the student's potential for change. The test-teach-retest

paradigm can be a highly informative assessment strategy that is particularly relevant for use in school settings. Dynamic assessment is particularly useful for students from culturally and linguistically diverse backgrounds. After guided practice, students who do not have speech and/or language impairments often show marked improvement in performance. Students who have speech and/or language skills that are readily modifiable in a dynamic assessment or short term interventions are less likely to be considered as having a disability due to having access and opportunity to instruction in specifically identified area of need.

Developmental Scales

Developmental scales are particularly useful with preschool students, students with significant developmental delays, and students with cognitive impairments. There are a number of valid and reliable published scales that can be used.

Criterion Reference Assessments

Criterion-referenced assessments compare a student's performance on a specific skill, grammatical structure, or linguistic concept to predetermined criteria. These measures permit assessment of communication skills in a social context. Criterion-referenced measures can have standardized or non-standardized administration procedures. Criterion referenced measures are dependent on the use of well-documented and validated developmental data (Laing & Kamhi, 2003).

Discourse and Narrative Assessments (See also Table 20 and Chapter Ten, Section H)

Discourse assessment probes of language skills assess ability beyond the single sentence level. Discourse assessments allow analysis of comprehension and expression across sequences of multiple utterances. These types of assessments include oral and written language samples, conversations, narrative samples (storytelling), and analysis of expository text (formal writing samples). Discourse can be analyzed for features such as knowledge of macrostructural elements, evidence of microstructural elements, and general language productivity measures
Examples of the various features for each category are below.

- Macrostructural Elements: Character, setting, initiating events; number of story propositions and episodes, informativeness
- Microstructural Elements: Pronominal reference, cohesive devices, tense appropriateness
- Language Productivity: Overall length, length per unit, Mean Length of Utterance (MLU), C-units, T-units, syntactic complexity, elaboration, morphological adequacy, lexical diversity

Narrative samples are yet another valuable assessment tool and may overlap with language sampling. "Narratives are stories about real or imagined events that are constructed by weaving together sentences about situational contexts, characters, actions, motivations, emotions, and outcomes (Petersen, Gillam, & Gillam, 2008)." Difficulties with narrative comprehension and production may have serious negative effects on students' educational and social achievement (Nation, Clarke, & Marshall, 2004). Narratives are sensitive indicators of language impairment in students as students and adolescents with compromised language skills typically produce shorter, less complete, and less elaborate narratives than their same age, typical peers. Therefore, assessment narrative abilities is an essential part of a comprehensive speech-language assessment.

There are several tasks and tools that SLPs may use to elicit narratives from students, and each has its strengths and weaknesses and may affect the characteristics of the narrative a student may produce. Examples of these include:

- Generating a new, creative story
- Retelling a familiar child's story (with or without the book) or a favorite movie
- Recounting some experience such as a trip to a circus
- Telling a story from a sequence of pictures with or without printed words associated with the pictures (e.g., "Frog Where are You?" Mayer, 1969)
- Telling a story from a single picture (Hughes, Ratcliff, & Lehman, 1998)
- Sometimes a procedural explanation task (such as explaining how to play Monopoly or baseball) is also included as one aspect of narrative sampling. This type of task taps into a student's ability to sequence steps and organize language, but it does not tap a student's knowledge of story grammar. As with language sampling procedures, the selection of specific elicitation tasks depends on the purposes that an SLP wishes to accomplish and the information about a student's abilities that he/ she wants to know.

Types of narrative tasks with different elicitation methods can be norm referenced or criterion based. Examples include "Bus Story" (Cowley & Glasgow, 1994), The Test of Narrative Language (Gillam, & Pearson, 2004), Systematic Analysis of Language Transcripts (SALT)-Narrative Sample Scoring (Miller & Chapman, 2004). As with conversational language sampling, in order to use any of the norm-referenced or criterion-referenced databases, it is essential that SLPs adhere to standardized procedures.

With regard to narrative structure such as story grammar or structure, two particular cautions are needed. One is that what is considered typical story structure/grammar of narratives has a strong cultural base. Some cultures, such as those with strong European influences (e. g., white Anglo American) may have more linear, topic-centered structures, whereas narratives of other cultures, such as Asian-influenced narratives or those with Native American influences may be more topic-associated and have more circular or winding structures (Paul, 2007; Westby & Rouse, 1985). Therefore, to judge the adequacy of a student's narrative structure an SLP must take into consideration the student's cultural and linguistic background and understand the nature of narratives produced within the culture. The second caution is that in some cultures, students are not encouraged or permitted to tell stories because narration is a privilege and responsibility reserved for adults. Consequently, some students may not have experience in storytelling or may be uncomfortable and even reluctant to engage in storytelling if asked. Dynamic assessment and observation approaches are particularly important with these students to determine if a student's different narrative structure is a result of cultural-linguistic differences, language impairment, or both.

There are two narrative assessment tools available for free online in addition to standardized versions that may be purchased from various publishers.

- NLM3 from Language Dynamics (also referred to as Cubed) is for preschool through school-age students. This narrative assessment also provides norms. https://www.languagedynamicsgroup.com/

- SLAM cards. There are different SLAM cards for various languages as well as age levels from preschool through high school. Follow this link and find the cards as well as an analysis tool from the ASHA Leaders Project. https://www.leadersproject.org/disability-evaluation/school-age-language-assessment-measures-slam/
- Timler's Share and Tell protocol (see Appendix U). Timler's Share and Tell protocol elicits multiple discourse types within a single language sample which may be especially helpful when looking at aspects of social communication.

Language Samples

Language samples are another valuable type of assessment tool. The professional literature in speech language pathology provides several best practice guidelines with regard to obtaining and analyzing valid language sampling procedures to use as a basis for eligibility decisions. These include

- To obtain a valid sample for analysis, elliptical responses should be minimized by avoiding wh-question prompts and yes/no questions. When students are prompted to converse through frequent what-where-which-or-when questions, the resulting language data including Mean Length of Utterance (MLU), is often skewed and yields invalid findings. Alternative conversational prompts, including modeling and "I wonder about…" statements, are preferable.

- Each sample should consist of between fifty and one hundred consecutive utterances in one sampling context.

- Sampling in more than one context and using more than one sample elicitation task (e .g., free play, conversation, narrative) is important since a sampling context itself constrains the characteristics of the language that a student will use (Miller, et al. 2005; Nippold, Hesketh, Duthie, & Mansfield, 2005). In order to use any of the several normed databases for comparing a student's language sample performance to peers, it is essential that SLPs use that same elicitation tasks and contexts as those on which the norms were developed.

- At some point in the language sampling process the SLP must create for the student sampling situations that stress and challenge the student's language use and language system (Lahey, 1990). Informal play, interview, or conversational situations may not be fully and sufficiently challenging to identify language performance that interferes with academic success. Narrative sampling is another type of language sampling that is a good way to introduce appropriate challenges to a student's language performance. It also provides information about a student's narrative structure and story grammar.

The SUGAR (Sampling Utterances and Grammatical Analysis Revisited) (Owens and Pavleko, 2016) provides the materials for an SLP to analyze a fifty utterance language sample in approximately twenty minutes and within another twenty minutes develop intervention targets and locate appropriate resources. https://www.sugarlanguage.org/downloads. The SUGAR assesses mean length of utterance (MLU), total number of words (TNW), clauses per sentence (CPS), and words per sentence (WPS) and is highly correlated with the results obtained from the Pragmatic Judgement, Syntax Construction, and Paragraph Comprehension of Syntax subtests of

the Comprehensive Assessment of Spoken Language (Carrow-Woolfolk, 1999). In fact, the sensitivity and specificity for the SUGAR in a 2019 study were reported as being higher than those reported in the examiner's manuals of some of the most frequently used language tests (Owens and Pavleko, 2019, Betz et al., 2013; Denman et al., 2017).

E. Norm-Referenced SLP Measures

SLPs must carefully review the norm-referenced tests they use. Use of multiple norm-referenced tests will be only as accurate as the results of the least accurate test selected. It is better to use a single, well-validated, and reliable measure that is normed on a population comparable to that of the target student, than to use a variety of norm-referenced measures that are poorly constructed or that used a normative sample that does not represent the target student.

Norm-referenced tests are standardized assessment tools that can be used to compare a student's performance with that of age or grade-level peers. Norm-referenced tests assess a student's current level of performance on a particular task or discrete skill. Poor performance on norm-referenced measures could be due to a disability or to a lack of experience or limited opportunity to learn the particular skills that are measured on the test. Caution must be taken that the student matches the population used for establishing norms, as described in the test manual. In addition, the test must be administered exactly as prescribed in the test manual. If not, then the statistical scores are not valid and should not be included in the evaluation report or used in the determination of eligibility for special education services.

Decontextual measures of speech-language specific skills are the traditional form of speech-language assessment where the SLP administers norm-referenced tests to an individual student. Norm-referenced measures usually cannot distinguish between communication disorders and communication differences due to instructional, cultural or dialectal experience. Norm-referenced tests are also not aligned with the curriculum and do not take into account how prior knowledge and experience impact performance. SLPs should keep in mind that norm-referenced tests are not contextually based and will provide an incomplete picture of the student's skills. Therefore, norm-referenced measures alone are not sufficient sources of data for determining eligibility for special education or the educational impact of a speech-language impairment. In addition, SLPs should carefully consider statistical properties of norm-referenced tests with regard to their ability to correctly identify students with speech-language impairments which is consistent with the requirements of the IDEA (Spaulding 2006).

Norm-referenced instruments are designed to parse speech-language abilities into discrete skills according to a particular theoretical framework. These discrete skills are then measured through formal testing procedures which is an artificial communication task. Therefore, these assessment procedures are referred to as decontextualized tests of speech-language abilities. The purpose of these tests is to produce standard scores that allow a student's performance on that particular test to be compared to that of their typically developing peers.

Performance on norm-referenced tests can reveal areas of communication that should be further assessed through systematic observation and standard probes of speech-language skills. However, performance on norm-referenced tests does not document functional performance in educational settings. A balanced and comprehensive assessment will include data from all four

sources of information, with only a limited amount of data in the form of norm-referenced measures of speech-language skills. A comprehensive assessment does not rely extensively or solely upon norm-referenced tests.

F. Selection of Norm-Referenced SLP Measures

The IDEA requires use of technically sound instruments (34 CFR §300.304 (b)(3)). This is likely because research has shown that most norm-referenced language tests do not have sufficient accuracy to identify a language disorder in the general population based on test performance alone (Vance & Plante,1994). In addition, norm-referenced measures are not sufficient sources of data for determining eligibility for special education or the educational impact of a speech-language impairment as they usually cannot distinguish between communication disorders and communication differences due to instructional, cultural or dialectal experience and are not aligned with the curriculum in order to account for how prior knowledge and experience may impact performance. Therefore, SLPs should carefully consider statistical and psychometric properties of norm-referenced tests with regard to their ability to correctly identify students with speech-language impairments (Spaulding 2006) as tests vary in their technical adequacy and diagnostic accuracy. Best practices in speech-language pathology include consideration of the sensitivity and specificity of published assessment instruments (Betz & Eickhoff, 2013; Spaulding, Plante, & Farinella, 2006). Table 8 outlines several psychometric properties at a glance.

Table 8. Psychometric Properties

Specific Features	Questions to consider	What to look for
Diagnostic Accuracy: How well does the test identify the presence/absence of disorder?		
Sensitivity	How accurate is the test in identifying children with language impairments?	Greater than or equal to 80% or .80
Specificity	How accurate is the test in identifying children with typical language skills?	Greater than or equal to 80% or .80
Cut points (cut off score or cut score)	Is sensitivity and specificity listed at several cut points/cut-offs?	Cut points are not consistent across tests. Each test has different and unique cut points. Therefore, each test should be reviewed for this information. Use the cut score that gives the best balance between sensitivity and specificity.
Reliability: Can you repeat the test and get the same score?		
Inter-examiner Reliability	How much does the person who is administering or scoring the test influence the results?	Above .90 is good reliability Acceptable reliability is .7-.8 (Plante, 2021)
Test-retest Reliability	How much do the scores fluctuate over short periods of time?	Above .90 is good reliability Acceptable reliability is .7-.8 (Plante, 2021)

Validity: Does the test measure the skills that it's designed to measure? Does it measure those skills accurately?		
Construct or predictive validity	How well does the test predict later performance on another, valid language assessment?	Look for whether there is a significant correlation between score on the test and scores on *other* language measures, or if there is an association between tests scores and need for therapy.
Concurrent validity	How well do the scores correlate with the scores of other language tests that evaluate the same skills?	A strong correlation is equal to .70 – 1.0 and a moderate correlation is .69 - .50.
Standard Error of Measurement (SEM): confidence that the scores on the test are accurate/the level of uncertainty that a single test performance observed by the evaluator represents how the child would perform if the test were administered multiple times		
The SEM is essentially the reverse of reliability—the greater the reliability of a test, the smaller the standard error of measurement and the more precise the score.	What is the confidence interval?	Whenever a written report includes a standard score, the corresponding confidence interval at 90% or 95% should also be provided.
Normative sample: Is the student being assessed represented within the normative sample used to establish a baseline distribution for a score or measurement and against which the score or measurement can be compared		
Students not fairly represented in the norming sample of a test produces invalid results.	What is the geographic residence, socioeconomic status, and typicality and atypicality of the subjects?	Look for whether the student being tested is included within the sample used for determining norms.
	What is the size of the norming sample?	Greater than 100 subjects per age group would be considered a reliable amount.
Bias: Unjustifiable discrimination against a certain population or subgroup		
Bias may be present both in the examiner and in testing materials.	Is the examiner familiar with cultural and linguistic features specific to that student?	If there is suspicion of bias within the assessment, consider alternative methods of assessment such as dynamic assessment and other processing dependent tasks such as working memory and nonword repetition tasks.
	Is there content bias such that a student with limited background knowledge may be unfairly assessed?	

Adapted from Evaluating Standardized Language Tests: Simplified Checklist of Psychometric Properties by Melissa Brydon, PhD, CCC-SLP

One challenge for the SLP is to determine which assessment instruments can be used to accurately characterize a student's communication skills and assist in determining if a speech or language impairment is present. Tests must be able to correctly identify students with language impairment as 'impaired' and those with normal language as 'normal' as well as meet acceptable

standards for psychometric properties. Table 9 provides a list of factors to consider and may help SLPs review tests for possible use. The SLP must be cautious in deciding which assessment instruments to use. Neither the reputation of the author or publisher of the test nor the fact that an earlier version of a test met specific psychometric standards is a guarantee that the measure meets the standards. Articles in peer-reviewed journals that "assess the assessments" provide research-based comparisons and provide information about the relative performances of tests in terms of validity, reliability, sensitivity, and specificity.

Sensitivity and Specificity

In order to have confidence in the outcomes of an assessment process, the SLP must carefully consider all of the psychometric properties of norm-referenced tests, review them before using with a student, and be able to support the decision to use specific tests as part of the eligibility or dismissal process. These considerations must be a critical part of any comprehensive assessment.

Current best practices in speech-language pathology include consideration of the sensitivity and specificity of published assessment instruments (Dollaghan, 2004; Spaulding, Plante, & Farinella, 2006). Sensitivity means the rate at which a test can correctly identify students with language impairments as having a significant deficit. Specificity refers to the rate at which students who have typically developing language abilities are found by that test to have adequate language performance. For more than a decade, researchers have suggested that norm-referenced measures should have at least 80 percent accuracy in discriminating language abilities (Plante & Vance, 1994, Spaulding, Plante, & Farinella 2006). SLPs are encouraged to review the technical manuals of published tests to ensure that publishers have reported sensitivity and specificity data for norm referenced tests. When these data have not been included by the publisher, SLPs should calculate sensitivity and specificity using reported norming data within the test manual, contact the test publisher for the necessary information, or report the data qualitatively without scores, but should not use as a basis for determination of a disability.

Another resource that can be used to analyze a norm-referenced assessment is Mental Measurements Yearbook published by the Buros Institute. The yearbook provides information on tests in print, mental measurement yearbooks, access to current commercially produced tests as well in-depth evaluations of norm-referenced tests by assessing their reliability, validity, norming sample, and relationship to other norm referenced tests.

Validity and Reliability

Reliability refers to the consistency of measurement. It indicates whether an instrument is stable and repeatable; the probability that the instrument would produce similar results if readministered to the same student under the same conditions by the same tester or by several different testers. It is important to consider reliability of the whole test and each subtest. A review of the test manual should provide information on the various types of reliability as described below.

- Test-retest (data that show that the test scores are dependable and stable across repeated administrations),
- Inter-rater (data that show that scoring is objective and consistent across examiners),
- Alternate form (different forms of the same test show consistency of performance), and

- Internal consistency (assumes all of the items are measuring the same thing) (Sattler, 1988).

A measure's validity informs the user as to whether test measures what it purports to measure. The test manual should provide detailed information as to the validity evidence that supports the test's interpretations and uses. Validity includes content validity (adequate sampling of the content areas and if the content areas are generally accepted as the proposed construct, concurrent validity (test scores are related to some currently available criterion measure), predictive validity (obtained score is an accurate predictor of future performance on the criterion), and construct validity (how the test items relate to the theoretical construct of the test) (Sattler, 1988).

Table 9. Checklist for Reviewing Norm-Referenced Tests

Name of Test:		**Edition:**
Reviewer:		**Date:**
Yes	No	Does the normative sample represent the most recent census data?
Yes	No	Is the normative sample large enough?
Yes	No	Does the normative sample include representative samples of all populations that the test states that it measures?
Yes	No	Does the test meet sensitivity standard of at least -80?
Yes	No	Does the test meet specificity standard of at least .80?
Yes	No	Does the normative sample represent the target students in terms of racial-ethnic and geographic status?
Yes	No	Does the test meet reliability standard of at least .80?
Yes	No	Is it a valid measure for the planned assessment? (Does the theoretical model upon which the test is based represent currently accepted research?)
Yes	No	Does the test have test-retest validity?
Yes	No	Does the test have predictive validity? Is the predictive validity relevant to the purpose of the planned assessment?
Yes	No	Do the test items or scoring procedures penalize students who are not speakers of Standard American English?
Yes	No	Does the test manual provide cautions in the use of age equivalent scores?
Yes	No	Does the test provide valuable assistance in analyzing a student's speech-language skills?
Yes	No	Is this the most recent version of the test?

Normative Sample

The normative sample for every assessment should be reviewed for several factors. It should be based on the most recent national census data and include representative samples of all populations that the test states that it measures, including gender, ethnicity, race, native language, age, and primary caregiver education level. The sample should include a variety of geographical locations (e.g., urban, rural, and suburban). Prior to administration, it is important to review the normative sample information to determine whether it is an appropriate fit for the student being assessed. Testing a student who represents a population not fairly represented in the norming sample would produce invalid results. Best practice is to administer the most recent version of a test because it represents the most current census data and follows updated research on validity and reliability (Jakubowitz and Schill, 2008).

Scoring procedures should be analyzed to determine whether correct answers are based on use of General American English, which will potentially penalize students who use other dialects or languages. This information is particularly critical when using norm-referenced tests for students who come from culturally and linguistically diverse backgrounds. In such situations, norm-referenced tests that do not represent diverse groups in the norming sample must be replaced with other assessment procedures to avoid inaccurate results.

"Breaking" Standardization

On some occasions, the SLP may not be able to follow the administration protocol because of a particular situation or a student's particular needs. Examples include a fire drill interruption during the assessment session, additional time required because of physical limitations, or use of positive reinforcement. Any variation must be documented as a nonstandard administration. Students with behavior or sensory needs and some disabilities may require supports including providing breaks or reinforcements, enlarging the text or pictures, transferring the test to an alternate input device, and using sign language to present material and/or provide responses. The same situation applies when administering a norm-referenced test to a student older than the test norms. Any deviation from the standard administration or use of a test not normed on the appropriate population for the specific student must be reported in the evaluation report. In such situations, the test may be used only to provide qualitative information as the deviation from standard administration invalidates the scoring.

Prior to test administration, the SLP should thoroughly review the test manual. This includes analyzing the norming information and test administration guidelines. Failure to comply with the strict, standardized administration procedures of a norm-referenced test invalidates the test results. The standard scores, percentile ranks, and stanines from nonstandard administrations of norm-referenced tests must not be included in evaluation reports. Standard scores are equal interval units and provide statistically valid information about test performance only when resulting from a standard administration with a student for whom the norming sample is representative. One way to report the results of a nonstandard administration would be to describe the percentage of items correct and the type(s) of errors made on particular tests or the age ranges in which most correct responses fell. If standard administration procedures are altered, the evaluation report should indicate that the test was administered only for informational purposes. Best practices within the profession require that the SLP practice administering a measure at least once prior to testing a student.

Bias

Norm-referenced test scoring procedures based on use of General American English may potentially penalize students from culturally and linguistically diverse backgrounds. When using norm-referenced tests with students who come from culturally and linguistically diverse backgrounds, provide consideration for dialect use and consider use of other assessment procedures. To avoid biased or inaccurate reporting of results for students from culturally linguistically diverse populations, SLPs should address cultural or linguistic differences in the evaluation report. Importantly, when eligibility teams focus on norm-referenced tests, it is possible to inappropriately identify a student with a cultural or language difference as having a speech and/or language impairment. The team should consider many sources of information and

discuss cultural and linguistic bias before determining that a student is eligible for special education.

Purpose

Norm-referenced tests are designed for screening and assessment, not to select goals or determine progress. Therefore, norm-referenced tests should not be used to write IEP goals and objectives/benchmarks or to determine whether a student has met his or her IEP goals and objectives/ benchmarks. Norm-referenced tests are used as only one component to determine the possible presence of an impairment. Likewise, norm-referenced tests should not be used to determine whether a student has met the functional communication outcomes written in the IEP when considering dismissal from speech services. Systematic observations, a review of academic and educational activities, and SLP are preferred in order to provide critical information regarding the changing nature of a student's impairment and its impact on the student's ability to access the educational curriculum.

Age Equivalency Scores

A very important caution must be noted regarding age-equivalency scores. An age-equivalent score indicates the age at which a certain raw score is mathematically average. Describing a student's performance as equal to that of a student of a certain age is statistically incorrect. It does not consider a range of normalcy as is provided by the standard error of measurement (SEM) for standard scores on a norm-referenced test. Therefore, age-equivalent scores imply a false standard of performance. Many teachers and parents erroneously assume that an age-equivalent score can reflect a student's standing within a group of same age-peers. Because the age equivalent score is the obtained or estimated average score for that particular age, simple arithmetic shows that for any group of students of a given age, about half will be expected to achieve a lower raw score, and about half will achieve a higher raw score, giving a broad range of normal performance. Consequently, age-equivalent scores should not be used when determining whether the student has a speech-language impairment or to demonstrate change. Best practice is not to report age-equivalency or grade equivalency scores on a norm-referenced assessment and/or on an evaluation report.

Generalizations

Another important caution is to refrain from generalizations about language based on assessments that are not designed for this purpose. For example, if a student scores low on the similarities subtest of the Wechsler Intelligence Scale for Children (WISC), this should not be construed as an indicator of impaired language because the subtest was not designed for that purpose. In addition, some assessments used in a comprehensive evaluation are designed to address cognitive academic language proficiency (CALP) which is the more formal academic language required for success in school, used in classrooms and across the various content areas. Academic language is characterized as being abstract, context reduced, and specialized. In contrast, assessments of language by an SLP are designed to look closely at basic language skills used in everyday activities according to the age appropriate and expected continuum of development. This type of language is context embedded, meaningful, cognitively undemanding, and non-specialized. Language tests administered by an SLP have sensitivity and specificity specifically designed to determine students with a language disorder from those who do not present with a language disorder.

Subtest Scores (See Chapter Nine, Section A)

A final caution to consider is with respect to the reporting of subtest scores. Omitting subtest scores may obscure pertinent information regarding areas of weakness if only composite scores are listed. Of particular note are norm-referenced assessments of phonemic and phonological awareness/phonological process which can be administered by school psychologists, SLPs and other appropriately qualified personnel. When the composite score is the only score reported, teams are unable to ascertain gaps in phonological and phonemic awareness development which would be revealed based on performance on specific subtests. These gaps may have a profound impact on reading ability and are likely remediable with systematic and explicit instruction without knowledge of these weaknesses, goals and/or interventions cannot be designed to meet those areas of need. Without meeting these areas of need, students will likely struggle to master the code of written language and demonstrated by poor performance in reading and writing. Therefore, reporting all subtest scores especially for assessments of phonemic and phonological awareness can assist with informing instruction which should result in closing instruction gaps resulting in improved outcomes.

G. Interpretation of Evaluation Data

Once the data collection (assessment) is completed, the information must be interpreted and reviewed by the evaluation team. Interpretation of the assessment components requires careful review of norms on norm referenced assessments and integrating additional data, including systematic observations and contextualized assessments, to create a complete picture of a student's communication skills. It is critical that there not be an over reliance on any one piece of information or assessment source. Assessment data should represent all four sources of information: academic and educational activities, district wide assessments, SLP probes and norm-referenced measures. Standard scores from norm-referenced speech-language tests should be only a small part of the assessment picture. The strengths and needs of the student must be considered within the context of the school, home, and community.

H. Cognitive Referencing

Cognitive referencing refers to the practice of finding students ineligible for special education or for related services when their language skills are deemed to be commensurate with their cognitive or intellectual abilities. The IDEA does not require a significant discrepancy between intellectual ability and achievement for a student to be found eligible for speech-language services. The use of cognitive referencing within an organization to determine eligibility for speech-language services is inconsistent with the IDEA's requirement to determine services based on individual needs. Additional information on cognitive referencing can be obtained in ASHA's technical report Access to Communication Services and Supports: Concerns Regarding the Application of Restrictive "Eligibility" Policies (2002).

The practice of cognitive referencing also assumes that the psychometric properties of each of the norm-referenced assessment instruments used to assess language and cognitive abilities are similar. This is not true since each measure has different theoretical bases and different standardization samples. Additionally, intelligence measures cannot be assumed to be a meaningful predictor of a student's response to intervention or instruction. Students with significant impairments of intellect may respond well to speech-language interventions, therefore

improving their ability to succeed academically and in the community. Cognitive referencing asks the question “Who has language skills significantly lower than their nonverbal cognitive skills?” when identifying candidates for intervention. Instead, the better question is “Who has language and communication skills that are insufficient to support them in the important context of school? (Nelson, 1995)”.

I. Educational Impact of the Speech-Language Impairment

The IDEA and South Carolina eligibility criteria requires that determination of a speech-language impairment include documentation of a current educational impact. This means how the disability affects the student’s progress and involvement in the general curriculum or for preschoolers, the effect on their ability to participate in age-appropriate activities. Consideration should be given to the academic, functional, vocational, and social-emotional aspects of the speech-language impairment.

- Academic areas include performance across all content areas most specifically activities related to spoken and written language (reading and writing). This may be determined by grades as well as performance on norm-referenced tests that are regularly or periodically administered to almost all students to systematically evaluate academic achievement in comparison to their peers. Educational impact would need to be supported by evidence and data that the student struggles in most areas or has very limited ability in most areas when compared to peers. Student work samples and checklists completed by teachers, parents, or the student themselves are valuable pieces of data to use as documentation of educational impact (see Appendix G).

- Vocational areas include job-related skills that an age-appropriate student cannot demonstrate due to the speech-language impairment. These include the inability to understand/follow oral directions, inappropriate responses to coworkers’ or supervisors’ comments, and/or the inability to answer and ask questions in a coherent and concise manner.

- Social-emotional considerations of a speech-language impairment may include the student’s awareness of and feelings of frustration about their speech difficulties, teasing and bullying as a result of speech difficulties and/or information shared by parents or teachers that the student may avoid certain speaking in situations or substitute certain words or phrases in order not to have to say them.

- According to ASHA, educational impact includes the impact on functional communication in key school situations and on quality of life (Beilby, Byrnes, Yaruss, 2012; Yaruss, Coleman, & Quesal, 2012). As indicated by Ribbler (2006), "For students who stutter, the impact goes beyond the communication domain. In fact, stuttering can affect all areas of academic competency, including academic learning, social-emotional functioning, and independent functioning". Fluency and voice disorders, however, do not necessarily affect test scores or subject grades. Therefore, it is the role of the SLP to inform and educate the IEP team about the multiple ways stuttering can influence educational performance including quality and quantity of oral classroom participation (i.e., classroom discussion, oral presentations, class speeches, oral testing, etc.), difficulty

working and communicating within cooperative learning groups, hesitation to verbally express their ideas, offer explanations, or ask and answer questions to familiar or unfamiliar adults and possible self-imposed limitations on the student's social interactions with peers and adults in locations such as the cafeteria or playground. This can be documented by using the Overall Assessment of the Speaker's Experience of Stuttering (OASES) and difficulties with voice can be documented using the Pediatric Voice Index (see Appendix Y).

J. The Speech-Language Pathologist's Evaluation Report

The only time there should be a stand-alone speech-language evaluation report is if speech and language is the only area of information being gathered. Even so, the evaluation planning team must have documented that all possible areas were reviewed, and speech and language was determined as the only area in need of additional information. If other areas (in addition to speech and language) are in need of evaluation, the SLP' report should be integrated with all other evaluations into one report in order to provide a comprehensive picture of the student's strengths and needs.

All speech-language assessment reports should be written in easily understood language without extensive use of professional jargon. The goal of the assessment report is to communicate valuable findings to enable all team members, including the parents, to meaningfully participate in the eligibility discussion. When professional terminology is used, it should be clearly defined (e.g., "phoneme" could be defined with the layperson's phrase "speech sound").

The speech-language pathology evaluation report should

- Address the referral concerns listed during evaluation/reevaluation planning.
- Identify the student's preferred mode of communication if other than verbal (i.e., sign language, augmentative communication).
- Include an analysis of strengths and weaknesses in the areas assessed.
- Incorporate any speech-language medical diagnosis in order to provide consistency across documentation.
- Evaluation results should be fully explained.
- The report should describe the impact of any speech-language impairment on the student's ability to access and progress in the general educational curriculum.
- Emerging abilities may serve as prognostic indicators in determining the potential for improvement.
- The evaluation report should reflect the interrelationship of a variety of factors that impact communication.
- Consider include the student's age, attention skills, cultural/ linguistic background, sensory deficits (hearing/vision), and other health factors.

Chapter Four: An Overview of SLPs in General Education and Special Education

Introduction

SLPs can play multiple roles in supporting student outcomes. The increase in expanded roles of the SLP is a response to the more complicated needs of students currently enrolled in schools. This includes more medically fragile students, increasing numbers of students on the autism spectrum, advances in the field of SLP in the areas of language, speech sound development, and intervention, greater reliance on evidence-based practices, as well as federal (ESSA and IDEA) and state (Read to Succeed and MTSS) legislation. Working collaboratively with classroom teachers, special education teachers and support personnel supports the end goal of automaticity and generalization of speech and language skills across educational activities. Teachers and SLPs each have unique training and expertise that skill set that can be a support to one another. The classroom teacher has expertise in curriculum, classroom management, and group instruction while the SLP has knowledge about the continuum of speech and language development, the impact of delayed development of academic success, language underpinnings for literacy, evidence-based practices, and individualized intervention strategies. The marriage of these two sets of complimentary professional skills can result in improving outcomes for students.

A. SLPs Role in General Education (Intervention)

The purpose of general education intervention is to intervene early for any student who is presenting academic, functional, or behavioral concerns. Early intervention leads to a better understanding of the supports students need in order to be successful in the general education curriculum and school setting. This is often referred to as Response to Intervention (RtI) or Multi-Tiered System of Support (MTSS).

The SLP's role in general education is supported by ASHA's workload approach and supports the success of all students toward becoming college and career ready (Nipplod, 2010). The SLPs role in general education is also supported by the Office of Special Education Programs (OSEP) which states that "special education staff may be assigned to work as part of a collaborative team that is working with struggling learners… special education personnel may share their expertise in addressing the needs of children with disabilities with other personnel, as this may be considered professional development for general education teachers to assist them in identifying, locating, and evaluating children with disabilities in accordance with the child find responsibilities in 34 CFR §300.111" (OSEP, 2013).

It is important to clarify and clearly understand the difference between response to intervention (RtI) and multi-tiered system of supports (MTSS). MTSS is similar to RtI in that it is a problem-solving model. Where MTSS differs from RtI is that RtI is a focus specifically on the intervention whereas in an MTSS framework the focus is on core instruction (tier one instruction) as the first intervention. In doing so, this provides the greatest opportunity to have a significant impact on student outcomes because tier one is where the majority of instruction takes place. Therefore, with good, high-quality, evidence-based materials along with knowledgeable teachers, the focus can be on prevention of difficulties. Therefore, when the focus is on utilizing data from core (tier one) instruction, universal screening data, progress monitoring data as well as ensuring fidelity of implementation there can then be a layering of supports. To be clear, the focus of MTSS is solidly on prevention within core instruction.

When a student is suspected of having a disability in any area and may be in need of special education and/or related services, the process begins with a referral to the school's problem-solving team (see Appendix B). While the referral may be for a specific area of concern, all areas must be reviewed and discussed by the team in order to look comprehensively at the student's strengths and needs as required by the IDEA. Students should not be referred for disability specific evaluations. Rather, the team should conduct a review of all existing data (34 CFR § 300.305(a)(1). Looking holistically at the student helps to identify all areas of potential areas of disability, provide appropriate supports to students in a timely manner, and assists with the provision of support via a problem-solving process. It is helpful to ensure that all team members have an understanding of the two-prong test for determination prior to making a referral for a suspected disability under IDEA (for more information about the "two prong test" see Section E in this chapter).

The data reviewed must include an analysis of medical and developmental history, educational history, English Language Proficiency, cognitive processing, academic achievement, communication, adaptive skills, motor skills, and social-emotional skills. Other pertinent areas should include a review of

- Participation in and response to evidence-based intervention
- Review of curriculum and methods used for the student's reading instruction from kindergarten through the current grade level in the provision of systematic and explicit instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension
- Participation and response to multilingual supports
- Attendance
- Trauma
- Consideration of attention related issues
- Review any loss of instruction or lack of opportunity to learn
- Involvement with any outside agencies
- Private evaluations conducted within a reasonable timeframe (as determined by the team but not greater than one year).

Upon completion of the review of all pertinent data, the team must identify what additional data, if any, are needed to determine whether the child is a child with a disability, the educational needs of the child (34 CFR § 300.305(a)(2)(i)(A) as well as whether the child needs special education and related services (34 CFR § 300.305(a)(2)(iii)(A).

B. Observation, Intervention, and the SLP

Observation

When speech and language is suspected as a potential area of disability or a possible contributing factor for other suspected disabilities, a wide variety of data must be gathered in order for the team to conduct a review of all existing data. The data the SLP gathers should begin with a review of the teacher and/or parent's concerns as well as any strategies and accommodations attempted in the general education setting. Then, the SLP should observe the student in the general education setting which may occur at various times of day and locations throughout the school (see Appendix D and E). The use of screening instruments is not recommended as the screening of a student by a teacher or specialist to determine appropriate instructional

strategies for curriculum implementation is not considered to be an evaluation for eligibility for special education and related services 34 CFR §300.302 and should not be used as a decision-making tool to determine whether or not to proceed with a referral to the school's problem-solving team. The use of a single screening tool is not an acceptable method of data gathering as it is only one source of data. If a screening instrument is used as one part of a comprehensive data gathering process, the screening instrument must have appropriate validity and reliability, be appropriate for the student with respect to normative sample of the screening instrument, and the instrument must have acceptable sensitivity and specificity. Instead, the SLP may choose to document information and observation findings on a one-page summary that can be easily shared with parents, teachers, and the problem-solving team when discussing potential areas of concern and potential recommendations (see Appendix F).

An observation is the gathering of qualitative data which involves describing and reflecting on what has been observed. Qualitative data acknowledges that communication does not occur in a vacuum, making the environment and perspectives of communication. Data should come from a variety of sources which may include

- Observation of the student in a variety of settings and times of day within the school.
- Interviews and discussion with teacher, parents or students.
- Review of student work samples.
- Analysis of universal screening data and other norm-referenced assessments administered in the general education setting.
- Student response to accommodations and general education interventions.

Intervention

Intervention is a critical factor when the student is demonstrating academic difficulties. Without interventions, the team will not be able to determine whether a student's learning difficulties are due to a disability and require special education services or if the student is merely in need of additional services or supports for a period of time. Using tiered intervention provides the LEA with data-based documentation of repeated progress monitoring at reasonable intervals that indicate whether the instruction and educational interventions and strategies presented to the child in the general education setting were not adequate and indicate whether an evaluation for special education is appropriate (34 CFR § 300.309(c)(1)). However, when there is clear suspicion of a disability, the student is not required to participate in interventions prior to evaluation as intervention strategies "cannot be used to delay or deny the provision of a full and individual evaluation pursuant to 34 CFR §300.304-300.311, to a child suspected of having a disability under 34 CFR §300.8" (OSEP, 2011). Therefore, intervention by the SLP prior to an evaluation is not required when there is clear suspicion of a disability.

As it relates specifically to intervention and consideration of a Specific Learning Disability which is often part of a comprehensive there are important dynamics to keep in mind. Specific Learning Disabilities criteria is based in part on an insufficient rate of progress to scientific, researched-based intervention(s) matched to the area(s) of need, there may be questions related to whether intervention is warranted for oral expression and/or listening comprehension. According to the Simple View of Reading theoretical framework (Gough & Tunmer, 1986; Hoover & Gough, 1990) which states that reading comprehension is the product of decoding and language comprehension, listening (or linguistic) comprehension refers

to comprehension of written text that is read out loud. However, vocabulary and listening comprehension load on the same construct and jointly predict reading comprehension (Protopapas et al., 2012; Tunmer & Chapman, 2012). Therefore, given that oral language appears to operate as a single construct in the early elementary school years, students at risk for difficulties related to reading and writing are likely to benefit from interventions that provide rich language experiences as opposed to interventions that focus on a single component of language (e.g., semantics, syntax or morphology) and/or a curricula that is focused on school-based language proficiency and the development of academic language (Schleppegrell, 2012; Uccelli et al., 2014) to promote better language development and subsequent reading comprehension.

The regulations of 34 CFR §300.301(b) allow a parent to request an initial evaluation at any time to determine if a student is a student with a disability. If a parent initiates a referral for a special education evaluation, the evaluation cannot be delayed or denied due to the student not completing the general education intervention process. Although problem-solving activities are an important part of the system, it is worth stating again that they cannot be used to delay processing a referral for consideration of a special education evaluation when immediate action is warranted.

When direct intervention support is warranted, these services should be provided for a defined period of time (typically six to eight weeks), then data should be reviewed with the team to determine next steps. An explanation of participation in direct intervention should be made clear to parents and other school staff in order to avoid confusion with the requirements of IDEA and parent permission must be obtained if the student is removed from the general education setting for the provision of these supports by the SLP. While interventions may not be used to delay or deny an evaluation, interventions may be utilized concurrently with the evaluation process and the data from those interventions may be used to support findings from the evaluation. Considerations for the provision of direct intervention may include whether the student is stimulable for the error phoneme(s), how many phonemes are in error and which phonemes are in error. For example, if the student demonstrates a single phoneme error, indirect intervention through teacher and parent training is appropriate. If there are two or more phonemes and the student is not stimulable for production of these error phonemes, direct interventions may be appropriate for a defined period of time and then progress should be reviewed.

Interventions are part of the problem-solving process to determine whether the child is suspected of having a disability and intervention data should be monitored frequently. When interventions are successful, documentation should show student progress that exceeds the normal developmental trajectory. In other words, the student should learn more than they would have without intervention. If a student is not progressing at a rate greater than their peers, a review of the intervention as well as the amount or type of intervention should be completed.

If it is unclear whether the student is suspected of having a disability in the area of speech and language, interventions may be provided as part of Coordinated Early Intervention Services (CEIS) under the IDEA. CEIS are services provided to students in kindergarten through grade 12 (with a particular emphasis on students in kindergarten through grade three) who are not currently identified as needing special education or related services, but who need additional academic and behavioral supports to succeed in a general education environment. Students who

are not yet in kindergarten may *not* receive CEIS but may participate in MTSS outside of CEIS. The preamble to the IDEA Part B regulations clarifies that students who received special education in the past, but are not currently receiving special education, *are* also eligible to receive CEIS. (71 CFR 46540, 46626 (Aug.14, 2006)). While the majority of SLPs are fully funded via IDEA which means that 100 percent of services and supports must be in service of implementation of the IDEA, there are other funding options the LEA may choose to utilize. This may apply to all SLPs or a few. However, even if the SLP is funded 100 percent through the IDEA funds, the IDEA does allow LEAs to designate up to fifteen percent of funds for CEIS services using appropriate reporting procedures. Finally, the regulations in 34 CFR §300.226(d), require that each LEA that implements CEIS to report to the State on the number of students who received CEIS and the number of those students who subsequently received special education and related services under Part B during the preceding two-year period (i.e., the two years after the student has received CEIS). (71 FR 46540, 46628 (Aug. 14, 2006)). States and LEAs must maintain these records for audit and monitoring purposes but are not required to report these data.

Intervention by an SLP can take many different forms. Table 10 provides an overview of the continuum of tiered services and the role of the SLP. The IDEA and its regulations (34 CFR §300.226(b)) identify the activities that may be included as CEIS which may include professional development for teachers and other school staff to enable such personnel to deliver scientifically based academic and behavioral interventions, including scientifically based literacy instruction.

Support may be indirect, direct or a combination of both. Indirect support, however, has been found to increase classroom teacher capacity while also providing direct support to students (RtI Action Network, 2011).

Indirect support may include activities such as

- Supporting classroom teachers to identify specific, targeted interventions.
- Collaborating with classroom teachers to provide strategies to support literacy-based skills.
- Consulting with classroom teachers, and providing support to students, parents, and families as part of the diagnostic/instructional and intervention process.
- Providing o-teaching or modeling of a whole class intervention.
- Offering professional development to staff about various speech-language areas with a specific focus on the relevant language underpinnings of learning and literacy.
- Periodic monitoring of student progress with indirect interventions.
- Sharing evidence-based strategies and information.
- Participating in the problem-solving process with the MTSS team.
- Assisting in the selection of universal screening measures and the selection of evidence-based literacy intervention.
- Supporting the school's progress and efforts to meet the intervention needs of its students.

Table 10. Tiers of Intervention and the SLPs Role

Tier	Type of instruction	Role of the SLP
Tier I: Primary Level – Instruction/Core Curriculum	Evidence-based classroom instruction	• Conduct speech/language observation. • Consult with teachers/parents regarding observation results. • Provide training to staff about the continuum of oral language development and the impact on academic success. • Model whole lessons or demonstrations. • Develop practice programs to be implemented in-class and at home. • Monitor student progress periodically.
Tier II: Secondary Level - Intervention	Targeted intervention in general education	• Provide direct intervention for students who exhibit maturational speech sound errors and/or mild language delays in general education setting for defined periods of time (typically 6-8 weeks) when a disability is not suspected using the two-prong test. • Direct intervention decisions should be matched to the student's specific needs, made on an individual basis, and based upon the student's unique needs with consideration for the variety of supports available. • Collaborate with parents, teachers and other professionals to review intervention data, monitor speech-language skills, and determine next steps.
Tier III: Tertiary Level - Intensive Intervention	Intensive intervention which may include referral and identification	• Review progress monitoring data with the team to determine the need for more intensive intervention or a change in the intervention programming. • Use response to intervention data and other supporting information to discuss suspicion of a disability with the team due to a lack of responsiveness to intervention(s).

The South Carolina Multi-Tiered System of Supports Framework and Guidance Document (2019) specifically identifies these indirect supports as leadership roles and responsibilities that SLPs may have in the intervention process:

- Support and work with classroom teachers to identify interventions
- Collaborate with classroom teachers to provide strategies to support literacy-based skills
- Consult with classroom teachers, and provide support to students, parents, and families as part of the diagnostic/instructional and intervention process

Interventions may be provided for any area of speech and language. However, when considering intervention in the areas of phonemic awareness, phonics, fluency, vocabulary and comprehension, this must take place after the provision of evidence-based instruction in the classroom setting as outlined by federal and state laws (see below.). This is because section 613(f)(5) of the IDEA states that CEIS funds may be used to carry out services aligned with

activities funded by and carried out under the ESSA if the IDEA funds are used to supplement, and not supplant, funds made available under the ESSA for those activities.

Legislation Specific to the Provision of Evidence-Based Tier One Instruction

- Every Student Succeeds Act (ESSA): "Comprehensive literacy instruction as "instruction that includes developmentally appropriate, contextually explicit, and systematic instruction, and frequent practice, in reading and writing across content areas; as well as the inclusion of age-appropriate, explicit, systematic, and intentional instruction in phonological awareness, phonic decoding, vocabulary, language structure, reading fluency, and reading comprehension."
- South Carolina Read to Succeed Act: "Classroom teachers must use evidence-based reading instruction in prekindergarten through grade twelve, to include oral language, phonological awareness, phonics, fluency, vocabulary and comprehension."
- South Carolina's Multi-Tiered System of Supports legislation: "Evidence-based reading instruction' means reading, writing, and spelling instruction that employs direct instruction of systematic and cumulative content, with the sequence beginning with the easiest and most basic elements and progressing methodically to more difficult material. Each step also must be based on steps already learned. Components of evidence-based reading instruction include instruction targeting phonemic awareness, phonics, fluency, vocabulary, and comprehension."

Moreover, "The role of the SLP is not as the primary instructor, but a resource for schools and an interventionist when appropriate (ASHA, 2010)". Therefore, intervention by the SLP should not be used to supplant explicit and systematic tier one instruction in the essential components of reading instruction which includes phonemic awareness, phonics, vocabulary development, reading fluency (including oral reading skills), and reading comprehension strategies. In addition, because there are several types of general education instructional personnel in schools, there are several types of personnel who can provide this type of intervention as all instructional personnel should have training and competence to provide instruction in these areas. Therefore, as special education personnel, SLPs may provide valuable assistance to general education personnel through professional development designed to increase knowledge of the language foundation for foundational academic skills such as reading.

The excerpt below is from a journal article by Ehren, Montgomery, Rudebusch, & Whitmire entitled *Responsiveness to Intervention: New Roles for Speech-Language Pathologists (2006)* which illustrates the importance of the SLPs role in general education intervention.

> *As a school wide prevention approach, RtI includes changing instruction for struggling students to help them improve performance and achieve academic progress. To meet the needs of all students, the educational system must use its collective resources to intervene early and provide appropriate interventions and supports to prevent learning and behavioral problems from becoming larger issues.*
>
> *The foundation for SLPs' involvement in RtI has been established through the profession's policies on literacy, workload, and expanded roles and responsibilities. The opportunities for SLPs working within an RtI framework are extensive. To some, these*

opportunities may seem overwhelming—where in the workday would there be time to add all of these activities to our current responsibilities? Certainly, if the traditional roles of the SLP continue, it would be difficult to expand into these new roles. The point of RtI, however, is not to add more tasks but to reallocate time to better address prevention and early intervention, and in the long run serve more students up front rather than at the point of special education evaluation and service. Where RtI has been faithfully implemented, this seems to be the outcome. Some districts report reductions in special education referral and placement; even where placement rates have remained stable, staff nevertheless report a change in the way they spend their time. The reallocation of effort will hopefully lead to more effective interventions, both for students who remain in general education and those who ultimately qualify for more intensive services.

C. SLPs in Special Education

The special education process is governed by federal and state regulations and local policies. There are documentation requirements for each step of the process. SLPs are encouraged to attend local training on special education matters and become familiar with steps in the process and requirements.

D. Child Find

Child Find is a process required by the Individuals with Disabilities Education Act (IDEA) to identify, locate, and evaluate all children from birth through 21 years of age who may have disabilities and may require early intervention or special education services, regardless of the severity of the disability.

This requirement applies to, but is not limited to:

- Children who are homeschooled.
- Highly mobile children such as migrant and homeless as defined by the McKinney-Vento Homeless Assistance Act (42 U.S.C. § 11434a (6)).
- Children who are the age of compulsory school attendance who have not graduated from high school with a regular diploma and have not completed the school year in which they reach their twenty-first birthday.
- Students in residential treatment facilities (RTFs).
- Children who are wards of the state.
- Children who attend public, private, and parochial schools.
- Children who are enrolled in public educational programs, such as Head Start.
- Children attending charter schools.
- Children in state and local detention centers or correctional facilities.

Part B child find requirements begin at birth; therefore, they overlap with the Part C child find requirements. Child find in South Carolina involves referral to Part C for children birth to three, a screening process for children aged three through five, and a general education intervention process for children from kindergarten to age twenty-one. Children in need of special education services should be identified as young as possible, and also as soon as possible after the concern is noted. This includes children who are suspected of having a disability even though they are advancing from grade to grade (34 CFR § 300.111(a) (c)). The earliest possible identification of

educational or behavioral concerns will diminish the impact of the concerns on the child's education.

The LEA must operate a comprehensive system of child find in order to identify, locate, and evaluate children with disabilities who reside within the LEA. Child find activities usually involve a process of collecting data to determine whether the child should be referred for a full evaluation to determine eligibility for special education and related services. Child find activities are free of charge to parents. If there is reason to suspect a disability, then a full and individual evaluation is necessary which is also free to the parents.

E. Speech-Language Evaluation and Eligibility for Special Education and Related Services
Whenever an evaluation ore revaluation team is requesting information in the area of speech and/or language, one member of the team must be an SLP who must be present for the meeting where the concerns are discussed. Prior to the initiation of any evaluation, the first action the LEA must take is to provide the parents, or the adult student with a copy of the Procedural Safeguards Notice (34 CFR § 300.504). After a review of existing information if additional information is needed, the team will identify the needed information and obtain parental consent to conduct the evaluation.

In order for a child to be determined to be a child with a disability in the area of Speech-Language Impairment, the eligibility team must ensure that the student meets the Two-Pronged Test (34 CFR § 300.8). The two-pronged test for eligibility in Speech-Language Impairment is the same as it is for all disability categories under the IDEA.

- Prong 1: the child is a child with a disability as defined in federal and state laws and regulations and
- Prong 2: the disability adversely affects educational performance and thus requires specially designed instruction.

This two-pronged test has driven eligibility decisions for many years. However, more than ever in the law, it is clear that evaluations must also determine the present levels of academic achievement and functional performance (related developmental needs) of the student (34 CFR § 300.305(a) (2)(i)(iii)). This shifts the focus of the initial evaluation from the determination of eligibility for services to also include the determination of what the student needs to enable them to learn effectively and to participate and progress in the general education curriculum. In order to provide documentation for prong two, the teacher should be considered an active participant in the evaluation process and must provide relevant data documenting impact of the disability on the student's ability to access the general education curriculum (see Appendix G).

A Speech or Language Impairment includes demonstration of impairments in one (1) or more of the following areas: speech sound, language, fluency, or voice.

F. Speech Sound Disorder
(See also Chapter Eight: Speech Sound Disorders)

Description of Speech Sound Disorder
Speech sound disorders may be described as typical production of phonemes characterized by substitutions, omissions, additions, or distortions that impairs intelligibility in conversational speech and adversely affects academic achievement and/or functional performance in the educational setting. Intelligibility levels and/or speech patterns that are below the performance of typically developing peers and interfere with successful verbal communication. The atypical production of speech sounds may also result from phonology, motor, or other issues and/or disorders.

The terms phonological or articulation impairment/speech sound disorder does not include:

a. Inconsistent or situational errors that do not have an impact on the child's ability to functionally communicate,
b. Communication problems or speech sounds primarily from regional, dialectic, and/or cultural differences, and
c. Speech sound errors at or above age level according to established research-based developmental norms, without documented evidence of adverse effect on educational or functional performance.

NOTE: The presence of an articulation/phonological impairment does not guarantee the student's eligibility for special education. South Carolina criteria, including educational impact caused by the impairment, need for specially designed instruction, and sociocultural considerations must be met in order for a student to be eligible under IDEA for special education and related services.

Speech Sound Criteria (See Appendix L)
A student is eligible for special education services if there is evidence based on evaluation resulting in both of the following:

1. There is documentation of delayed speech or speech sound production (at least two out of three must be met).
    a. Three or more consonant speech sound errors when 90 percent of typically developing peers produce sound correctly according to current norms* (see consideration below); *and/or* presence of one or more disordered (developmental and non-developmental) phonological processes occurring at least 40 percent of the time.
    b. Stimulability less than 59 percent.
    c. Percent of consonants correct less than 84 percent.

2. The speech sound impairment must have an adverse effect impacting the student's ability to perform and/or function in the student's typical learning environment, thereby demonstrating the need for specially designed instruction and, if necessary, related services. For a child who is not yet in kindergarten, the adverse effects of the disability on

the child's ability to participate in age-appropriate activities require specially designed instruction, and if necessary, related services.

*Consideration should be given to deviations of the oral mechanism/structure when determining the presence of a speech sound disorder and whether dental occlusion, specific tooth deviations, the structure of hard and soft palate (clefts, fistulas, bifid uvula), and function (strength and range of motion) of the lips, jaw, tongue, and/or velum may be amenable to specially designed instruction by the SLP. For example, "there is sufficient evidence that dental and occlusal anomalies have an impact on articulation…these speech errors are considered to be obligatory oral distortions in that they are made in response to an oral structural defect and are not typically amenable to speech therapy, but rather require orthodontic and/or surgical correction (Mason, 2020)."

Speech Sound Evaluation

Speech Sound Impairment must be evidenced in the following required evaluation components:

- Information gathered from the student's parent(s) or legal guardian(s) and others as appropriate, such as teacher(s), service providers and caregivers regarding the concerns and description of speech characteristics. This evaluation may be completed through various methods including interviews, checklists, or questionnaires.

- One documented and dated observation of the student's speech characteristics during connected speech or conversation by a primary evaluator. Observation(s) conducted prior to obtaining consent for evaluation may be used to meet this criterion.

- An examination of the oral mechanism structure and function must be conducted.

- At least one standardized, norm-referenced instrument designed to measure speech sound production may be administered, but standard scores are not required. A phonemic inventory may be more appropriate for children with limited verbal output. Using a standardized, norm-referenced instrument will help to identify specific aspects of a speech sound disorders including speech sound segmental production for which sounds do not meet norms for acquisition, phonological processes that occur in forty percent or more opportunities, stimulability, as well as percentage of consonants correct (PCC) which assists with determining severity.

- Intelligibility rating may be used to support adverse educational impact.

- Additional norm-referenced or non-standardized phonological awareness assessments may also be conducted to support adverse educational impact.

- Assessment of speech sound production must be accompanied by supplemental measures (such as a dynamic assessment) for students who are from culturally or linguistically diverse backgrounds to discover whether the student is demonstrating a dialectal variation or having difficulty with specific features of speech sound development.

G. Language Disorder

Description of Language Disorder

A language disorder may be described as a significant impairment in the acquisition and use of language across modalities and across the five language domains of phonology, morphology, syntax, semantics, pragmatics which adversely affects the child's educational or functional performance and ability to participate in the primary learning environment.

The term language impairment does not include:

a. Anxiety disorders (e.g., selective mutism),
b. Children who have regional, dialectic, and/or cultural differences as no dialectal variety of English is to be considered a disorder,
c. Students who are learning English as a second language who do not exhibit difficulties in both languages,
d. Children who have auditory processing disorders not accompanied by language impairment, and
e. Children who have an isolated weakness in only one area of language such as pragmatic language or phonemic awareness.

Language Criteria (See Appendix M)

A student is eligible for special education services if there is evidence based on evaluation resulting in both of the following:

1. There is documentation of impaired language development (at least three must be met).
    a. Composite standard score of two deviations or more below the mean on a global assessment of language with consideration for the cut score for that specific assessment, sensitivity and specificity at that cut score, and confidence intervals.
    b. Two or more phonological awareness skills that do not meet age/grade appropriate norms.
    c. Narrative abilities that are greater than one year or more below chronological age.
    d. Language sample(s) with three or more skills in the areas of morphology, syntax, relational semantics, and/or pragmatics that do not meet age-appropriate norms.
    e. Dynamic assessment results that reveal a student is unable to complete any or only up to three steps of dynamic assessment for targeted skill(s), there is no or limited improvement noted, and/or requires moderate to substantial support.

2. There is an adverse effect of the disability on the child's educational performance requiring specially designed instruction and, if necessary, related services. For a child who is not yet in kindergarten, the adverse effects of the disability on the child's ability to participate in age-appropriate activities require specially designed instruction, and if necessary, related services.

Language Evaluation

Language Impairment must be evidenced in the following required evaluation components:

- Information gathered from the student's parent(s) or legal guardian(s) and others as appropriate, such as teacher(s), service providers and caregivers regarding the concerns and description of language skills. This may be completed through a variety of methods including interviews, checklists, or questionnaires.

- One documented and dated observation of the child's language skills must be conducted by a primary evaluator in one or more setting(s), which must include the child's typical learning environment or an environment or situation appropriate for a child of that chronological age. Observation(s) conducted prior to obtaining consent for evaluation may be used to meet this criterion.

- For preschool through high school students, a comprehensive assessment should include evaluation of discourse skills through language/narrative sampling.

- At least one assessment instrument may be a standardized, norm-referenced, and comprehensive measure of language when appropriate based on the needs of the student (i.e., current assessment with appropriate sensitivity and specificity, containing a normative sample representative of the student). The instrument must be administered and interpreted by an SLP to determine the nature and severity of the language deficits with consideration for the cut score for that specific assessment, sensitivity and specificity at that cut score, and confidence intervals.

- Non-standardized scientific, research-based instrument, such as a functional communication profile, dynamic assessment, language sample, or other methods may also be utilized. The evaluation report must document the evaluation procedures used, including the rationale for use choice of instruments used, the results obtained, and the basis for recommendations.

- Assessments of language for a student who is from a culturally or linguistically diverse background must be administered in the student's native language or other mode of communication and in the form most likely to reveal accurate information unless it is clearly not feasible to do so. Norm-referenced assessments that are not normed for students from culturally or linguistically diverse backgrounds are to only be used as informal probes with no accompanying scores. Norm-referenced language assessments should be accompanied by supplemental measures for students who are from culturally or linguistically diverse backgrounds. When dialect is a consideration, norm-referenced assessments sensitive to dialect should be used.

- Norm-referenced or non-standardized assessments of phonological awareness, narrative skills, and expressive language samples with findings in the moderate range and beyond may be used to support adverse educational impact in addition to data collected from academic activities, tests, and related classroom data.

H. Fluency Disorder

Description of Fluency Disorder

A fluency disorder may be described as an interruption in the flow of speech characterized by an atypical rate, or rhythm in sounds, syllables, words, and phrases that significantly reduces the child's ability to participate within the learning environment with or without his or her awareness of the disfluencies or stuttering. Excessive tension, avoidance behaviors, struggling behaviors and secondary characteristics (ritualistic behaviors or movements) may accompany fluency impairments.

Stuttering vs. Cluttering

Although cluttering and stuttering can co-occur, there are some important distinctions between the two. Children who stutter are more likely to be self-aware about their disfluencies and communication, and they may exhibit more physical tension, secondary behaviors, and negative reactions to communication. Children who clutter may exhibit more errors related to reduced speech intelligibility secondary to rapid rate of speech. This student does not sound fluent in the sense that they appear to not know what to say or how to say it. Along with fast rate, a high level of "typical disfluencies," such as interjections and revisions are often observed. A student who is demonstrating cluttering often appears to communicate in a disorganized manner with poor conversation skills and little awareness of their fluency and rate problems.

Fluency Criteria (See Appendix N)

A student is eligible for special education services if there is evidence based on evaluation resulting of both of the following:

1. There is documentation of dysfluent speech (at least two must be met) *
    a. Frequency of disfluency that is six to ten percent vocal dysfluencies per speaking minute, ten to fifteen percent of syllables stuttered or six to ten dysfluencies per minute.
    b. The disfluency is described as including repetitions, prolongations, blocks, hesitations, interjections, vocal tension, pauses of two seconds or greater, or five iterations in a repetition.
    c. Presence of associated secondary or non-vocal behaviors that include at least one associated behavior that is noticeable and distracting.
    d. Avoidance of some speaking situations.

*Consideration should be given for the period of normal disfluencies. As language skills are developing, many children between the ages of eighteen months to five years go through periods of disfluent-type behaviors typically characterized by interjections and easy whole word and phrase repetitions. Most are unaware and do not express concerns. However, if these children continue to exhibit these characteristics for more than six months and the characteristics are not decreasing, intervention may be considered.

2. There is evidence of an adverse effect of the disability on the child's educational performance requiring specially designed instruction and, if necessary, related services. For a child who is not yet in kindergarten, the adverse effects of the disability on the child's ability to participate in

age-appropriate activities require specially designed instruction, and if necessary, related services (at least two must be met).

a. Evidence of educational struggles in most or all areas when compared to peers.
b. Two observations revealing ability to verbally communicate is dissimilar to peers across half or more contexts, settings, environments, and/or circumstances.
c. Score of 45-100 on the Overall Assessment of the Speaker's Experience of Stuttering (OASES).

Fluency Evaluation

Fluency impairment must be evidenced in the following required evaluation components:

- Information gathered from the student's parent(s) or legal guardian(s) and others as appropriate, such as teacher(s), service providers and caregivers regarding the concerns and description of speaking behaviors. This may be completed through various methods including interviews, checklists, or questionnaires.

- At least two documented and dated observations by the evaluating SLP across various settings to document the frequency, type, and duration of dysfluencies, and any secondary characteristics. Observation(s) conducted prior to obtaining consent for evaluation may be used to meet this criterion.

- One standardized, norm-referenced instrument designed to measure behaviors characteristic of a fluency disorder may be administered. Assessments may also include connected speech samples, or non-standardized assessments documenting the fluency issues.

- If the student is from a culturally or linguistically diverse backgrounds, dysfluencies must be observed consistently across both languages.

- Observations of the student speaking across a variety of contexts during school which reveal difficulties to effectively communicate in comparison to peers may be used to support adverse educational impact.

- The Overall Assessment of the Speaker's Experience of Stuttering (OASES) may be used to support adverse educational impact as well as presence of a disability.

I. Voice

Description of Voice Disorder

A voice disorder may be described as an interruption in one or more processes of pitch, quality, intensity, resonance, or a disruption in vocal cord function that significantly reduces the child's ability to communicate effectively. The term voice impairment does not refer to:

a. Differences that are the direct result of regional, dialectic, and/or cultural differences,
b. Differences related to medical issues not directly related to the vocal mechanism (e.g., allergies, asthma, laryngitis, laryngopharyngeal reflux),
c. Anxiety disorders (e.g., selective mutism), and
d. Differences due to temporary factors such as short-term vocal abuse or puberty.
e. Physician's orders for speech therapy may not be used as the sole criterion for determining eligibility. There must be evidence that the vocal impairment adversely affects the student's educational performance.

Voice Criteria (See Appendix O)

A student is eligible for special education services if there is evidence based on evaluation resulting in all the following:

1. The interruption in one or more processes of pitch, quality, intensity, resonance, or a disruption in vocal cord function that significantly reduces the student's ability to communicate effectively within the learning environment in addition to scores of 59 to 81 on the Pediatric Voice Index (Parent/Caregiver and/or Teacher version).

*A medical referral and clearance may not be used as the sole criterion for determining eligibility. There must be evidence that the vocal impairment adversely affects the child's educational performance and therefore requires specially designed instruction, and if necessary, related services. The IEP team should consider how the student performs in the learning environment to determine their educational need for specially designed instruction.

2. There is an adverse effect of the disability on the child's educational performance requiring specially designed instruction and, if necessary, related services. For a child who is not yet in kindergarten, the adverse effects of the disability on the child's ability to participate in age-appropriate activities require specially designed instruction, and if necessary, related services.

3. The student has received medical clearance from a doctor prior to determination of the need for specially designed instruction to ensure the source of the voice impairment is not an organic problem for which therapy is contraindicated (e.g., paralyzed vocal cords).

Voice Evaluation

Voice impairment must be evidenced in the following required evaluation components:

- Information gathered from the student's parent(s) or legal guardian(s) and others as appropriate, such as teacher(s), service providers and caregivers regarding the concerns and description of vocal skills/behaviors including onset of the difficulties and factors

surrounding the change in vocal status. This may be completed through various methods including interviews, checklists, or questionnaires.

- Two documented and dated observations of high and low vocal demand to assess vocal characteristics of intensity, pitch, quality, or resonance must be conducted by a primary evaluator in one or more setting(s), which must include the child's typical learning environment or an environment or situation appropriate for a child of that chronological age. Observation(s) conducted prior to obtaining consent for evaluation may be used to meet this criterion.

- One criterion-referenced instrument designed to assess vocal production, or an assessment used to document the severity of the child's vocal impairment.

- Clearance from a medical doctor as well as a description of the student's vocal quality, intensity, resonance, and pitch are required.

- Observations of the student speaking across a variety of contexts during school which reveal difficulties to effectively communicate in comparison to peers may be used to support adverse educational impact.

- Scores on the Pediatric Voice Index for Teachers may be used to support adverse educational impact as well as presence of a disability.

J. Adding Additional Areas of Speech-Language Impairment for a Student Previously Identified
It is not necessary to open a re-evaluation to reestablish eligibility if another area of speech-language is suspected as an area of need (i.e., student initially classified as speech-language impaired in the area of language, but now fluency is a concern). The SLP should, however, conduct appropriate assessments to collect data that supports the additional area(s) of need and goals. This information should be documented within in the IEP and prior written notice (PWN). In addition, the SLP must adhere to Medicaid requirements related to documentation that supports the addition of a new diagnosis and changes to the treatment plan.

K. Determining Whether the Student Needs Special Education and Related Services (Prong Two)
The second prong of eligibility is to determine whether or not the student needs special education and related services. It is helpful for teams to remember that by definition special education means specially-designed instruction (34 CFR § 300.39(a)(1)) which means adapting the content, methodology, or delivery of instruction to address the unique needs of a student that result from the student's disability to ensure access of the student to the general education curriculum in order to meet the educational standards that apply to all students (34 CFR § 300.39(b)(3)(i) (ii)). Therefore, in order to meet prong two for speech-language impairment, the student must have specific needs which are so unique that they require specially designed instruction in order to access the general education curriculum.

The eligibility team must review the evaluation data provided in the comprehensive evaluation in such a way as to understand the extent of the student's needs with regard to specially designed

instruction. Teams must be able to use the data to describe the intensity of the support needed to assist the student in accessing and progressing in the general education curriculum. It is only through this discussion that the eligibility team can determine whether or not the student's need for having adapted content, methodology, or delivery of instruction is so great that it cannot be provided without the support of special education.

If the team determines that the student's need for having adapted content, methodology, or delivery of instruction is so great that it cannot be provided in general education without the support of special education, the team may determine that the student needs special education and related services. If the data suggests the student's needs for instruction can be provided within the general education setting without the support of special education and related services, the team must determine that the student is not in need of special education and related services.

Eligibility for services is based on the presence of a disability that results in the student's need for special education and related services, not on the possible benefit from speech-language services. The SLP and team members must be able to document that the student meets criteria for the disability category of Speech-Language Impairment including the adverse educational impact of a student's speech and language skills on performance and that as a result of that disability, the student needs specially designed instruction. It is possible for a student to demonstrate communication differences, delays, or even impairments, without demonstrating an adverse effect on educational performance. When a student does not meet the criteria for eligibility as a student with a speech language impairment, the IEP team may determine that a child may be eligible for additional services ("related services") if the student has met criteria for another category of disability under the IDEA.

L. Rule Outs

As outlined for each area of Speech-Language Impairment, there are critical rule out questions that must be considered. For speech sound disorders, this includes inconsistent or situational errors that do not have an impact on the child's ability to functionally communicate, communication problems or speech sounds primarily from regional, dialectic, and/or cultural differences, and speech sound errors at or above age level according to established research-based developmental norms, without documented evidence of adverse effect on educational or functional performance. In the area of language, this includes anxiety disorders (e.g., selective mutism), children who have regional, dialectic, and/or cultural differences as no dialectal variety of English is to be considered a disorder, students who are learning English as a second language who do not exhibit difficulties in both languages, children who have auditory processing disorders not accompanied by language impairment, and children who have an isolated weakness in only one area of language such as pragmatic language or phonemic awareness. In the area of voice, this includes differences that are the direct result of regional, dialectic, and/or cultural differences, differences related to medical issues not directly related to the vocal mechanism (e.g., allergies, asthma, laryngitis, laryngopharyngeal reflux), anxiety disorders (e.g., selective mutism), and differences due to temporary factors such as short-term vocal abuse or puberty.

Additionally, prior to determining that a student is eligible under the IDEA, the IEP team must also determine whether there is evidence of a lack of instruction in reading or math. In order to answer this question, the team should be able to outline the type of instruction and curriculum

used for instruction in phonemic awareness, phonics, fluency, vocabulary and comprehension as well as whether the skills have been taught explicitly and directly utilizing a systematic sequence that builds from simple concepts to more complex. The team should also be able to support with data whether there may be a reason to suspect the student didn't have an opportunity to be provided instruction in these five areas in this specific manner (i.e., absence, illness, etc.). In addition, the team should be able to state that the curriculum used for tier one, two and three instruction is based on current evidence with valid reliable studies which demonstrate the program's effectiveness. This type of data can be found on websites such as edreports.org. As Catts and Hogan point out, this type of data is critical because "If a school's reading instruction is not high quality and evidence-based, many children may score poorly on early reading assessments even though they do not have dyslexia (or a reading disability). These children will appear to have a reading disability, but in fact have not received the appropriate reading instruction to learn to read words, even though they have the cognitive/perceptual and language abilities to do so (2021)".

M. Speech as a Related Service

A student must be found eligible for special education to receive related services. Speech-language pathology services are considered both special education and a related service in South Carolina. When determining the need for a speech as related service, it is important to remember that the federal definition of related service means a service required to assist a student with a disability to benefit from special education (34 CFR 300.24). Teams should also consider whether the specially designed instruction can be provided only by an SLP or if there are other personnel who can also support the identified areas of need(s) within the LRE.

When the IEP team has data that may indicate the student no longer requires speech-language services to benefit from special or general education programs and/or no longer requires the specially designed instruction provided by an SLP, the IEP team must reconvene to discuss the possible change in eligibility. If speech-language services are provided as a related service and speech-language impairment is not an identified disability area, the IEP team can determine if continued services are required.

N. Students Not Eligible for Speech-Language Special Education and Related Service

Students who do not meet the two-prong test under IDEA for speech-language impairment are not eligible for special education in the area of speech-language impairment. A student may not receive speech as a related service without being eligible under one or more categories in the IDEA. When a student is found ineligible for services, the eligibility committee should prepare useful information for the classroom teacher and the parent about steps they can take to facilitate the student's development that may be used in the school and home environment.

Chapter Five: SLPs and IEP Development

Introduction

When the eligibility committee determines that a student has a speech-language impairment that requires specialized instruction as a primary special disability, an individualized education program (IEP) must be developed within thirty calendar days of the date of the student's determination. The purpose of an IEP is to describe the special education and related services that are necessary to meet the unique needs of the student, as identified by the assessment. The IEP should address where the student is currently functioning, what the goals for the student are, and what services and supports will be provided to reach the goals. Parental Consent for the Provision of Special Education Services is required prior to the implementation of an initial IEP.

Each IEP must be reviewed and revised at least annually. Best practice is for the SLP to be a member of the team for any student with a speech-language impairment. During this review, the IEP team addresses the student's progress toward meeting the annual goals, the results of any evaluation or assessment data, information provided by the parents, the student's anticipated needs, and any other relevant matters. As part of the review of present levels, the educational impact and as a result, the ongoing need for specialized services will be reviewed. The IEP team must look at a variety of data sources, including data gathered by the SLP regarding student performance, assessments completed, and teacher, student, or parent checklists. Audio and video recordings may be valuable in demonstrating progress. If the student no longer demonstrates educational impact, the IEP team should consider a reevaluation to discuss continued eligibility.

A sample checklist including components of the IEP is provided in Table 11. This checklist may be useful at staff in-service meetings, when reviewing IEPs, and for identifying methods for improving the quality of the IEP.

Table 11. IEP Components

IEP Component	Description	Source of Information
Present Level of Academic Achievement and Functional Performance (PLAAFP)	How the student's disability affects their involvement and progress in the general curriculum and in the areas of need. Strengths and weaknesses of the student	Performance on assessments of academic and functional performance, parent input and student input for students age 14 years of age and older during the life of the IEP being developed (and younger if appropriate), should contain the preferences and needs of the individual as well as age-appropriate transition assessments
Goals and Short-Term Objectives or Benchmarks	A measurable description of the student can be expected to achieve within a year	Developed from the information in the PLAAFP (Present Level of Academic Achievement and Functional Performance)
Accommodations	Supports used in instruction and assessment that do not change the learning expectations	Present Level of Academic Achievement and Functional Performance
Assessment	A description of the student's participation in South Carolina's statewide assessment program	Based on IEP student performance and participation criteria for state assessments
Modifications	Supports that change learning expectations	Based on IEP, student's needs, and supports
Placement	Where the student will be educated (LRE)	Based on IEP, student's needs, and supports
Postsecondary Goals	Measurable postsecondary goals describing what the student is planning to do beyond school. Must address at least one goal in the areas involved in postsecondary employment: training, education, living and community participation.	Age-appropriate transition assessments
Transition Plan	Should be considered for all students who may be age 14 during the life of the IEP (including age 13 at the time of the IEP meeting) or younger if appropriate and include statements regarding transition service needs that focus on the student's high school course of study as well as employment, postsecondary training, education, or independent living goals.	Postsecondary Goals, plus age-appropriate transition assessments
Services	Written after the goals are established and may include related services, supplementary aids and services, program modifications, as well as accommodations and modifications in instruction and assessment.	Assessments regarding the needs of the student in relation to participation in the general education curriculum, extracurricular and nonacademic activities and to be educated and participate with students without disabilities

A. Present Levels of Academic Achievement and Functional Performance

The present levels of academic achievement and functional performance (PLAAFP) summarize the student's current performance and provide the foundation upon which all other decisions in the student's IEP will be made. The present levels identify and prioritize the specific needs of a student and establish a baseline from which to develop meaningful and measurable annual goals. For preschool students, the present level of educational and functional performance should include how the student's disability affects their participation in activities appropriate for preschoolers. The IEP team should consider the following questions when writing the present levels:

- In areas of concern, what is the student's present level of performance in relationship to LEA standards and benchmarks in the general education curriculum?
- In areas of concern, what is the student's present level of performance in relationship to level of performance that will be required to achieve the postsecondary goals?
- Are there functional areas of concern related to the disability not reflected in the general education curriculum (e.g., self-care skills, social skills, organizational, etc.)?
- What is the degree of match between the skills of the student and the instructional environment?
- What strengths of the student are relevant to address the identified concerns?

B. Annual Review Assessments

The purpose of assessment for annual review is to gather data denoting progress towards specific goals and to identify what goals need to be created for the next IEP in order to help the child remediate identified speech-language deficits. Norm-referenced, standardized tests are not designed for this purpose and should not be used to guide treatment plans. Norm-referenced tests identify whether or not a student exhibits deficits when compared to a normative sample of same age peers. While "Norm-referenced tests do not lend themselves to use in monitoring an individual's performance over time. Their use can engender inflated illusions of success or unwarranted delusions of failure and can invalidate their future use as tests of skill." (McCauley 1984, p 346). Consider also the reliability and validity of a norm-referenced, standardized test if is it given more frequently than six to twelve months from the previous administration. Enough time needs to have elapsed so that the student is in the next norm group and that they no longer remember the test questions.

C. Academic and Functional Strengths

(see also Chapter Three)

In terms of academic and functional strengths, **t**he IEP team must be aware of the strengths of the student and utilize those strengths during the development of the IEP to assist in addressing the student's needs where possible. The strengths should be included in the PLAAFP section of the student's IEP, as identified through assessments. In developing each student's IEP, the IEP team must consider the results of the initial or most recent evaluation of the student (34 CFR § 300.324(iii)). This must include a review of valid evaluation data and the observed strengths of the student resulting from the most recent assessment(s).

The most recent evaluations (e.g., state and local assessments), however, should not make up the entirety of the academic, developmental, and functional strengths of the student. The IEP team

must review existing data, including data such as current classroom-based assessments, review of previous progress reports on IEP goals, state and local assessments, grades, attendance, and discipline records. In order to develop a full view of a student's strengths, many pieces of information must be considered.

D. Academic and Functional Needs

As it relates to academic and functional needs, when developing each student's IEP, the IEP team is required to consider the academic, developmental, and functional needs of the student. A student's performance on state or district assessments should be considered when determining the student's academic needs. The consideration of state and district assessments is consistent with the emphasis on the importance of ensuring that students with disabilities participate in and progress toward the general curriculum standards. The IEP team must consider the results of the initial or most recent evaluation of the student (34 CFR § 300.324(iii)). This must include a review of valid evaluation data and the observed needs of the student resulting from the most recent assessment(s).

The most recent evaluations (e.g., state and district assessments), however, should not make up the entirety of the academic, developmental, and functional needs of the student. The IEP team must review existing data, including data such as current classroom-based assessments, review of previous progress reports on IEP goals, state and district assessments, grades, attendance, and discipline records. In order to develop a full view of a student's needs, information from a variety of sources must be considered. Based on the student's needs, the IEP team must ensure that the special education services, related services, supplementary aids and services, accommodations, program modifications, and supports for LEA personnel described in the IEP address the student's needs in order to ensure they receive educational benefit.

For an annual review of the IEP, data should be gathered from a variety of sources including progress towards goals, progress towards the acquisition of developmentally appropriate skills along the continuum of development, information from classroom teachers and parents, and any additional data that may help outline the academic, developmental, and functional needs of the student. For students ages thirteen and older (or younger, if appropriate), the PLAAFP must also describe the student's transition needs in the areas of training/education, employment, and where appropriate, independent living skills.

It is also helpful to use the term "speech and language" instead of "communication" in the PLAAFP as well as goals. In doing so it makes it clear to all who may read the IEP that the needs being addressed, and the services being provided are specific to speech and language therapy. In addition, if the student has a medical diagnosis specific to the student's speech and language needs, including it within the PLAFFP helps to provide consistency across documentation when the student is Medicaid eligible.

E. Adverse Effect on Involvement and Progress in the General Curriculum

When considering the adverse effect of the disability on involvement and progress in the general curriculum, The IEP for each student with a disability must include a statement of the student's present levels of academic achievement and functional performance, including: how the student's disability affects the student's involvement and progress in the general education

curriculum (impact statement); or for preschool students, as appropriate, how the disability affects the student's participation in age appropriate activities (34 CFR § 300.320(a)(1)).

The term "appropriate activities" includes activities that students of that chronological age engage in as part of a preschool program or in informal activities. Examples of appropriate activities include social activities, pre-reading and pre-math activities, sharing-time, independent play, listening skills, and birth to six curricular measures. The federal regulation at 34 CFR § 300.323(b) indicates that preschool programs for students with disabilities should have an educational component that promotes school readiness and incorporates pre-literacy, language, and numeracy skills.

When describing the "impact of the disability upon ability to access and progress in the general curriculum", IEP teams should specifically note how the student's disability affects their involvement and progress in the general education curriculum. For, preschool students, describe how the student's disability affects his/her participation in age-appropriate activities. This statement should describe the second prong of eligibility. It explains how the student's disability impacts them to a degree that it warrants the most intensive intervention (i.e., special education), as opposed to interventions that are offered or could be provided in general education.

F. Parent/Student Input on the PLAAFP

Parents must be afforded the opportunity to participate in the IEP process (34 CFR § 300.322 (a)). Parents and students should have the opportunity to provide input regarding the student's strengths and needs as well as goals and accommodations. A school district is to include the parents in an IEP meeting "unless they *affirmatively refused to attend."*

G. Findings: Academic Achievement and Functional Performance

The findings provide the baseline data for the academic and/or functional skill deficits the IEP team determines appropriate for annual goals. The IEP team must determine the most appropriate assessment to be utilized in establishing the findings based on academic and functional skills. Assessment information for a student with a disability must identify each of the student's specific needs. The assessment findings must provide sufficient information (e.g., data) that will inform the development of measurable annual goals. These goals must enable the student to be involved in and make progress in the general education curriculum.

Baseline data provide the starting point for each measurable annual goal, so there must be one baseline data point for every measurable annual goal on the student's IEP. Examples of baseline data include percent of correct responses, words read correctly, number of times behavior occurs, and mean length of utterances. Any goal written must have the same measurement method used in collecting its baseline data. When selecting the assessment measure for annual goals and baseline data, remember the data must be:

- Specific to the skill/behavior that is being measured; the skill/behavior is described in relationship to expectations within the general education setting (norms/standards/expectations included);
- Objective so that others will be able to measure it and get the same results.
- Measurable so that it is something that can be observed, counted, or measured; and

- Collected frequently using the same measurement devices utilized to establish baseline data so that the progress monitoring of the skill is frequent enough to inform instruction.

H. Annual Measurable Goals

Measurable annual goals are descriptions of what a student can reasonably be expected to accomplish with the twelve-month period with the provision of special education and related services. When selecting areas of need to address through the annual goals, the IEP team's focus should be on selecting goals from the most highly prioritized needs from the PLAAFP.
The IEP team must consider identifying goals that will allow the student to be involved in and make progress in the general curriculum. The IEP team must also consider identifying goals that meet the student's other educational needs that result from the student's disability (34 CFR § 300.320(a)(2)(i)(A-B). IEP goals must be aligned with grade-level content standards for all students with disabilities (see OSEP's "Dear Colleague" letter November, 2015). This does not mean that goals must include a grade level standard but should assist a student in reaching grade level standards by utilizing grade level related content. Keep in mind that the annual goal is the instructional framework for which a student needs specially designed instruction. The annual goals must be written to be skill-based so as to address the required skills that the student needs in order to master the content of the curriculum rather than written as a goal that focuses on mastery of curriculum content (e.g., standards). The skill deficits identified in the PLAAFP must be the skill deficits identified in the annual goal and these skills should align with grade-level content standards.

Annual goals are not required for areas of the general education curriculum in which the student's disability does not affect involvement and progress. The annual goals included in each student's IEP should be selected to meet the unique needs of the individual student. The goals should not be determined based on the category of the student's disability or on commonly exhibited traits of students in a category of disability. For those students with disabilities who take alternate assessments aligned with alternate achievement standards, a description of benchmarks or short-term objectives must be included for each annual goal (e.g., academic, and functional goals) and must include a minimum of two.

There is a direct relationship between the measurable annual goal, baseline data, and the needs identified in the PLAFFP. Because the present level findings establish baseline data for the development of measurable annual goals, the same criteria used in establishing the findings must also be used in developing and progress monitoring the annual goal.

Five critical components of a well-written goal are:

- *Timeframe* is usually specified in the number of weeks or a certain date for completion. A year is the maximum allowed length for the timeframe.
    - By the end of the IEP …
    - In 36 instructional weeks …
    - By the end of the 2021-2022 school year …

- The *conditions* specify the manner in which progress toward the goal is measured. Conditions are dependent on the behavior being measured and involve the application of skills or knowledge.
    - When given structured tasks with various prompts …
    - When given a list of tier three third grade-level vocabulary words…
    - When given a pragmatic scenario or situation targeting …

- The *behavior* clearly identifies the performance or skill that is being monitored, usually reflects an action, or can be directly observed, and is measurable.
    - Student will correctly produce the phoneme(s)…
    - Student will generate the targeted phonological awareness response…
    - Student will summarize or state in their own words…

  Note: Specific details regarding exactly what the student will master within 364 days is the expectation. IEPs goals must be ambitious, but achievable.

- The *level of proficiency* identifies how much, how often, or to what standards the behavior must occur in order to demonstrate that the goal has been reached. The goal criterion specifies the amount of growth the student is expected to make by the end of the annual goal period. The goal must allow a clear yes or no determination of whether or not it has been achieved.
    - From ____ to ____ accuracy
    - From ____ out of 10 words to ____ out of 10 words
    - From ____ to ___ stuttered words per minute

- The *measurement or measurement device* is the "as measured by" piece. It describes how progress will be measured. The description will include what tool or methodology will be used. The measurement device used in the goal must be the same measurement device used to establish baseline data in the findings.
    - As measured by criterion reference testing
    - As measured by curriculum-based assessment
    - As measured by portfolio assessment

Well-written measurable annual goals should be clear enough that a teacher who does not know the student could use them to develop appropriate instructional plans and assess the student's progress. These goals should be written in a way that the target behavior or skill is something the student will do rather than not do (e.g., avoid verbs such as "won't do" and "refrain from").

The number of goals addressed in the IEP depends on the student's needs. Prerequisite skills, immediate needs, and general applicability are all factors to consider when establishing priorities. Parents, general education teachers, and students are also essential sources of information when setting priorities.

I. Progress Reporting

Progress report frequency must be established by the IEP team based on the individual needs of the student. The IEP team must determine when periodic reports on the progress the student is making toward meeting the annual goals will be provided to the parent (34 CFR § 300.321). This

may be aligned with the quarterly reports aligned with the academic calendar or more frequently as agreed upon by the IEP based on the needs of the student. Progress must be reported for each annual goal indicated in the student's IEP. "Norm-referenced tests do not lend themselves to use in monitoring an individual's performance over time. Their use can engender inflated illusions of success or unwarranted delusions of failure and can invalidate their future use as tests of skill." (McCauley, 1984) The use of norm-referenced tests to report progress is inappropriate for this purpose.

If services have been provided to address a particular IEP goal during the reporting period, but the student has not made progress, the IEP committee must consider if changes are necessary. The IEP committee must determine if other aspects of the special education and related services need to be changed to facilitate the student's mastery of the current goal for which there has been "no progress" or perhaps only minimal progress which suggests the student is not going to be able to meet the goal. Methods of measuring progress are noted in the student's IEP and all notations of performance data collected over the reporting period. IDEA requires that whenever there is a lack of progress, the IEP team must review the student's IEP to determine whether the annual goals are being achieved and revise the IEP as appropriate to address any lack of progress.

J. Accommodations and Modifications

The IEP team is responsible for including a statement of the program modifications and/or supports that school personnel must provide (34 CFR § 300.320(a)(4)). Accommodations are supports that provide equitable instructional and assessment access for students with disabilities. Accommodations are generally provided in the areas of presentation of instruction, the equipment and materials needed by the student, the way in which the student will respond, the setting in which instruction or learning will take place, and the time it will take. Accommodations must be explicit and IEP teams must delineate specific and definitive ways in which the accommodations will be provided within the school environment (e.g., special education classroom and the general education classroom). For example, if the IEP team determines that the student requires preferential seating, the team needs to determine where that would be in the student's classes (away from distractions or close to instruction) and to which classes this accommodation would apply.

If it is determined that modifications are needed within the student's program, the IEP team will need to determine what these are and provide specific and definitive explanations as to what and how something is being modified. Modifications are supports that change, reduce, or raise learning or assessment expectations. For example, if the student is receiving core content instruction in the special education classroom by a special education teacher from a curriculum that is different than what peers without disabilities are receiving, the team needs to delineate how the grade-level content standards are being modified. Another example may be that while the student is participating in a general education classroom, the grading expectations are different than the student's peers without disabilities. If this is the case, the IEP team will need to describe this in the IEP. Modifications may impact the student's ability to earn credits towards graduation for the courses in the upper grades.

K. Accommodations on a Speech Only IEP

Accommodations are an IEP team decision and must be supported with data. The accommodations listed in the IEP must match the data (i.e., if extra time is an accommodation, there should be a connection to the data stating why it is needed and/or continues to be needed). This information should be included in the PLAFFP and the impact statement.

Determining Appropriate Accommodations

Prior to adding accommodations that are not related to the identified speech-language impairment, the team must determine if there is reason to suspect another area of disability. The same applies to consideration of adding IEP goals to a speech only IEP for areas that are not related to the speech disability (i.e., reading, math, behavior). Once the team determines there is no reason to suspect another disability or a reevaluation is conducted and it is determined that the child is not eligible for another category of disability, the team would address those additional needs within the IEP. If this is part of a reevaluation meeting, the school psychologist would be in attendance. If this is not within a reevaluation meeting and/or the team has no reason to suspect another disability, persons with knowledge of appropriate accommodations *for the identified area of need* should be in attendance. For example, if there are medical accommodations needed, the school nurse should be in attendance and offer appropriate recommendations for accommodations. If there are sensory processing accommodations, the Occupational Therapists should be in attendance to make appropriate recommendations. In the case of physical limitations, a Physical Therapist should be in attendance to make appropriate recommendations. When there are mental health related concerns in need of accommodation, the guidance counselor or school psychologist would need to be in attendance in order to provide appropriate recommendations. On the occasion of attention related concerns and need for accommodations, the school psychologist should participate in the meeting to provide appropriate recommendations.

Accommodations for Multilingual Learners

In addition, students identified as multilingual learner with disabilities (MLWD) should have both an IEP and an Individualized Language Acquisition Plan (ILAP). Each program determines the allowable accommodations and services that best meet the needs of the student. *The IEP team addresses needs related to the student's disability, whereas the ILAP team addresses needs related to the student's language acquisition.* Although both accommodation and service plans are distinct and separate, both plans should be met and implemented with the same due diligence that is specific to the student's needs. A continuous plan for progress monitoring should be in place with respect to language and disability goals. The student should receive both special education and multilingual support services to meet the needs of the whole student.

L. Services

All special education services, related services, and supplementary aids and services must be based on peer-reviewed research, to the extent practicable. Peer reviewed research has been reviewed by qualified and independent reviewers to ensure that the quality of the information meets the standards of the field before the research is published. For more information on peer-reviewed research, visit the What Works Clearinghouse and the IDEAs That Work websites. It may be important to note that the comments to the Federal Regulations state that special education services that are based on "peer-reviewed research" must be provided to the extent that

it is possible, given the availability of the research. If no such research exists, the service may still be provided if the IEP team determines that such services are appropriate. Further, the OSEP states that failure to base services on peer-reviewed research is not necessarily a violation of a FAPE, because the IEP team determines what services the student will receive based on the student's individual needs. The IEP is not required to include specific instructional methodologies unless the IEP team determines that these are necessary for a student to receive a FAPE (Federal Register, August 14, 2006, pp. 46664 and 46665).

Each IEP team makes decisions about the special education instruction and related services, as well as supplementary aids and services to be provided to the student, or on behalf of the student, so that the student will advance appropriately toward meeting his or her annual goals, advance in the general curriculum, and be educated with their peers.

The IEP must also include any services needed to support LEA personnel. A few examples would include the general education teacher needing instruction to learn how to use an assistive technology device that the student will use in the classroom, the general education teacher needing to be trained in order to carry out a BIP in the classroom or needing training on how to work with a student with autism. If any of these services were determined appropriate by the IEP team, they would be included in the IEP for the student.

The decision about the type of services, the amount of services, and the setting of services necessary to meet the unique needs of a student with a disability is based on a variety of factors. The IEP team must identify the student's PLAAFP and determine the annual goals and, if appropriate, benchmarks/short-term objectives. Once the present levels of performance and goals are established, the IEP team decides the specific services and the amount of services that will be needed for the student to make the necessary progress to achieve the measurable annual goals. After the IEP team determines the type of services and the amount of services necessary, the team decides where those services will be provided and the amount of time the student will spend in general education settings, in special educational settings, or in a combination of settings. All special education and related services must be individually determined in light of each student's unique abilities and needs to meet the annual goals in the IEP and to make progress in the general education curriculum.

Each IEP must indicate the projected beginning date and the anticipated frequency, location, and duration for the special education and related services, supplementary aids and services, and modifications. It is possible that beginning and ending service dates may vary throughout the year and should be indicated as such on the IEP. For example, if a high school student is projected to participate in a math class that will be co-taught by a general education and special education teacher the second semester, then the IEP team would ensure the beginning date of the specialized instruction in the general education classroom would not begin until the first day of the second semester. However, the student's specialized instruction by the special educator should be provided all year. This can be furthered explained in the text box in the services section of the IEP.

For data collection purposes the frequency of the services and modifications can be reported as minutes/days/weeks. This would indicate how many minutes per day, how many days per week,

and how many weeks per school year the services must be provided. This information would be determined at the IEP team meeting when decisions are being made about what services will be provided. The IEP team must be as specific as possible.

Sometimes it is difficult to be precise in determining just how much service will be required throughout the year. However, the IEP must be as specific and definitive as possible so that the IEP team, to include the parent, understands and has a clear idea of what the student's program will look like on a day-to-day basis. The IEP should not indicate the services are "as needed." The IEP should not indicate the frequency of "times" for services other than transportation and nursing services. The IEP must delineate exactly how much time each service will be delivered. If there is a special circumstance for delivering a service, then the IEP team must make note of the circumstance on the IEP by describing the specific details in order to ensure the service delivery model is transparent to all members of the IEP, including the parent and the student.

Location

The location of services would be the school building or other facility and the setting where the services will be provided. This should be described in the IEP so that the parents and the IEP team members will know where the student is to receive services, including the extent of the student's participation with students who are nondisabled. The location must be specific, definitive, and appropriate to the specific service type.

The student's IEP should specify where services will be provided in the SLP's room; in the general, special, or career-technical education classroom; on the playground or in the cafeteria (or other school locations); in the community; or other specific location. The identification of location may be flexible, recognizing that there may be a valuable opportunity to practice a newly acquired skill in a classroom setting or that a student may need a few sessions of direct pull-out therapy to work on a specific strategy before returning to classroom-based intervention. When specifying location on the IEP, it may be appropriate to identify multiple locations for services, as follows:

Johanna will receive sixty minutes of services/week in the classroom, in the cafeteria or playground and/or the speech-language pathologist's room.

If LEAs require specific settings to be listed, it may be useful to specify that the student will receive services in a variety of settings including individually, in a group, or in a classroom. This provides flexibility for the SLP to work with the student one-on-one to establish skills, in small groups to practice them in a structured setting, and in the classroom to use them in a more natural environment without having to schedule an IEP meeting for each step of the process. Whatever the type of scheduling option used, it should be clearly documented in the student's IEP and include dates, frequency, and duration statements. If the student's speech or language needs change, the IEP team needs to reconvene to make appropriate adjustments.

Amount

The amount of services to be provided must be stated in the IEP so that the level of the school's commitment of resources will be clear to parents and other IEP team members. The amount of time to be committed to each of the various services to be provided must be appropriate to the specific service, and stated in the IEP in a manner that is clear to all who are involved in both the development and implementation of the IEP (Federal Register, August, 2006). In addition, the IEP team addresses the extent, if any, to which the student will not participate with students without disabilities in the general education curriculum and nonacademic activities. The assumption is that all students with disabilities start out in the general education curriculum and setting first, with appropriate services and supports and are removed only when the IEP team determines, based on data, that the removal is necessary.

SLPs must always provide the total amount of service written in the IEP, regardless of the wording of the frequency and duration statement. Use of a range (i.e., thirty-forty minutes) is typically not considered acceptable because the service provider and the parents may view the expected time requirements differently. Unfortunately, this type of ambiguity may result in a state level complaint or due process complaint. SLPs and their administrators of special education should work together to discuss new scheduling formats prior to implementation.

Direct Services

The IEP team may determine that the student's goals and objectives will be met most effectively through direct services. Direct services may be offered in a variety of settings (the classroom, the cafeteria, the intervention room, or other school settings). The type, location, and amount of services are adjusted to meet the needs of the student. Instruction should be provided in the least restrictive setting and result in the least amount of disruption to the student's academic day.

Indirect Services

Indirect services are *not provided directly to the child, but on behalf of the child and* may involve teaching, consulting with, and/or directly supervising other personnel. In order for an indirect service to be listed on the IEP, the student must qualify for the service based upon student need, or the teacher must be in need of the specialized support from the service provider in order to address the student's needs. IDEA does not use the term consultation but does use the term "consult" as one of several methods of indirect service. Indirect services are tied to an IEP goal and must be supported with appropriate documentation of need in the PLAFFP and Findings. Indirect services are not reimbursable by Medicaid. These services include providing information and demonstrating effective instructional and facilitation procedures. The SLP may provide support for staff or analyze, adapt, modify, and create instructional materials and assistive technology for targeted students. While providing consultative services on behalf of a student, the SLP will monitor the student's progress. The indirect service model may be appropriate for students whose teachers require additional support to create materials, implement specific communication strategies, or modify augmentative/alternative communication (AAC) equipment. The classroom teachers may request assistance as they plan, monitor student progress, or make decisions regarding the presentation or selection of materials. This type of support may also be extended to family members and include information on speech-language development and facilitation, home programs, recommended environmental changes, or parent support groups. This level of service may be provided to the family member of a student who is

receiving services or a student who does not meet eligibility criteria under Speech-Language Impairment, but whose IEP team determines that the student needs this type of support as a related service in order to benefit from their special education instruction.

Supplementary Aids/Services/Supports differs from indirect services because these services are not tied to an IEP goal. Supplementary Aids/Services/Supports means that the provider will only work with the staff and parents regarding a specific student, will not have direct contact with the student and will not directly or indirectly support the student toward a goal/objective. Documentation of data that supports the need/continuing need for this service is necessary within the IEP and PWN.

M. Related Services (to Speech-Language Impairment)

Related services are developmental, corrective, and supportive services required in order to assist a student with a disability to benefit from special education services (34 CFR § 300.34). Generally, related services are provided in addition to special education instruction. The IEP team determines what additional services are necessary to assist the student to benefit from the special education services. The IEP team must consider each of the student's goals when determining the services or supports needed. If the IEP team does make the determination that these types of service are needed, they must be documented with supporting data on the IEP and must be provided at no cost to the parent.

Related services do not include a medical device that is surgically implanted, including cochlear implants. They also do not include the optimization of that device's functioning (e.g., mapping), maintenance, or the replacement of that device. However, the student with a surgically implanted device may receive any of the related services that the IEP team determines is necessary for the student to receive a FAPE.

The LEA must appropriately monitor and maintain medical devices that are needed to maintain the health and safety of the student, including breathing, nutrition, or operation of other bodily functions, while the student is transported to and from the LEA or is at the LEA. The LEA must also routinely check external components of a surgically implanted device to make sure it is functioning properly (34 CFR § 300.34(b); 34 CFR § 300.113(b) and (c)).

N. Transportation

Transportation is a related service when it is needed in order for the student to benefit from special education services. Each situation is considered individually, and if, for a particular student, transportation is required, the LEA must provide it or make other arrangements for the student to be transported. In addition to travelling to and from school, transportation, as a related service, also includes travel between schools as well as travel in and around school buildings (e.g., Orientation and Mobility). Thus, the IEP team may need to also assess a student's ability to access school facilities. Like all related services, when an IEP team makes the determination based on the student's PLAAFP, transportation services must be included in the student's IEP.

For some students, special considerations for transportation may be necessary. Some examples of when transportation is addressed in the IEP might include: a student using a wheelchair may require a bus with a lift; a student with severe asthma may need an air-conditioned bus; or in a

similarly related situation, a student may need transportation as well as the services of a paraprofessional on the bus for their safety and well-being. The IEP team must also consider the need to invite the bus driver to the IEP meeting if there are special transportation needs. For example, if the student exhibits severe behavioral concerns on the bus, the bus driver should be involved in the development of the IEP and BIP, if applicable.

If the IEP team determines that special transportation is needed, but due to special circumstances, the LEA and parent agree that the parent will transport the student to and from the home, then the IEP and PWN must reflect this decision and reasons to support it.

O. Interpreting

If a student is deaf or hard of hearing and the IEP team determines that she or he needs a sign language interpreter to receive a FAPE, then that service is required and must be written in the IEP as a special education service or a related service; the team must determine which type of service is most appropriate for the individual student. The IEP team must also address the need for a sign language interpreter in nonacademic and extracurricular activities.

Interpreting services include oral transliteration services, cued language transliteration services, sign language transliteration and interpreting services, and transcription services and other speech-to-text communication access software. Interpreting services would also include special interpreting services for students who are deaf-blind (34 CFR § 300.34(c)(4)).

P. Supplementary Aids and Services

IEP teams must consider the supplementary aids and services, and other supports, that would enable students with disabilities to be educated with students without disabilities to the maximum extent appropriate in the general education setting, other education-related settings, and extracurricular and nonacademic settings (34 CFR § 300.42).

The IEP team determines what supplementary aids and services and other supports, are to be provided to the student with a disability or on behalf of the student in general education classes or other education-related settings, and in extracurricular and nonacademic settings, to enable students with disabilities to participate with students without disabilities in the least restrictive environment. The supplementary aids and services must be based on peer-reviewed research to the extent that they are available.

Examples of supplementary aids and services can be found below:

- Additional educational assistance*
- Audiological services
- Interpreter services
- Parent counseling and/or training
- Teacher training and/or consultation
- Translator

*“Additional Educational Assistance” is a direct service that is typically provided by someone other than the general education or special education teacher of record. Based on the student’s

individual needs identified in the PLAAFP, this service may be provided simultaneously with specialized instruction or general education instruction. When determining the need for this type of service, IEP teams should be cautioned that this service, if not provided appropriately, could enable the student to become reliant on the individual providing the service and in turn have a negatively adverse effect. This type of service could, instead, potentially interfere with the student's ability to progress towards his or her annual goals and participate in the general curriculum.

Q. Assistive Technology Devices and Services

Another example of a supplementary aid or service that may be required for a student is assistive technology. If a student needs assistive technology to participate or gain access to the general education curriculum or participate in another education-related setting so that he or she is educated with students without disabilities to the maximum extent appropriate, the IEP team may determine that teacher training and/or consultation is required so that the teachers know how the assistive technology device is to be utilized in the classroom. The federal definition makes it clear that the LEA is responsible for maintaining, repairing, and replacing assistive technology devices identified in the IEP (34 CFR § 300.6(c)).

Another issue to consider is the need for the assistive technology device at home or in other settings. Federal and state regulations make it clear that if the student needs access to the device at home or in other settings in order to receive a FAPE, then it must be allowed, and the IEP should state that the device is necessary in the non-school setting(s) (34 CFR § 300.105(b)). A consideration by the IEP team regarding this issue is that homework and extracurricular activities are important components of the student's educational experiences.

R. Least Restrictive Environment

Educational placement refers to the educational environment for the provision of special education and related services rather than a specific place, such as a specific classroom or school. The IEP team makes the decision about the student's educational placement. For students with disabilities, the special education and related services must be provided in the environment that is least restrictive, with the general education classroom as the initial consideration. The IEP team's decision must be based on the student's needs per the PLAAFP, goals to be achieved, and the least restrictive environment for services to be provided. "Least restrictive environment" means the student is provided special education and related services with peers who are not disabled, to the maximum extent appropriate. The IEP team must consider how the student with a disability can be educated with peers without disabilities to the maximum extent appropriate, and how he or she will participate with students without disabilities in other activities such as extracurricular and nonacademic activities.

The IEP team must consider each student's unique educational needs and circumstances, rather than the student's category of disability. Placement decisions should allow the student with a disability to be educated with nondisabled students to the maximum extent appropriate. The first option considered for each student with a disability is full time placement in the general education classroom in the school that the student would attend if not disabled, with appropriate supplementary aids and services to facilitate this placement. Therefore, before a student with a disability can be placed outside of the general education environment for all or part of a day, the full range of supplementary aids and services that could be provided to facilitate the student's

placement in the general education classroom setting must be considered. Following that consideration, if a determination is made that the student with a disability cannot be educated satisfactorily in the general education environment, even with the provision of appropriate supplementary aids and services, that student could be placed in a setting other than the general education classroom.

S. Adding Additional Goals and Services to a "Speech Only" IEP

If a student with a disability classification only in the area of speech-language impairment begins to demonstrate difficulties that were not previously identified in the evaluation, before goals can be added to the IEP for any other areas of perceived need (with the exception of transition when appropriate), the IEP team must gather data. This data does not have to be part of a reevaluation review but may result in a reevaluation review depending on the decision made by the team based on the data. This data should pinpoint the student's specific areas of need, outline how these needs were determined, describe the interventions that have been attempted, the evidence-base for the tier one instruction and tier two intervention, progress monitoring data which demonstrates the student's response to the intervention, adjustments made to the intervention program to improve outcomes such as increasing the intensity of the intervention through tier three supports, as well as identification of the specific areas of weaknesses that have not responded to intervention. All of this data should be reviewed by the team in order to consider whether there is reason to suspect another area of disability. If the data demonstrates a reason to suspect a disability in an area other than speech-language impairment, then a reevaluation must be considered. While the reevaluation process is taking place, the student may continue to take part in response to intervention programs. This means that the intervention process can take place *concurrently* with the reevaluation which provides excellent data points to be used in combination with standard assessments batteries.

T. Extended School Year (ESY)

For students with disabilities, the IEP team must consider each individual student's need for ESY services during time periods when other students, both with and without disabilities, normally would not be served. If ESY is determined to be necessary to enable the student to receive a FAPE, then the type and amount of special education services to be provided, including frequency, location, and duration, are documented in the IEP. LEAs must not limit the availability of ESY services to students in particular categories of disabilities, or limit the type, amount, or duration of these necessary services (34 CFR § 300.106).

When the IEP is developed initially or reviewed annually, the IEP team must consider the need for ESY services for students with disabilities including highly mobile students; ESY services are provided to the student with a disability beyond the normal school year of the LEA. ESY services are different than general education summer school. ESY may or may not be provided in conjunction with the general education summer school. ESY may be needed by a student even though summer school is not offered for general education students. In fact, for certain students, services over winter or spring breaks may be needed. The reason for these services is to ensure the provision of a FAPE so that the student can make progress toward the goals specified on the student's IEP and to prevent regression, which would impede such progress.

For an eligible student who will turn three during the summer, the IEP team must make the determination of the need for ESY services during that summer.

The need for ESY is to be decided individually. Therefore, an LEA must not have a policy that no ESY services will be provided, that services are only available to a certain group or age of students, or that services are only provided for a set amount of time or a specified number of days. Personnel providing ESY services should meet the same requirements that apply to personnel providing the same types of services as a part of a regular school program. Furthermore, ESY services must be at no cost to the parent.

The IEP team may use the following questions to decide if a student with a disability needs ESY services. Note that each question is not mutually exclusive and consideration of all of these factors may be warranted. ESY determinations should be based on sufficient information (e.g., data) and the student's s needs.

1. Is a significant regression anticipated if ESY services are not provided? The LEA is not required to provide ESY services merely because the student will benefit from them. Instead, the IEP team should determine if the regression experienced by the student would significantly affect his or her maintenance of skills and behaviors.
2. Does the nature and severity of the student's disability impact the maintenance of attained skills? Each student's needs must be considered individually.
3. Is the student at a critical point in instruction (e.g., emerging skill, transition point, etc.) such that continued specialized instruction and related services, without a break, is crucial to the student's educational program? For example, are instructional areas or related services needed that are crucial in moving toward self-sufficiency and independence? Particular consideration for ESY services should be given to students who need instruction in such self-help skills as dressing or eating, or who need continued structure to develop behavioral control.
4. Are there any special circumstances, such as a large number of absences during the school year that are relevant to consideration of ESY?

The IEP team could use the following information and data in determining the need for ESY services:

- Teacher assessment of the student's success with various instructional interventions;
- Criterion-referenced, curriculum-based, and standardized test data.
- Health and health-related factors, including physical and social/emotional functioning.
- Past educational history, as appropriate, including any previous ESY services.
- Direct observation of the student's classroom performance.
- IEP goals and objectives.
- Student's performance (pretest and posttest data);
- Behavior checklists; and
- Parent interviews and student interviews where appropriate.

U. Reevaluation

If the student is identified with a speech-language impairment, IDEA requires LEAs to conduct a reevaluation at least once every three years to determine if the student continues to have a disability and to determine the educational needs of the student. This reevaluation includes a review of existing data and may include the gathering of additional information if determined necessary by the team. Reevaluations may be conducted more frequently than every three years if requested by the team, but may not occur more than once a year, unless the parent and LEA agree otherwise. A reevaluation is required prior to any change in eligibility.

The first activity the reevaluation team undertakes is a review of existing data. The reevaluation team needs to consider all data that are currently available including evaluations and information provided by the parents, current classroom-based, local, or state assessments, classroom-based observations; and observations by teachers and related service providers; as well as the student's response to scientifically, evidence-based interventions, if implemented. The review of existing data, as part of the reevaluation, may be conducted without a meeting and without consent from the parents (34 CFR § 300.305(b); 34 CFR § 300.300(d)(1)). In addition, the team will need to provide any updated health and developmental information. If the student has a medical diagnosis related to their speech-language disability, this should be listed as well as a statement related to whether the student continues to exhibit characteristics of that medical disability in order to maintain consistency across documentation.

After the team has reviewed the existing data, there must be a determination of what data, if any, will be collected during the reevaluation, with the PWN completed to reflect that determination. If the team has determined that no additional data are needed to determine whether the student continues to be a student with a disability, and to determine the student's educational needs, the LEA must notify the parents:

- of that determination and the reasons for it
- the right of the parents to request an assessment to determine whether the student continues to be a student with a disability, and to determine the educational needs of the student (34 CFR § 300.305(d))

The LEA is not required to conduct the assessment described above unless requested to do so by the student's parents. The information gathered as a result of the reevaluation provides valuable information about the student's progress and needs. In addition to using the information to determine whether the student continues to be eligible for special education and related services, this information should be used to review the IEP, revising it if necessary, in accordance with (34 CFR §§ 300.301 through 300.311).

Whenever an LEA proposes to conduct a reevaluation, the LEA must provide PWN to the parents of the student that describes any evaluation procedures the LEA proposes to conduct (34 CFR § 300.304(a)). In addition, there are standard components of content the notice must also contain. The purpose of providing notice to the parents is so they understand what action the public agency is proposing (in this case, to conduct a reevaluation) and the basis used for determining the action is necessary.

Most components of the reevaluation process are identical to those required for initial evaluation including the participation of the SLP in the reevaluation planning meeting with speech-language concerns are suspected or previously identified. Under certain circumstances the reevaluation may be conducted without parent consent. The informed parental consent need not be obtained if the public agency can demonstrate that the student's parent failed to respond and that the public agency has made reasonable efforts to obtain consent (34 CFR §§ 300.300 (c) (2). A report of the reevaluation must be written and provided to the parents. There may also be some differences from the initial evaluation. The specific individuals on the reevaluation team may be different than they were for the initial evaluation. The roles are the same, but the people themselves may be different:

- The parents of the student
- Not less than one general education teacher of the student (if the student is, or may be, participating in the general education environment)
- If the student does not have a regular teacher, a regular classroom teacher qualified to teach a student of his or her age; or if the student is less than school age, an individual qualified to teach a student of their age
- Not less than one special education teacher of the student, or where appropriate, not less than one special education service provider of the student
- A representative of the local education agency who:
    - is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of students with disabilities
    - is knowledgeable about the general education curriculum
    - is knowledgeable about the availability of resources of the public agency
- An individual who can interpret the instructional implications of reevaluation results
- At least one person qualified to conduct individual diagnostic examinations of students, if these are determined necessary
- At the discretion of the parent or agency, other individuals who have knowledge or special expertise regarding the student, including related services personnel as appropriate (34 CFR §300.321; 34 CFR §300.308)

At the time the reevaluation is completed, even if not additional information is needed, the team should schedule a time to convene in order to make the determination of continued eligibility based in the criteria. Parents must be provided an opportunity to participate in this meeting, which can be conducted at the same time as the IEP team meeting. A copy of the reevaluation report and documentation of whether or not the student continues to be a student with a disability must be given to the parents.

Teams should thoroughly discuss the student's present levels of educational performance and consider the student's rate of progress. The following data collected at the time of the reevaluation should assist the team in decision making:

General Education Curriculum Progress

During the reevaluation, the team should thoroughly examine the student's progress in the general education curriculum. The team needs to understand how the student is progressing in general education curriculum across settings with the available supports. To do this they must understand the outcomes of the general education curriculum and how the skills represented in those outcomes relate to the needs of each student. Are the skills needed for this student's progress different than the skills that general education students need? Is the instruction required for the student to learn those skills different? The general education curriculum outcomes and the supports available through general education are unique to each LEA. Gaining an understanding of what support is available and the level of support needed by the student is one of the most important parts of the reevaluation.

Records Review

The evaluation team should also include as part of the reevaluation a review of records. These records would include such things as information provided by the parents, current classroom-based assessments, district and state assessments, information from previous service providers, screenings, previous evaluations, and reports from other agencies, portfolios, discipline records, cumulative file, and other records.

Interview(s)

It is important to understand the perceptions of significant adults in the student's life and of the student themselves. Parents, teachers, and the student can all typically provide insight into areas of strengths and needs. Interviews can also provide information about significant historical events in the student's life as well as about his or her performance in the classroom and other settings.

Observation(s)

An LEA must ensure the student is observed in the student's learning environment (including the general education classroom setting) to document the student's academic performance and behavior in the areas of difficulty (34 CFR § 300.310). In the case of a student of less than school age or out of school, a team member must observe the student in an environment appropriate for a student of that age. If the student is already in an educational setting the observation should be done in that setting opposed to bringing them into a different setting just for observation. These observations could include structured observations, rating scales, behavioral interventions, functional analysis of behavior and instruction, anecdotal, and other observations (conducted by parents, teachers, related services personnel, and others). The purpose of the observation is to help the evaluation team understand the extent to which the student's skills are impacting his or her ability to participate and progress in a variety of settings. Observations allow you to see firsthand how a student is functioning in naturally occurring settings. Observation data can also allow you to compare the student's behavior to that of peers in the same setting. Observation data helps us to understand not only the student's current functional performance but also the level of independence demonstrated which can help determine necessary supports.

Test(s)

A wide range of tests or assessments may be useful in determining an individual student's skills, abilities, interests, and aptitudes. Typically, a test is regarded as an individual measure of a specific skill or ability, while assessment is regarded as a broader way of collecting information that may include tests and other approaches to data collection. Standardized norm-referenced tests are helpful if the information being sought is to determine how a student compares to a select group of students of the same age or grade. Criterion-reference tests are helpful in determining if the student has mastered skills expected of a certain age or grade level. Tests typically provide specific information but are never adequate as a single source of data to determine eligibility for special education. Because tests require a controlled testing environment, the result is that students are removed from their learning environments to participate. This is a very intrusive way of gathering data and the value of the data obtained should always be weighed carefully against the cost of missed class time. For this reason, tests should be thoughtfully selected and be used for specific purposes when data cannot be obtained through other sources. Some test information may already have been collected, especially if the student attends a school that uses school-wide benchmark assessments. However, additional information may need to be collected during the reevaluation. This might include curriculum-based assessments, performance-based assessments (i.e., rubric scoring), or other skill measures such as individual reading inventories. The testing that needs to be done will vary depending on what information already has been collected and the needs of the individual student. Diagnostic testing might include measures of reading, math, written language, or other academic skills, or tests of motor functioning, speech/language skills, adaptive behavior, self-concept, or any domain of concern. As with all types of data collection, the information from testing needs to be useful for both diagnostic and programmatic decision-making.

Teams should also consider what level of support is needed in order for the student to access and progress in the general curriculum and whether that level of support would continue to require specially designed instruction. If at the time of reevaluation, a student needs only general accommodations, then the student is no longer eligible for special education services but should be referred for consideration of eligibility under Section 504 of the Rehabilitation Act of 1973. These careful considerations should drive the determination of continued eligibility.

If the team has determined that additional data are needed, the team should plan who will collect it and plan to ensure all data will be collected within the evaluation timeline. The procedures to be used to collect the data should be described on the PWN for the reevaluation and provided to the parents for their consent.

V. Adding Additional Goals to a Speech Only IEP

As stated in Section S in this Chapter, it is not necessary to open a re-evaluation to reestablish eligibility if another area of speech-language is suspected as an area of need (i.e., student was initial classified as speech-language impaired based on language, but now fluency is a concern). The SLP should, however, conduct appropriate assessments to collect data that supports the additional area(s) of need and goals. This information should be documented within in the IEP and PWN. In addition, the SLP must adhere to Medicaid requirements related to documentation that supports the addition of a new diagnosis and changes to the treatment plan.

W. Reevaluation and Developmental Delay

Special considerations impacting reevaluation are needed for students who have been determined eligible for special education services under the category of developmental delay (DD). These considerations must be made in accordance with regulations regarding a student's continuing eligibility for services. If a student aged three through six years was determined eligible as a student with DD, a reevaluation must be conducted before the student turns age seven to determine whether the student continues to be a student with a disability as defined by any of the other categorical areas under the law and whether the student continues to need special education and related services. The reevaluation to determine continued eligibility as a student with a disability may take place any time prior to the student's seventh birthday.

The team must plan to administer the assessments and other evaluation measures needed to produce the required data, if any, for determining continued eligibility and educational needs (34 CFR § 300.305(c)). Every reevaluation should be approached and designed individually based on the specific concerns of the student to be evaluated. Thoughtful planning is required to ensure that the team will use appropriate tools to collect the data needed, while eliminating time spent collecting information that is either unnecessary or overly time consuming for no clear purpose. It would be inappropriate to use the same battery of assessments for all students or to rely on any single tool to conduct an evaluation.

X. Discontinuation of Special Education Services for a Student with a Speech-Language Impairment

The decision to discontinue special education services is made by the reevaluation team and based on data. The team should be able to answer yes to both of the following questions for a student to remain eligible:

- Does the student continue to have a speech-language impairment?
- Is there an adverse educational impact which results in the need for specialized instruction?

A student may be found no longer eligible for services in the following situations:

- The student no longer has a speech-language impairment.
- The student continues to have a speech-language impairment, but it no longer affects their educational performance; and therefore, no longer requires specially designed instruction.
- The IEP team determines the student no longer needs speech-language related services to benefit from special education. For example, the student's communication needs can be met through the communication goals worked on in the regular or special education classroom.

Y. Reviewing the Continued Need for Speech as a Related Service

When the IEP team convenes to discuss the need for continued services for a student receiving speech-language as a related service, all evaluation information should be reviewed. The IEP team then determines if the student continues to need these services in order to benefit from special education.

Z. Amending an IEP

Between annual IEP reviews, changes can be made to an IEP. These changes can be made either with or without a meeting. The LEA should develop and implement a policy indicating who has the authority as well as when it is appropriate to amend an IEP without a meeting.

In amending a student's IEP, the parent of a student with a disability and the LEA representative may agree not to convene an IEP team meeting for the purpose of making those changes, and instead may change or modify the student's current IEP. There are no restrictions on the types of changes that may be made, as long as the parent and the LEA representative agree to make the changes without an IEP team meeting. If changes are made to the student's IEP without a meeting, the LEA must ensure that the student's s IEP team is informed of those changes (34 CFR § 300.324(a) (4)) and that the student's IEP is updated in the IEP document and data management system. The parent must be provided with a revised copy of the amended IEP and any other relevant documents to include a PWN.

Specific day-to-day adjustments in instructional methods and approaches that are made by either a general or special education teacher to assist a student with a disability to achieve his or her annual goals do not necessarily require action by the student's IEP team.

The implementation date (e.g., IEP Start Date) of the IEP may change if there is an amendment to the IEP. The implementation date reflects the implementation of services in the most recent IEP, which may be an amendment. The annual review date remains the same until the LEA holds another annual review.

AA. Transfer IEPs

When a student moves into a new LEA, the new LEA must take reasonable steps to promptly obtain the student's records, including the IEP and supporting documents and any other records relating to the provision of special education or related services to the student, from the previous LEA in which the student was enrolled so to avoid any undue interruption in the provision of required special education and related services. The previous LEA in which the student was enrolled must take reasonable steps to promptly respond to the request from the new LEA (34 CFR § 300.323(e), (f), and (g)). Since this is a transfer of educational records from the student's old LEA to the new LEA, no consent for release of documents is required (34 CFR § 99.34).

Chapter Six: SLP Service Delivery

Introduction

Students who meet eligibility criteria under IDEA for special education and related services should receive instruction from school based SLPs, that is:

- Outcome-oriented,
- Integrated with educational activities,
- Diagnostic in nature,
- Dynamic, changing as the student's needs change,
- Based on research-proven strategies, and
- Designed to ensure access to the general curriculum so the student can be successful in academic and educational activities.

The IDEA directs educators to focus on access to the general curriculum for all students. The IEP team should select a service delivery approach that meets the unique needs for each student and may use a combination of approaches for the student during the intervention process. SLPs must use evidence-based practice in their service delivery. Evidenced-based practice incorporates specific steps such as: identification of educational issues, review of existing research, definition of expected outcomes, and evaluation of educational practice. For more information on evidence-based practices (see Chapter Two, Evidence-Based Practice). Any use of a practice that is not research-based should be used on a trial basis for approximately six weeks in order to gauge the success of the intervention and include pre- and post-testing to determine and document the outcome of that practice for that particular student (Meline and Paradiso, 2003). When services are based on research-proven strategies, there is improved accountability for students, schools, and families.

A. Service Delivery Methods

Effective service delivery is dynamic and changes with the needs of the students. Service delivery approaches are selected on the basis of the needs of a specific student and include a variety of methods at different times, including those that may be provided directly to the student in the classroom or less frequently on a short-term basis in pull-out setting or indirectly through consultation with educators and families. The IEP team makes the decisions about the type and amount of direct and indirect services the student will receive in the least restrictive environment.

Decisions are based upon the student's present level of performance, progress made in services received to date, assessment results, IEP goals, and any objectives/ benchmarks. In addition, the IEP team should consider the advantages and disadvantages of specific settings and the necessity for repeated practice in a controlled environment. No single service delivery model can be used exclusively for all students. Multiple perspectives are needed for students as their needs change. When speech and language services are indicated, the service delivery and methods must focus on achieving the goals in the student's IEP. Regardless of the service delivery model used, it is essential that time be scheduled for regular collaboration with parents, general educators, special educators, and other service providers.

B. Flexible Service Delivery

SLPs will have greater control over schedules if a flexible approach to service delivery is maintained. When IEPs are written appropriately, frequency, duration, and setting can provide built-in flexibility for an SLP. Frequency and duration of services, setting, and method of service delivery may vary, depending on the needs of the student. Provision of the same frequency and duration to each student violates the requirement that services be individualized and leaves little room for flexibility and creativity within a SLP's schedule. This allows SLPs to adjust the delivery of services a student receives at a particular period to capitalize on the benefits of increased therapy (ASHA, 2004).

Flexibility in service delivery can be built into IEPs and the SLP's schedule in a variety of ways. Rather than consistently scheduling two sessions per week for thirty minutes each, schedule sixty minutes per week or 120 minutes per two-weeks period, when appropriate for student needs. In addition to accommodating student and classroom needs, this offers the SLP greater flexibility when providing services. The SLP is better able to capitalize on opportunities to integrate services in the classroom or during school events and to reschedule sessions to accommodate absences. This type of frequency and duration statement allows the SLP a myriad of scheduling options that can change to meet the students' needs (see Table 12).

Table 12. Possible Delivery Options for 60 Minutes of Services per Week

Delivery Options	Representative Students
10 minutes, 6 times/week or 15 minutes, 4 times/week or 20 minutes, 3 times/week or	Students with articulation, fluency, or voice goals, who are generalizing skills, or Students who benefit from short, intense therapy sessions on a frequent basis (e. g., students with apraxia), or Students needing frequent review of specific strategies or devices (e. g., alternative/augmentative communication) out of the classroom setting.
30 minutes, 2 times/week	Students who are learning skills such as articulator placement and fluency strategies in a therapy room.
60 minutes, once a week or 45 minutes + 15 minutes once a week	Students with language or pragmatic needs who receive therapy in a classroom setting (Note: some students will benefit from an additional 15 minutes for pull-out sessions to reinforce a particular skill or strategy)

Another option may be to schedule the student on a monthly basis. This may be most useful for students who are monitoring their own performance and need periodic opportunities to check in with the SLP to gauge their progress. It is not uncommon for this level of service delivery to be provided as the data for a student shows a decreasing need for direct support.

C. Models of Service Provision

Co-teaching or Integrated

Therapy integrated into the classroom provides individualized service in a less restrictive setting and does not remove the student from the general or special education classroom. This service delivery method allows the student to receive direct therapy from an SLP while continuing to receive instruction in the general education setting. Teachers become an integral part of the process as they learn to reinforce speech-language goals, assess student progress, and learn specific techniques that will benefit the students with speech-language impairment as well as

other students. This incidental benefit to all students is a naturally occurring outcome of collaborative service delivery. This is often the appropriate approach for students struggling with the acquisition of content because of their language difficulties.

The SLP has exposure to classroom communication including levels of adult and student communication (rate, volume, complexity of language), daily routines, the language of the curriculum, vocabulary demands, and the student's coping strategies. Using this model, the general or special education teacher and SLP jointly plan, teach, and assess the student's progress within the classroom setting. Co-teaching can involve several approaches to sharing instruction. Throughout the academic week, the teacher may then choose to employ strategies learned, use prompts, or cues the SLP has demonstrated, or monitor students for use of a particular skill. This type of information is especially helpful in determining the educational impact of a speech or language impairment.

While in the classroom, the SLP and classroom teacher may present instructional materials collaboratively. With the SLP's assistance, these instructional materials and activities can focus on the speech-language goals of the students receiving speech-language services. The SLP may use this as an opportunity to provide reinforcement for specific objectives in a more natural setting (the classroom) or gather data on the student's performance in the classroom setting without direct instruction. The SLP may work with individual students, small groups, or with the entire class. Table 13 provides six models for co-teaching. This method also enables the SLP to observe the student in a more natural setting and gather data on their use of skills learned in pull-out therapy.

Therapy provided in the classroom provides many benefits for students and staff. Because of the SLP's unique professional preparation in the area of language development and language impairment, the SLP may be able to review the language of instruction and provide helpful feedback to classroom teachers. This includes the language levels of texts, the impact of readability, worksheets and exercises, test formats and question wording, and language levels used in lectures.

Collaboration and consultation with teachers can provide opportunities for the students with language difficulties to take better advantage of the curriculum. Such collaboration and consultation have the potential for generalized benefits to the whole class.

Table 13. Six Models for Co-teaching

One Teach, One Observe	One of the advantages of co-teaching is that more detailed observation of students engaged in the learning process can occur. With this approach, for example, co-teachers can decide in advance what types of specific observational information to gather during instruction and can agree on a system for gathering the data. Afterward, the teachers should analyze the information together.
One Teach, One Assist	In a second approach to co-teaching, one person would keep primary responsibility for teaching while the other professional circulated through the room providing unobtrusive assistance to students as needed.
Parallel Teaching	On occasion, student learning would be greatly facilitated if they just had more supervision by the teacher or more opportunity to respond. In parallel teaching, the teachers are both covering the same information, but they divide the class into two groups and teach simultaneously.
Station Teaching	In this co-teaching approach, teachers divide content and students. Each teacher then teaches the content to one group and subsequently repeats the instruction for the other group. If appropriate, a third station could give students an opportunity to work independently.
Alternative Teaching	In most class groups, occasions arise in which several students need specialized attention. In alternative teaching, one teacher takes responsibility for the large group while the other works with a smaller group.
Team Teaching	In team teaching, both teachers are delivering the same instruction at the same time. Some teachers refer to this as having one brain in two bodies. Others call it tag team teaching. Most co-teachers consider this approach the most complex but satisfying way to co-teach, but the approach that is most dependent on teachers' styles.

Adapted from the book *Interactions: Collaboration Skills for School Professionals*, by Marilyn Friend and Lynne Cook

Pull Out Therapy Model

Sometimes the nature and severity of the speech-language impairment may necessitate service delivery that require the student to be instructed in a setting outside of general education or special education classroom. Therapy services provided in an individual or small group setting, with intensive specialized instruction in specific skills or strategies are typically referred to as pull-out therapy. This service delivery model generally focuses on remediation of articulation, language, voice, fluency, or swallowing deficits.

Caseload Model

The SLP's caseload includes all students eligible for special education services under Speech-Language Impairment as well as students served as a related service under any disability classification. Federal law does not mandate caseload size. Each state sets its own caseload maximum, and each LEA may choose to decrease that amount. South Carolina's current cap on the caseload for a fulltime SLP is sixty. The average caseload is between fifty to fifty-five students, which is lower than the state maximum. The caseload for a combination SLP and SLPA is seventy. However, each caseload maximum should be the amount that allows the SLP to appropriately serve the students on their caseload, regardless of any specified numerical amount. In other words, there should be recognition that certain students, types of special education classrooms and other factors require more of the SLP's time than others. No school or setting is equal to another.

Workload Model

The following is information is adapted from the ASHA Practice Portal, Professional Issues article on caseload and workload. Workload refers to all activities required and performed by school based SLPs. Workload includes the time spent providing face-to-face direct services to students as well as the time spent performing other activities necessary to support students' education programs, implement best practices for school speech-language services, and ensure compliance with the IDEA and other mandates. Traditionally, a school SLP's workload has been conceptualized as almost exclusively synonymous with caseload; the reality is that caseload is only one part of the picture. When a student is added to a caseload for direct services, significant amounts of time within the school day, week, or month must be allocated for additional important and necessary workload activities.

The total number of workload activities required and performed by school based SLPs should be taken into account when establishing caseloads and workloads should take into account how the SLPs position is funded. If the SLP is funded 100 percent through the IDEA monies, then 100 percent of that SLPs time must be allocated to pursuits related to the IDEA related activities. This may include intervention through Coordinated Early Intervention Services (CEIS) funds which are part of the IDEA and require the LEA to submit specific documentation of the allocation of time spent on those activities (see Chapter Four). ASHA recommends taking a workload analysis approach to setting caseloads to ensure that students receive the services they need to support their educational programs (ASHA, 2002).

In the past, ASHA has recommended a maximum caseload number. However, ASHA no longer recommends a specific caseload number, but rather a workload model for the following reasons:

- There is no research to support a specific caseload size.
- The needs of students receiving speech-language services vary greatly, and a specific caseload number does not take into account this variation. For example, a caseload of 40 students with very mild communication disorders could be manageable, whereas a caseload of 40 students with severe disabilities is not likely to support the provision of a Free and Appropriate Public Education (FAPE).

There are several benefits of a workload model:

- Students who are part of a smaller caseload that are more likely to make measurable progress on functional communication measures than those on large caseloads (Schooling, 2003).
- Large caseloads constrain service delivery options with caseload size, rather than student characteristics, frequently influences recommendations about program intensity and/or model of service delivery (Brandel & Loeb, 2011; Schooling, 2003).
- Students benefit from classroom-based models in which the SLP and the classroom teacher co-teach language lessons (McGinty & Justice, 2006), but large caseloads limit the time available to the SLP for collaboration with teachers and other professionals.
- Large caseloads are also consistently associated with difficulties recruiting qualified SLPs in the schools (Katz, Maag, Fallon, Blenkarn, & Smith, 2010; Woltmann & Camron, 2009) and may factor into higher SLP attrition rates in some school districts.

3:1 Model

According to Schraeder (ASHA, 2019) in the article, "The 3:1 Model—One of Many Workload Solutions to Improve Students' Success: A workload balance model allows school-based professionals the opportunity to provide both direct and indirect services", school-based professionals looking for ways to effectively manage their caseloads and each student's needs can turn to the 3:1 model of service provision. This model offers school-based SLPs the chance to provide services directly to students, as well as to provide them for and on behalf of students, or indirectly. The 3:1 model differs from the traditional model of service delivery as the focus of the direct weeks is on learning new skills and the focus on the final week is monitoring stabilization of skills.

The 3:1 model is beneficial as little evidence suggests that two half-hour sessions weekly promote student's ability to acquire and generalize speech or language skills, yet this option is typically chosen by teams that develop the IEP (Flynn, 2010). In a systematic review of research on school service delivery models, Cirrin et al. (2010) found that in many instances classroom-based services were at least as effective—if not more effective—in helping students to meet speech-language objectives.

The goal of the 3:1 model is to move towards aligning goals and objectives with the curriculum for better generalization of skills into the educational setting in which the student currently resides as well as allow for a means to schedule indirect service time (which the traditional schedules do not). It also provides time for make-up therapy which results in more compliant IEP service delivery and affords greater opportunity for the SLP to be in the classroom targeting carryover and generalization directly. In addition, the 3:1 model offers opportunities for collaboration with teachers to develop supports for each student in the classroom in order to increase carryover and generalization of skills which, as noted before, a traditional schedule does not allow time for (Rayburn-Kirk, 2015).

Documentation of a 3:1 model on an IEP may be reflected as follows: direct service × minutes 3×/month + indirect services × minutes 1×/month. There is also the option for indirect services to not be listed on the IEP. The week of indirect services could be referred to as a "student support week" in order to document services are still being provided during that week (ASHA Practice Portal School-Based Service Delivery in Speech-Language Pathology). In some cases, the indirect activity days are spread throughout the month but are equivalent to a week of time (Schraeder, 2019). In one example of how to document this model on an IEP, "Specially designed instruction will be provided by the SLP using the 3:1 service-delivery model in which one week per month is dedicated to indirect service at which time services may include, but are not limited to: classroom observation, teacher collaboration, program planning, preparation of materials, documentation, collaboration with staff, as well as training of staff working with the student. Direct services will be provided by the SLP, x minutes per week, three out of four weeks per month."

Some of the benefits of the 3:1 model include (Schrader, 2019):

- Improved quality of services.
- Fewer SLP vacancies.
- Reduced litigation.

- Cost savings.
- Increased opportunities for collaboration.
- Greater ability to identify students needing services.
- Significant reductions in SLPs taking work home.
- Significant increase in third-party billing.
- Fewer direct-service cancellations.
- Increase in consultations with teachers and parents.
- Better morale.
- Increased ability to integrate IEP goals with classroom curriculum.
- Better management of responsibilities.

In addition, when indirect services include interprofessional practice collaborative activities the benefits of the 3:1 model also include (Campbell, 1999)

- Better generalization of student skills.
- More consistent student progress over time.
- Increased opportunities to train staff on a variety of topics and strategies.
- Use of a variety of learning modalities.
- Addition to be made to a teacher's resource library.
- Extension of application of therapeutic skills and activities into the curriculum.
- Expanded understanding of the classroom expectations for students we serve within the educational environment.

Chapter Seven: SLP and Early Childhood

Introduction

According to South Carolina 2020 child count data, the three largest disability categories for preschool students with a disability are speech-language impairment, developmental delay, and autism spectrum disorder. These three categories of preschool disabilities represent 95 percent of all preschool-aged students served in the state. Since SLPs serve each of these categories of disabilities it is especially critical that SLPs working with the preschool population of students have knowledge about early childhood specific processes and procedures.

Due to the SLP's extensive knowledge of spoken language development, they can play a critical role in collaborating with early childhood teachers and programs in key of development that have a tremendous impact on education success such as vocabulary, phonological awareness, narrative skills as well as social communication. When working as a team with preschool and kindergarten classroom teachers, multilingual learner teachers, reading interventionists and literacy coaches student growth can be effectively and efficiently accomplished. Research shows that when SLPs model and instruct how to implement recommended strategies, accommodations and modifications, the result is improved communication interactions within the classroom setting (Blosser, 2011).

One of the primary reasons for the SLPs involvement in early childhood is with respect to literacy and working within a preventative model by identifying concerns as soon as possible and providing strategies for intervention within general education quickly to prevent gaps between the student and their peers from becoming too difficult to overcome. Oral language is foundational for learning to read. Oral language develops through interactions with adults and peers and refers to listening and speaking. Oral language develops prior to multi-modality language ability including reading, writing, listening, and speaking and is predictive of later word reading and comprehension.

The National Early Literacy Panel (NELP) discovered that the more complex aspects of oral language, including syntax or grammar, complex measures of vocabulary (such as those in which children actually define or explain word meanings), and listening comprehension were clearly related to later reading comprehension. Therefore, if students enter school disadvantaged in terms of oral language development, they are likely to lag behind their peers in comprehension as they advance in school and as language demands increase with text complexity and academic discourse (Shanahan & Lonigan, 2016). This includes preschoolers with speech sound disorders who are at increased risk for deficits with phonological awareness (Anthony et al., 2011; Bird, Bishop, & Freeman, 1995; Foy & Mann, 2011; Lewis et al., 2011; Lewis & Freebairn, 1992; Peterson, Pennington, Shriberg, & Boada, 2009; Raitano, Pennington, Tunick, Boada, & Shriberg, 2004; Rvachew, Ohberg, Grawberg, & Heyding, 2003) as well as receptive vocabulary skills measured during preschool are a strong predictor of reading in second grade (Senechal & LeFevre, 2002). Data collected from the Kindergarten Readiness Assessment (KRA) demonstrates that statewide, approximately only one quarter (27 percent) entered kindergarten at the Demonstrating Readiness level in the fall of 2020. The remaining students, including those who participated in preschool programs, needed supports (40 percent) or needed significant

supports (33 percent) to engage in kindergarten level instruction which further demonstrates the need for collaboration with SLPs to support efforts to provide support.

Early identification and remediation of risk factors is critical to building the foundation for academic success. These risk factors can be identified early with research has demonstrating that deficits in phonological awareness, automatized naming, verbal working memory and letter knowledge have been shown to be robust precursors to dyslexia in students as young as age three (Gaab, 2017). Table14 lists characteristics of dyslexia in preschool, kindergarten and first grade. The result of early identification is that only two to seven percent of all students identified as being at-risk continue to experience reading difficulties after receiving intensive, evidence-based reading intervention in the first two years of school (Mathes et al., 2005; McMaster et al., 2005; O'Connor et al., 2005 Torgeson, 2000; Torgeson et al., 1999; Vellutino et al., 1996).

Table 14. Characteristics of Dyslexia in Preschool, Kindergarten and First Grade

Preschool	• Late in learning to talk • Slow to learn new words • Mixes up pronunciations more frequently or for a longer period of time than same age peers (e.g., "aMinal" for "animal") after multiple corrections • Difficulty with speech production/articulation • May not enjoy being read to or follow along when books are read aloud
Kindergarten and First Grade	• Trouble remembering the names of letters • Trouble remembering the sounds of letters • Difficulty breaking words apart • Difficulty recognizing common words automatically • Does not spell words in a way that the reader can recognize the word

A. Role of the SLP in Early Childhood

Since communication is often one of the first concerns noted by parents and/or teachers, SLPs play an important part of working within an early childhood team. Some of the SLP's roles can include:

- Sharing knowledge of typical developmental norms from birth to age five years across domains.
- Engaging in prevention and early identification activities to promote healthy development and reduce risk factors that can impact a child's development.
- Conducting screening or observations, as well as assessments to identify young students with, or at risk for, a delay or disorder.
- Helping identify systemic patterns of student need with respect to language skills.
- Planning for and conducting professional development on the oral language foundation for literacy and learning.
- Supporting and working with classroom teachers to provide interventions.
- Collaborating with classroom teachers to provide strategies to support oral language and literacy-based skills.
- Consulting with teachers, and providing support to students, parents, and families as part of the diagnostic/instructional and intervention process.

- Making referrals to other professionals and informing the referral source of the outcome of the eligibility process, with the family's consent.
- Developing a plan for implementing services and support that includes speech-language pathology intervention approaches, methods, and settings.
- Collaborating with families, caregivers, agencies, and other professionals involved in the team to help them implement intervention strategies in everyday routines.
- Supporting family interactions that reflect cultural beliefs, values, and priorities.
- Coordinating services to and ensure they are implemented as agreed upon by the team.
- Participating in transition planning to ensure seamless transition and timely access to services for families moving from one program to another (e.g., from IDEA Part CEIS services to Part B school-based services).

Adapted from ASHA Practice Portal Early Intervention and *Responsiveness to Intervention: New Roles for Speech-Language Pathologists (2006)*

B. Participation in Age-Appropriate Activities

When evaluating students ages three, four and five (not yet kindergarten) who are suspected of a disability, the evaluation data must include a variety of information that includes not only information about the presence of a disability, but also information specifically for preschool students about how the disability affects the student's participation in appropriate activities (34 CFR § 300.320(a)(1)). Moreover, in evaluating each student with a disability under 34 CFR §300.304 through 300.306, the evaluation must be sufficiently comprehensive to identify all of the student's special education and related service needs. Therefore, whenever a disability is suspected, regardless of the age of the student, the team must comprehensively consider all possible areas which warrant assessment.

The term "appropriate activities" relates to pursuits and actions that may occur within an educational environment as part of a preschool program or other informal activities. In addition to teacher checklists, the South Carolina Early Learning Standards (SC ELS) Goals and Developmental Indicators are a useful source of information when considering educational impact of a speech-language impairment. The SC ELS includes a list of characteristics across the developmental continuum (see illustration 2) which helps outline present levels and functional performance which is a helpful tool for both the creation of IEP goals as well as completion of the Childhood Outcomes Summary. It can be found on the South Carolina State Department of Education Early Learning and Literacy webpage.

Illustration 1. Sample Developmental Continuum in SC ELS

Goal LDC-2: Children participate in conversations with peers and adults.

Developmental Indicators

Infants Birth to 12 months	**Younger Toddlers** 8 to 21 months	**Older Toddlers** 18 to 36 months	**Younger Preschoolers** 36 to 48 months	**Older Preschoolers** 48 to 60+ months
• Respond differently to facial expressions and tones of voice. LDC-2a • Pay brief attention to the same object the caregiver is looking at. LDC-2b • Engage in turn-taking during social and vocal play with adults and other children (babbling, imitating facial expressions, repeating sounds from languages they hear). LDC-2c	• Establish joint attention by looking at an object, at their caregiver, and back at the object. LDC-2d • Respond to and initiate dialogue with another person. LDC-2e • Use movement or behavior to initiate interaction with another person. LDC-2f	• Engage in short dialogues of a few turns. LDC-2g • Ask questions or use verbal or nonverbal cues to initiate communication with another child or adult. LDC-2h	• Demonstrate an understanding that people communicate in many ways (gestures, facial expressions, multiple spoken languages, sign language, augmentative communication). LDC-2i • Initiate and carry on conversations and ask questions about things that interest them. LDC-2j • With prompting and support, make comments and ask questions related to the topic of discussion. LDC-2k	• Express an understanding that people communicate in many ways (gestures, facial expressions, multiple spoken languages, sign language, and augmentative communication). LDC-2l • Initiate and carry on conversations that involve multiple back and forth communications or turns between the persons involved in the conversation. LDC-2m • Initiate and participate in conversations related to interests of their own or the persons they are communicating with. LDC-2n • Participate in a group discussion, making comments and asking questions related to the topic. LDC-2o • Show an appreciation for and can use humor appropriately. LDC-2p

A brief description of each domain within the SC ELS is below.

Approaches to Play and Learning (APL)

- Showing curiosity and expressing interest in the world around them
- Engaging in play and demonstrating imagination
- Being willing to try new and challenging experiences and explore a variety of problem-solving strategies.
- Demonstrating initiative, attentiveness, focus, and persistence.

Emotional and Social Development (ESD)

- Developing a positive sense of self-identity and awareness and expressing positive feelings about themselves and confidence in what they do.
- Forming positive relationships and having positive interactions with familiar adults and other children.
- Demonstrating the social and behavioral skills needed to successfully participate in groups.
- Identifying, managing, and expressing feelings while recognizing and responding to the needs and feelings of others.

Health and Physical Development (HPD)

- Fostering healthy eating and sleeping habits.
- Engaging in various forms of physical play indoors and outdoors using large muscle control to explore their environment and small muscle control and eye-hand coordination to manipulate objects and work with tools.
- Developing an awareness of their needs and communicating with them.
- Caring for themselves and their environment.
- Becoming aware of basic safety rules and following those rules.

Language Development and Communication (LDC)

- Understanding communication from others and participating in conversations with peers and adults.
- Speaking clearly to express thoughts, feelings, and ideas as well as to ask and answer questions to seek help, obtain information, or clarify something that is not understood.
- Use increasingly growing vocabulary to describe people, places, things, and events while using grammar appropriate to their dialect.
- Developing interest in books, knowledge about books, awareness of print, and to use information presented in books and other print media.
- Learning and exploring phonological awareness, the alphabetic principle, how sounds are represented by symbols (letters of the alphabet) as well as other symbols and writing conventions in early attempts at written language.

Mathematical Thinking and Expression (MTE)

- Demonstrating a beginning understanding of numbers, quantity, and operations during play.
- Exploring early algebraic thinking by sorting, describing, extending, and creating simple patterns during play.
- Forming the ability to identify, describe, classify, and understand, size, shape, direction, and movement during play.
- Understanding early measurement and data analysis through comparing and contrasting as well as using mathematical thinking to solve problems.

Cognitive Development (CD)

- Using the senses to construct knowledge about the world around them.
- Recalling information to apply to new situations.
- Thinking about their own thinking as well as applying advancing reasoning, perspective taking and decision-making skills.
- Experiencing creativity thought various artistic forms.
- Making connections to the groups they are a part of the relationships and roles within their family, home, classroom, and community.
- Exploring connections with their daily experiences in their community and accepting similarities and differences between themselves and others.
- Observing and describing characteristics of living things and exploring the natural world by asking questions, making predictions, and making generalizations.

It is important to point out that the goals and developmental indicators overlap in young children as "development and learning are integrated and interrelated" (SC ELS, 2017). For example, if a young student is sorting a bag of small objects (mathematical thinking and expression) during a play activity with peers (approaches to play and learning), they are observing and describing (cognitive development), participating in a group (emotional and social development), engaging in conversations with peers (language development and communication) and using small muscle control to manipulate objects (health and physical development). When looking broadly at the interrelationship of language across those activities it becomes clear that the young student would not be able to access and progress with the many of the early learning standards and/or similar skills necessary for kindergarten readiness at a rate similar to non-disabled peers without specialized instruction in the area of speech-language development when identified as a student with a speech-language impairment.

C. Developmental Delay and Speech-Language Impairment

Developmental Delay (DD) is defined as a delay in one or more of the following areas: physical development; cognitive development, communication, social or emotional development, or adaptive development for children from birth to age three (IDEA Part C) and children from ages three years zero months (3:0) through five years 11 months (5:11).

A student initially identified as having a developmental delay between the ages of three through five may continue under the category of developmental delay through the age of seven. However, a student aged six years and above who has not been previously identified as a student with a developmental delay cannot initially qualify under the category of developmental delay. The team may consider any of the other disability categories.

When completing an assessment where DD is being considered, the multidisciplinary evaluation team must include the members of the IEP team and other qualified professionals, as appropriate, which may include a SLP when looking at the area of communication. A child qualifying under the category of DD cannot qualify for speech-language impairment as a secondary disability as speech and language concerns have been identified within the classification of DD in the area of communication. Therefore, speech-language services should be provided as a direct service as opposed to a related service.

If a child aged three through six years was determined eligible as a child with DD, a reevaluation must be conducted before the child turns age seven to determine whether the child continues to be a child with an disability as defined by any of the other categorical areas under the law and whether the child continues to need special education and related services. This includes gathering data regarding speech-language development in order to determine if the student continues to meet eligibility as a student with a speech-language impairment. The reevaluation to determine continued eligibility as a child with a disability may take place any time prior to the child's 7th birthday.

D. Extended School Year and Preschool

For an eligible student who will turn three during the summer months, the IEP team must make the determination of the need for Extended School year (ESY) during that summer.

E. Child Find

As noted in the evaluation section of this document, child find requirements begin at birth and overlap with the IDEA Part C child find requirements. Child find in South Carolina involves referral to Part C for students birth to age three, a screening process for students aged three through five, and a general education intervention process for students from kindergarten through age twenty-one. Students in need of special education services should be identified as young as possible, and as soon as possible after the concern is noted. This includes students who are suspected of having a disability even though they are advancing from grade to grade (34 CFR § 300.111(a) (c)). The earliest possible identification of educational or behavioral concerns will diminish the impact of the concerns on the child's education.

F. Transition from Part C to Part B

Both federal and state mandates require that LEAs develop procedures for transitioning preschoolers from an IDEA Part C early intervention program (from birth up to three years of age) to an IDEA Part B preschool program (from three through five years of age not yet in kindergarten) for students with disabilities. LEAs must participate in a transition meeting with parents and Part C personnel prior to evaluation and placement of a toddler into preschool special education services. The IDEA mandates that students who have been served by Part C and who are referred from Part C to Part B must have an IEP developed and implemented by their third birthday. The OSEP requires that the state and each LEA maintain 100 percent compliance with transitioning preschoolers from an IDEA Part C early intervention program to an IDEA Part B preschool program for students with disabilities.

When a child is transitioning from early intervention to the public schools, the referral must be made at least ninety calendar days prior to the child's third birthday and according to the LEA's policy for making a referral for an initial evaluation. Because the student has already been found eligible for services under IDEA Part C, the use of screening instruments is not appropriate as the screening of a student by a teacher or specialist to determine appropriate instructional strategies for curriculum implementation is not considered to be an evaluation for eligibility for special education and related services (34 CFR §300.302). If additional information is warranted to determine continued eligibility, the evaluation must include a variety of assessment tools and strategies to gather developmental, functional, and academic information and be sufficiently comprehensive to identify all of the child's special education and related service needs (34 CFR §300.304 through 300.306) (see also Chapter Three). In addition, evaluators should give careful consideration to the influence of the intervention on the student's skills observed at the time of the evaluation.

The IEP team must consider the content of the IFSP when developing the IEP. The IEP team is not obligated to replicate the IFSP, but should specify services and supports for the child that will provide a free and appropriate public education. It is also suggested that the school team consult with the Early Intervention service providers regarding present level of performance and functional needs. The child's parent has the right to request that the Part C service coordinator, as well as other professionals involved in early intervention, be invited to the initial meetings (e.g., referral, eligibility, IEP).

G. Individualized Family Service Plan (IFSP)
The IEP team may consider the use of an IFSP in place of an IEP for students with a disability aged three through five. The IFSP must be developed in accordance with all of the IEP procedures and contain not yet in kindergarten the content described in 20 U.S.C. § 1436, Part C. If the LEA and the parents agree to use an IFSP, the LEA must provide the child's parents a detailed explanation of the differences between an IFSP and an IEP and obtain written informed consent from the parents to provide services.

If the LEA utilizes the IFSP, as stated above, the IFSP must include the natural environments statement required under Part C (34 CFR § 303.18; 34 CFR 303.344(d)((1)(ii)). The IFSP must also contain an educational component that promotes school readiness and incorporates pre-literacy, language, and numeracy skills (34 CFR § 300.323(b)).

If the child has participated in the Part C and already has an IFSP that is in effect, the IEP team may review the content of the child's current IFSP to determine if it meets the needs of the child for one year, as identified through the Part B evaluation process. If it does, the IEP team may use the existing IFSP, but must ensure that all of the requirements for the development of an IEP are met, including timelines for development and implementation, and designation of a new current implementation date for the IFSP. If the current IFSP does not meet the needs of the child for one year, the IEP team, which includes the parent, will develop a new IFSP or IEP for the child.

H. Preschool Services and Least Restrictive Environment
LRE requirements apply to the placement of preschool students with disabilities just as they do to school-age students with disabilities. The expectation is that students with disabilities are educated in regular classes with supplementary aids and supports. In accordance with 34 C.F.R. § 300.115 through 300.116 a preschool continuum of alternative placements must be provided by each public agency to meet the needs of students with disabilities for special education and related services. As noted in a joint statement by the U.S. Department of Health and Human Services (DHHS) and the US Department of Education's policy statement on inclusion of children with disabilities in early childhood programs, "early childhood special educators, related services providers, and other specialized providers should deliver services to children with disabilities in early childhood programs and with support embedded in everyday routines. They should coteach and coach early childhood teachers and providers to encourage inclusive educational environments, as opposed to focusing on working with children in separate settings or pulling children out of their settings for specialized instruction, as a first option (2015)."

In a memorandum from the SCDE (2019) regarding LRE and preschool continuum of placements the following statement was included: "Section 1412 (a)(5) of Title 20 of the United States code states that "to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, must be educated with children who are not disabled. Further, special classes, separate schooling, or other removal of children with disabilities from the general educational environment may occur only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily." In accordance with 34 C.F.R. § 300.115 through 300.116 a preschool continuum of alternative placements must be provided by each public agency to meet the needs of children with disabilities for special education and

related services. The preschool continuum must include placements listed in the definition of special education under 34 CFR § 300.38 (instruction in regular classes, special classes, special schools, home instruction, and instruction in hospitals and institutions); and make provision for supplementary services such as a resource room or itinerant instruction to be provided in conjunction with regular class placement."

I. Special Education Itinerant Services

Children with disabilities and their families continue to face significant barriers to accessing inclusive high-quality early childhood programs and too many preschool children with disabilities are only offered the option of receiving special education services in settings separate from their peers without disabilities (2013 Part B Child Count and Educational Environments Data File). Special education for preschool children should be provided across a continuum or least restrictive environments including itinerantly. Itinerant early childhood special education is a service delivery model that supports the inclusion of young children with disabilities whose primary placement is a community-based program such as a private preschool, childcare center, or Head Start classroom. Itinerant teachers, also called inclusion specialists, early childhood consultants, or other terms, visit children's community-based classrooms on a regular basis to provide individualized education program (IEP)–based services (Dinnebeil & McInerney. 2011).

Itinerant services are any form of specially designed instruction used to address the child's developmental needs using specialized instruction provided by a variety of early childhood specialists and/or related service personnel. These services are provided in the home setting, a designated location or in a community-based preschool/childcare program for children ages three to five (not yet kindergarten) who have been identified as having a disability under the IDEA. The itinerant personnel may collaborate with families and community classroom teacher to design instructional materials, create interventions for home, school, or community programs, collaborate with families and monitor the child's progress toward targeted goals to meet the student's needs.

A special education itinerant personnel may provide specially designed, individualized or group instruction to meet the unique needs of the student so the child may benefit from their regular early childhood education program. Services may be provided directly and/or indirectly to the child including consulting with teachers to make suggestions regarding how to adjust the learning environment and/or modify instructional methods or materials to meet the individual needs of a student with a disability who attends an early childhood program. In fact, the most common option is delivery of services to a child who is enrolled full time or part time in a community preschool program and receives no other services from the LEA. The collaborative-consultation option is a common recommendation within the professional literature in the provision of itinerant services (Buysee & Wesley, 2001; Dinnebeil et al., 2006; Dinnebeil et al., 2009; Hanft, Rush & Shelden, 2004; Horn & Sandall, 2001; Sandall, McLean, & Smith, 2000) likely due to the fact that children learn better when they have the opportunity for instruction throughout the week as opposed to only 30-60 minutes per week in a traditional model. Since the child's preschool teacher and/or parent is involved with the student for extended amounts of time, the student is more likely to make progress with the assistance of the teacher and/or parent than in 30-60 minutes of direct instruction from itinerant personnel.

The Council for Exceptional Children, Division of Early Childhood acknowledges the consultative model as a recommended practice noting that it is not the intensity or amount of direct instruction that should be the focus because the child's learning occurs between these events (McWilliams, 2005). Due to the fact that itinerant personnel spend less time with the child than their teachers and families it is makes practical sense that a child's primary caregivers participate in the design, selection, and implementation of intervention strategies across a child's day (Dinnebeil et al., 2009; Hanft, Rush & Shelden, 2004; Jung, 2003; McWilliam & Scott, 2001; Wolery, 2005).

Consultation is an essential element of an itinerant service delivery model and can be used to address children's physical access within settings, support for children's social inclusion, support for children's active engagement in activities, identification of and implementation of children's Individual Family Service Plans (IFSP)/Individual Education Program (IEP) goals as well as modifications of supports (Horn & Sandall, 2001). Time spent in consultation and/or coaching can ultimately provide children with more opportunities for intervention and practice than a pull-out service delivery model (Dinnebeil et al., 2009; McWilliam, 1995). That said, the needs of the student must drive the decisions regarding the type of services and supports.

J. Preschool Students Enrolled in Private Settings

The requirement in the IDEA for each LEA to provide equitable participation in special education and related services to parentally placed private school students attending private schools within the LEA's boundaries through a services plan only applies to elementary and secondary school students. South Carolina's statutory definition of "elementary school" does not include preschool programs; therefore, preschool students with disabilities attending private day care programs should not be treated as private school students and service plans should not be offered. These students are entitled to a FAPE, and without compulsory education beginning at age three, a community-based childcare setting might be the child's LRE.

Federal and state regulations require that child find activities including evaluation, if appropriate, be conducted for all students whose parents live within the LEA. Due process rights, including the receipt of appropriate notifications and IEP meetings, apply to all students who qualify as preschool students with disabilities within an LEA. If the LEA in which the child resides agrees the child's placement in the LEA's preschool program is not appropriate for a particular preschool student with a disability, the LEA must locate and offer an appropriate program, which may be the private day care or private preschool program. The LEA may have to pay for either a portion of the cost or the entire private day care program when it does not have an appropriate placement. IDEA funds are to be spent on the excess cost of specialized instruction, accommodations and/or modifications listed in the student's IEP and the general preschool education cost will be provided by the funding stream that would pay for the cost if the child did not have a disability. Regardless of whether a preschool student with a disability is placed in a public preschool program or a private preschool program when the LEA does not have an appropriate program, the LEA must ensure the provision of a FAPE to the student and must pay for all cost associated with the provision of special education and related services in the LRE as stated in the student's IEP.

On the other hand, if the LEA where the child lives convenes an IEP team and the team believes that it can provide the student a FAPE through its preschool program and can offer a continuum of service delivery environments, but the child's parents opt instead to place the child in a private day care or preschool program, the child is then considered parentally placed private preschool student and the LEA of residence is not responsible for developing an IEP or a services plan. If the child attends a private preschool or day care program in another LEA, unlike elementary and secondary school-age students, the LEA where the private program is located is not responsible for the provision of any special education or related services.

K. Preschool Programs (Head Start, First Steps, CERDEP)

In accordance with 34 C.F.R. § 300.115 through 300.116 a preschool continuum of placements must be provided by each public agency to meet the needs of students with disabilities for special education and related services in order to comply with IDEA's expectation that students with disabilities are educated in regular classes with supplementary aids and supports. Section 1412 (a)(5) of Title 20 of the United States code states that "to the maximum extent appropriate, students with disabilities, including students in public or private institutions or other care facilities, must be educated with students who are not disabled. Further, special classes, separate schooling, or other removal of students with disabilities from the general educational environment may occur only when the nature or severity of the disability of a student is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily."

In South Carolina there is a continuum of settings available to meet the diverse needs of students ages three, four, and five (not yet in kindergarten) with a disability in order to adhere to least restrictive environment (LRE) requirements. Preschool students with disabilities can access high quality early childhood educational activities in regular preschool classes, special education classes, special schools, home instruction, and instruction in hospitals. A student may be served in an age-appropriate public setting such as the Child Early Reading and Development Education Program (CERDEP), a district funded program, a Title 1 preschool program, First Steps or Head Start program. LEAs that do not operate programs for preschool students without disabilities are not required to develop general education programs solely to satisfy the LRE requirements. However, many LEAs provide early childhood services to students without disabilities via programs such as the CERDEP, childcare centers, and various other early childhood settings all constituting general education environments. LEAs that do not operate early childhood programs for students without disabilities may seek alternative means to provide inclusive options for young students through collaborative relationships with private preschool programs or other community-based settings. If a preschool student with a disability is already attending a general education preschool program, the IEP team should consider whether special education and related services can be provided in that setting with the use of supplementary aids and services, or supports from LEA personnel (Federal Register, August 14, 2006).

<u>Head Start</u>

Under the ESSA and state plans for Title I, SEAs are required to coordinate with other programs that provide services for young students, including programs administered under the Child Care and Development Block Grant and Head Start Act) as well as the IDEA. Head Start is a free federal program for preschool students from low-income families, from birth to age five. It is

operated by local non-profit organizations, and prepares children for school by enhancing their cognitive, social, and emotional development. Head Start establishes effective procedures for timely referral of students with disabilities, collaborates with that agency, and establishes effective procedures for providing necessary early intervening services to children with disabilities prior to an eligibility determination by the State or local agency. The SCDE Office of Special Education services, in partnership with Head Start, has a Memorandum of Agreement (MOA) with Head Start regarding screening, eligibility determination, and service delivery models. This MOA shapes the local level MOAs between school districts and Head Start grantees. The purpose of this agreement is to meet the requirements of the Head Start Act (42 U.S. Code§ 9837(b)).

First Steps

South Carolina First Steps is a program that works collaboratively to ensure that all children start school ready to reach their highest potential with engaged support from their parents, caregivers, and communities. First Steps offers state-funded, full-day 4-year-old kindergarten programs available at no charge for eligible children and builds and respective partnerships with families to promote child health and development. This includes parenting programs which are proven to improve birth outcomes, increase knowledge of early development, foster positive parenting practices, prevent abuse and neglect, promote family literacy, and prepare children for school success. In addition to the 4K programs and their commitment to school readiness, First Steps offers programs that enhance food security, prevent chronic health conditions, and address developmental delays. When families can meet their nutritional needs, access comprehensive medical care, and connect with appropriate intervention services, children are more likely to start school healthy and ready to succeed. First Steps has partnered with Perinatal Awareness of Successful Outcomes (PASO), the state's leading organization supporting Latino families to expand the Connections for Child Development program in Beaufort, Berkeley, Charleston, and Lexington counties. Bilingual Community Health Workers (CHWs) screen children's development in the family's home and provide referrals to appropriate resources, therapies, and specialty care.

Child Early Reading and Development Education Program (CERDEP)

Child Early Reading and Development Education Program (CERDEP) is a four year old kindergarten program for at risk children provided by districts which provides a comprehensive, systemic approach to reading that follows the State Reading Proficiency Plan and the district's comprehensive annual reading proficiency plan to support early literacy efforts. CERDEP providers must comply with all state and federal laws and requirements, including those prohibiting discrimination based on the need for special education services. (S.C. Code § 59-156-140(B)(1)(9))

Students with disabilities who have an IEP are entitled to a free appropriate public education (FAPE) between the ages of three and twenty-one inclusively, as outlined by IDEA and the South Carolina State Board of Education Regulation 43-243. As such, a child with an IEP may not be denied access to participation in public school services, which include participation in CERDEP programs. As required by federal and state statutes and regulations, each child's IEP team determines the appropriate placement in the least restrictive environment and makes all decisions relative to a student's special education and related service needs.

Because the goal of the CERDEP program is to ensure children entering kindergarten are prepared to access the general education curriculum, children in poverty and children with disabilities are granted priority entrance into the CERDEP class. For students with disabilities, such placement should be determined by and in coordination with the student's IEP team to ensure that such placement provides the student with FAPE. All placements, including in CERDEP programs, must ensure that the student is provided with the necessary accommodations, special education, and related services consistent with the student's IEP and with federal and state statutes, regulations, policies, and procedures.

As part of a four-year-old kindergarten program for at risk children, students are part of a program designed to support school readiness. Act 284 requires classroom teachers to use evidence-based reading instruction in prekindergarten through grade twelve. This includes instruction targeting oral language, phonological awareness, phonics, fluency, vocabulary, and comprehension. In addition, teachers must administer and interpret valid and reliable assessments, analyze data to inform reading instruction and provide evidence-based interventions as needed so that all students develop proficiency with literacy skills and comprehension (CERDEP guidelines, 2020-21).

The CERDEP Guidelines document available on the SCDE website provides guidance including the requirement that schools assess all 4K students in language and literacy within the first forty-five days of school and the last forty-five days using one of the three approved assessment tools The state-approved assessments have components that can be used as progress monitoring tools for students who are not at benchmark. It is highly recommended that 4K teachers administer the readiness assessments at mid-year to assess all student's progress. However, students that are receiving additional support in Tiers two and three need more frequent progress monitoring. This progress monitoring data is an important part of monitoring student response to this series of increasingly intense interventions which assists in identifying and addressing academic and behavioral difficulties prior to student failure. Without the use of these interventions, it cannot be determined whether a student's learning difficulties are due to a disability and require special education services or if the student is merely in need of additional services or supports for a period of time. As a result of general education interventions, the LEA would have data-based documentation of repeated progress monitoring of achievement and/or behavior at reasonable intervals that indicate the instruction and educational interventions and strategies presented to the students in the general education setting were not adequate and indicated an evaluation for special education is appropriate (34 CFR § 300.309(c)(1)). A parent or adult student may request an evaluation at any time and the intervention process cannot be used as a reason to delay or deny an evaluation.

L. Childhood Outcomes Summary

The IDEA requires each state to develop a state performance plan/annual performance report (SPP/APR) that evaluates the state's efforts to implement the requirements and purposes of the IDEA and describes how the state will improve its implementation.

The SPP/APR includes indicators that measure child outcomes as well as other indicators that measure compliance with the requirements of the IDEA. Indicator 7 of the SPP/APR measures

Child Outcomes across three outcomes listed below using the Childhood Outcome Summary (COS). Comprehensive information about Indicator 7 can be found in the Childhood Outcome Summary Guidance Document. Below are a few highlights that briefly outline fundamentals of the Childhood Outcome Summary.

The three childhood outcome areas are as follows:

1. Children will demonstrate positive social emotional development (including positive social relationships)
    a. Involves relating with adults, relating with other children and (for older children) following rules related to groups or interacting with others.
    b. Includes attachment/separation/autonomy, expressing emotions and feelings, learning rules and expectations, social interactions and play skills.

2. Children will acquire and use knowledge and skills, including early literacy skills
    a. Involves thinking and reasoning, remembering, problem solving, using symbols and language, and understanding the physical world.
    b. Includes imitation, early concepts (symbols, pictures, numbers, classification, spatial relationships), expressive language and other communication, early literacy and numeracy skills.

3. Children will use appropriate behavior to meet their needs
    a. Involves taking care of basic needs, getting from place to place, using tools (e.g., fork, toothbrush, crayon) and (in older children), and contributing to their own health and safety.
    b. Includes integrating motor skills to complete tasks, self-help skills (e.g., dressing, feeding, grooming, toileting, household responsibility) and acting on the world to get what one wants.

Applicable Ages

All preschool students ages three through five (not yet kindergarten) determined eligible under any category of disability and placed in special education must have an entry/exit COS. This includes IEPs as well as ISPs.

All Team Members Are Needed to Complete the COS

The COS must be completed as a team, not by one individual. The team must invite and make all reasonable efforts to include parents, teachers/adults who work with the child and know the child across a variety of environments as well as participants who have knowledge of typical child development. All of these members must use a compilation of data that looks at the child's functioning in each of the three outcome areas. All participants bring data (observation, curriculum measures, assessment data, evaluation reports, etc.) to discuss collaboratively to determine a rating.

Document and Discuss Three Areas

As part of the initial IEP process, the team should discuss the three child outcome areas and identify the COS rating that most accurately represents the child's current skills and behaviors

using information from multiple data sources which may include results from norm-referenced assessment, other forms of standard assessment (curriculum-based measures, criterion-based measures, etc.), parent input, and provider/teacher observations. As mentioned previously, the SC ELS developmental milestones is a helpful tool for looking at a child's abilities in all three outcome areas along a developmental continuum.

On the COS form, the team will need to document:

- The evidence that led to the selected rating (i.e., age-expected functioning, immediate foundational skills, skills, and behaviors that will lead to foundational skills).
- The individuals who participated in the conversation and the decision.
- The rationale for the rating decision.

If the team cannot document examples of the child's functioning in order to support the rating, the team must reconsider the rating. For example, if the team decided that the COS rating was seven, but the team is not able to support this with evidence and examples of the child's age-appropriate functioning, then the team needs to reconsider the rating so that the rating is consistent with the evidence. See Table 15 for definitions of the outcome ratings one through seven. Keep in mind that scores of six and seven would be considered age appropriate. If the student is being served in special education in one or more of these areas rated as a six or seven, the team should carefully consider the student's needs and/or services.

If the COS data stays the same or goes down, it is possible to still rate the student as having made progress as the question is related to the child's functioning relative to their functioning at the last rating. If the child has acquired new skills in the outcome area, the child has made progress. The answer to the question about progress should not be based on changes in the ratings, but on whether the child has used any new skills. For example, a child who receives a rating of four at entry and four at exit will show higher-level functioning at exit (a "yes" on the progress question) because to maintain a rating of four over time the child's functioning must improve relative to what that child could do at the previous rating. A child who receives a rating of four at entry and three at exit could also receive a "yes" on the progress question if they have acquired new skills in the outcome area, but the rate of development is slower than for peers of the same age.

Completing the Entry COS

Data used for the entry COS will be based on information collected at the initial eligibility determination. The special education services start date should be used for entry COS. The entry COS must be submitted for data entry within fifteen business days of the eligibility determination. Completing the COS process at this time will provide baseline data and a more accurate representation of entry level skills upon entry into preschool special education services. A COS is not required to be completed for a student who is initially being placed at the age of five and in enrolled in kindergarten. The date used for COS entry should be the date special education services begin. If a student is not eligible for services under the IDEA, no entry or exit COS is required. Students on an IEP or an ISP must have both an entry and exit COS.

Completing the Exit COS Prior to Start of Kindergarten

The COS reflects the functioning of a child served in preschool ages three through five, so the exit COS must be completed once the child exits the preschool program and enters kindergarten. Regardless of the type of program, location of service delivery or amount of service delivery, if kindergarten is selected as the grade of the student by the IEP team, then the student is considered as being in kindergarten. All exit COS should be completed at the time the kindergarten IEP is written regardless of age or disability. The recommendation is to complete the exit COS three weeks before the end of the school year. For schools providing IEPs on a year-round basis (sometimes referred to as "birthday IEPs") and the child's IEP is being held mid-year, the recommendation is still to complete the exit COS three weeks before the end of the school year. In that situation, the student will have two different LRE codes; one for the remainder of the current year and one to start the next school year.

Transfer IEPs and Entry/Exit COS

If a student transfers to the district from within the state and entry COS should be completed even though the student may not receive a full 180 days of service with the LEA as they may have previously received service with another district. If a student transfers to the district from out of state with COS data, it should be used. If COS data was not shared, contact the previous school district to obtain the data. If for some reason the district is unable to provide that information, the LEA must complete an entry COS making a notation that this is a transfer student and the reason for not obtaining the entry data. In instances where a student transferred into the district from within the state with an entry COS and the provider did not enter the data into Enrich, best practice dictates that the provider accept the COS program that is in Enrich which will result in a complete COS transaction which will eliminate the need for further clarification.

Defining Age Expected, Immediate Foundational, and Foundational Skills.

- Age-Expected Skills: Children typically develop skills during a recognized range of months. For example, children are expected to take a few steps on their own between 11 and 13 months old. If a child develops the skill within this recognized range of months, the development of that skill is considered age expected.

- Immediate Foundational Skills: As children develop, immediate foundational skills occur just before an age-expected skill. For example, learning to walk comes after many other skills – crawling, pulling to a stand, cruising furniture, standing alone and finally taking steps. In this example, standing alone is an immediate foundational skill to walking.

- Foundational Skills: As children develop, foundational skills occur several steps before reaching an age expected skill. For example, learning to walk comes after many other skills – crawling, pulling to a stand, cruising furniture, standing alone and finally taking steps. In this example, crawling and pulling to a stand are foundational skills to walking.

Table 15. Definitions for Outcome Ratings

Age-Expected Skills	**7**	• Child shows functioning expected for their age in all or almost all everyday situations that are part of the child's life. Functioning is considered appropriate for his or her age. • No one has any concerns about the child's functioning in this outcome area.
	6	• Child's functioning generally is considered appropriate for their age but there are some significant concerns about the child's functioning in this outcome area. These concerns are substantial enough to suggest monitoring or possible additional support. • Although age-appropriate, the child's functioning may border on not keeping pace with age expectations.
Primarily Immediate Foundational Skills with Increasing Degree of Age-Expected Skills	**5**	• Child shows functioning expected for their age some of the time and/or in some settings and situations. Child's functioning is a mix of age-appropriate and not age-appropriate behaviors and skills. • Child's functioning might be described as similar to a slightly younger child*.
	4	• Child shows occasional age-appropriate functioning across settings and situations. More functioning is not age-appropriate than age-appropriate.
Primarily Foundational Skills with Increasing Immediate Foundational Skills	**3**	• Child does not yet show functioning expected of a child of their age in any situation. • Child uses immediate foundational skills, most or all of the time, across settings and situations. Immediate foundational skills are the skills upon which to build age-appropriate functioning. • Functioning might be described as similar to a younger child*.
	2	• Child occasionally uses immediate foundational skills across settings and situations. More functioning reflects skills that are not immediate foundational than are immediate foundational.
	1	• Child does not yet show functioning expected of a child their age in any situation. • Child's functioning does not yet include immediate foundational skills upon which to build age-appropriate functioning. • Child's functioning reflects skills that developmentally come before immediate foundational skills. • Child's functioning might be described as similar to a much younger child*.

*The characterization of functioning like a younger child only will apply to some children receiving special services, such as children with developmental delays.

Chapter Eight: Speech Sound Disorders

Introduction

Speech sound disorders fall into two types of difficulty: articulation and phonological processes. While the terms articulation and phonology are both used when describing speech sound production, they are not interchangeable. Articulation can best be described as the movement of the articulators when producing a sound, while phonology is a component of language that controls the patterns of speech sounds. When describing speech sound production errors in terms of articulation, the assumption is that there is a problem with the movement of the articulators which needs to be corrected on a sound-by-sound basis. When describing speech sound production errors in terms of phonology, the assumption is that there is a problem with the patterns of sounds in which remediation should focus on changing the patterns of sound production in groups.

A. Phonological Processes

A phonological process is a systematic change to a class or group ((a pattern) of sounds that simplifies production for the student as a part of normal or disordered development. While the use of phonological processes appears to be part of normal development at very young ages, student's use of phonological processes should decrease steadily as they get older. Most processes fade by age five, although researchers' data on specific age norms for phonological processes varies.

When processes continue beyond developmental expectations and/or multiple sounds are in error, students may be very difficult to understand. This is referred to as speech intelligibility. In schools, speech intelligibility is important because it indicates how much the weak phonological processes are affecting the student's communication ability. A study by Overby, Carrell, and Bernthal (2007) found that speech intelligibility is a variable that influences teachers' perceptions of a student's academic, social, and behavioral performance in school. Some processes have been shown to have a greater relative effect on intelligibility than others. For example, research shows that final consonant deletion (leaving off the final sound of a word) and stopping (stopping the air flow for specific sounds such as /s/ which may result in the consonant sounding more like a /t/) have a greater impact on intelligibility than velar fronting (production of a back sound such as /k/ or /g/ as a front sound such as /t/ or /d/). Therefore, when discussing the presence of an impairment and possible educational impact, it is important to consider speech intelligibility and phonological processes.

Phonological analysis is especially helpful when developing a therapy approach for students with multiple sound errors and/or unintelligible speech (Hodson, 1992). By addressing the production of multiple sounds within a pattern simultaneously, phonological remediation has been shown to be both effective and efficient in improving sound production and increasing speech intelligibility (Klein, 1996). While this normative information is one factor discovered during an evaluation, determinations of whether or not a student's speech production is disordered and eligible for special education and should also include other factors such as consideration of intelligibility, consistency of productions, and stimulability (Bernthal & Bankson, 1998).

Phonological processes fall into three general categories:

1. Whole Word/Syllable Processes –These processes change the structure of the syllable by either taking away a sound(s), adding sound(s), moving sounds, or a combination of these. Final Consonant Deletion would be an example of a process that would fall in this category.
2. Substitution Processes – These processes replace one sound with another, changing something in the manner, place or voicing of the sound. Stopping and Fronting are both types of substitution processes.
3. Assimilation Processes - These processes are also known as harmony processes, as one sound changes to become more like (or exactly like) another sound in the word. For example, when a sound at the beginning of a word changes one at the end, it is described as Progressive Assimilation.

The following processes would be considered to have minimal impact*:

- Gliding
- Consonant Cluster Reduction with /s/
- Vowelization post-vocalic /r/ or /l/.

The following processes would be considered to have moderate to substantial impact*:

- Final Consonant Deletion
- Initial Consonant Deletion
- Velar Fronting
- Gliding of liquids
- Stopping
- Weak Syllable Deletion
- Cluster Reduction for /l/, /r/ and /s/
- Depalitalization of Singletons

*Only processes that are not developmental and occur in 40 percent or more opportunities should be noted on the assessment summary form. However, when there is evidence of at least one process that meets the 40 percent criterion, it is important to document any additional processes used more than 15 percent.

B. Articulation

Under IDEA, students must not be considered to have an articulation impairment based on characteristics that are consistent with cultural and/or linguistic diversity. In the article by Ireland, McLeod, Farquharson, and Crowe "Evaluating Children in U.S. Public Schools with Speech Sound Disorders: Considering Federal and State Laws, Guidance, and Research" (2020) they review this research and IDEA requirements.

An articulation impairment is characterized by an inability to use speech sounds that are appropriate for a person's age and linguistic dialect. Such errors in sound production may interfere with intelligibility, social communication, and/or academic and vocational achievement.

C. Special Considerations
Students who demonstrate evidence of problems with hearing, structure and function of the speech mechanism (e.g., cleft palate), or motor speech difficulty (e.g., apraxia) should be viewed differently than those with more common developmental speech sound disorders. The presence of such etiological variables would suggest a high priority for intervention. After intervention, when the student has reached a plateau in their motor skills and has mastered compensatory strategies, the student may no longer be eligible for services.

D. Speech Sound Assessment Summary
The Speech Sound Production Assessment Summary form (Appendix L) provides an opportunity to review data objectively. The team should review all data and identify the descriptor that best describes the student's performance within each column. This summary of the assessment data may be helpful as the team reviews the two prongs of eligibility as a student with a speech-language impairment (presence of a disability in addition to educational impact and thus the need for specially designed instruction).

NOTE: The presence of an articulation/phonological impairment does not guarantee the student's eligibility for special education. Educational impact as a result of the identified impairment and thus the need for specially designed instruction, as well as sociocultural considerations must be met in order for a student to be eligible under IDEA.

E. Speech Sound Considerations
Some areas of assessment may require additional consideration depending on the age of the student. The following guidelines may be helpful:

- Ages 3-5: Intelligibility, phonological processes, and stimulability are usually more important than social and vocational considerations.
- Ages 6-9: Speech sound production norms and stimulability are the typical focus. Social and academic variables should be given strong consideration.
- Ages 9 and up: Stimulability and social and academic/vocational considerations are of high importance for this age group.

F. Presence of a Disability and Educational Impact of Speech Sound Disorder
Evaluation data should be gathered from several areas as part of a comprehensive assessment used to determine eligibility based on prongs of eligibility. IDEA regulations require multiple sources of information such as teacher, student, and parent reports, interviews, norm-referenced tests, probes, and checklists (see Chapter Three). Use of only one of the items would not be sufficient to determine eligibility and to determine appropriate goals. To determine the presence of a disability and the presence of an adverse educational impact, data must come from a variety of sources.

<u>Academic Activities, Tests, and Measures Data.</u>
Sources may include any of the following: parent/teacher checklists, classwork, homework, data from achievement tests, universal screening data, benchmark tests, pre-referral intervention data, any speech production errors that are evident in written work samples or artifacts (e.g., spelling errors that mirror verbal productions), etc.

Probes of Phonological Awareness (see Appendix I)

The connection between speech-language disorders and difficulty with reading is well established. The majority of all poor readers have an early history of spoken language deficits with 73 percent of second grade poor readers having poor phonemic awareness or spoken language problems in Kindergarten (Scientific Studies of Reading, 1999). In addition, atypical speech sound errors in preschool are predictive of school-age phonological awareness abilities; if more than 10 percent of the student's speech has atypical errors, the student is likely to have deficits in phonological awareness, reading, and spelling (Preston & Hull, 2012). Therefore, probes of phonological awareness are encouraged in order to determine educational impact and the need for goals targeting the delayed skills. If a student has one phonological awareness skill that does not meet age-appropriate norms, this would be considered to have minimal impact on the student's academic potential. However, if two or more skills do not meet age-appropriate norms, this could have a significant impact on a student's academic success.

Intelligibility Data (see Appendix H)

Intelligibility should be assessed in multiple settings by at least one familiar listener. Teachers play an important role in documenting intelligibility in the education setting. An objective measure of intelligibility can help quantify the severity of the impairment, provide a meaningful measure of progress, and can help predict outcomes of speech function (Allison, 2020). Ratings of intelligibility should be made using connected speech. One option for determining intelligibility is The Intelligibility in Context Scale (McLeod, Harrison, & McCormack, 2012) (see Appendix H). This is a free parent-report tool that considers student's intelligibility with different communicative partners in over sixty languages. Typically developing four to five-year-old students are "always to usually" intelligible, even to strangers (McLeod, 2020). The overall impact of decreased intelligibility (ICS score of 3 or lower as well as percentage based on age) should be determined with consideration of environment. Other evidence-based methods for documenting intelligibility are also permitted. For young students who are highly unintelligible, Gordon-Brannan and Hodson (2000) suggest an alternative measure of intelligibility using imitated sentences.

Students are typically more intelligible in conversation with a known context than when imitating sentences. However, some advantages of the imitated sentence measure include:

- suprasegmental features and some syntactic/morphological and contextual cues are available,
- less time to administer and score than the continuous-speech procedure, and
- the student's intended utterance is known by the examiner.

Speech Sound Production Data

While norm-referenced assessments of speech sound production may be administered, standard scores alone are not enough to determine the presence of a disability. The SLP should also consider data from any pre-referral interventions, dynamic assessment activities, and an oral motor examination to ensure that an underlying physical structure or motor issues are not interfering with speech production. The SLP must also determine whether speech sound errors are developmentally appropriate by using the most current norms available as per requirements of evidence-based practice. At the time the SLP Companion Guide was written (published May 2022), the Crowe & McLeod (2020) norms are the most current norms. These norms represent a

compilation of 15 studies of 18,907 children from the United States. The Crowe and McLeod norms as shown in Table 16 are intended to support the identification of the presence of an impairment. The ages of acquisition represent the age at which 90 percent of children have typically mastered the sound. Because there is a normal range of acquisition and some children acquire sounds without treatment after the ages listed in these norms, incorrect production of a sound does not conclusively indicate an impairment. The standard deviation for the McLeod and Crowe normative data is six months to eighteen months depending on the specific speech sound.

Table 16. McLeod and Crowe Norms for Consonant Acquisition (2020)

Years of Age	The student must demonstrate ≥ 3 sounds that do not meet norms for acquisition						
0-3 years	/b/ (2;7)	/n/ (2;9)	/m/ (2;9)	/p/ (2;9)	/h/ (2;11)	/w/ (2;11)	/d/ (3;0)
3-4 years	/g/ (3;1)	/k/ (3;2)	/f/ (3;2)	/t/ (3;3)	/ŋ/ (3;4)	/y/ (3;10)	
4-5 years	/v/ (4;3)	/dʒ/ (4;3)	/s/* (4;3)	/tʃ/ (4;6)	/l/* (4;6)	/ʃ/ (4;7)	/z/ (4;9)
5-6 years	/ð/ (5;9)	/ʒ/ (5;11)	/r/* (5;6)	/ɚ/ (5:6) *all vowel controlled /r/ phonemes develop at the same time as /ɚ/ including /ar/, /or/, /ear/, /ire/, /air/			
> 6 years	/θ/ (6;5)						

*Special notations and considerations:

- For students producing lateralized sibilants, using norms to determine if therapy is warranted is not best practice because self-correction does not usually occur with lateralization. There is literature to support not using developmental norms to determine when to provide therapy for lateral /s/.
- For the most part, when a consonant occurs in initial, medial, and final position of a word it counts as **one** error. However, when the consonant error appears within a consonant blend, it counts as an **additional** error. However, /r/ in the final position is *not* /r/ in the final position; it is a vowel controlled /r/ - an additional error. As such,
    - /r/ can have three possible total errors (1. initial, medial, 2. blends 3. and vowel controlled)
    - /s/ can have two possible total errors (1. initial, medial, final 2. Blends). However, it may also be likely that there are errors in production of /z/ which would contribute to the overall total of error sounds.
    - /l/ can have a possible total of two errors (1. initial, medial, final 2. blends)

Examples

- An error of /s/ in initial, medial and/or final position counts as one error (e.g., “fing for “sing”, “mey” for “messy” and “hout” for “house”).
- An error of /l/ in initial, medial and/or final position count as one error (e.g., “wight” for “light”, “bawoon” for “balloon” and “baw” for “ball”).

- Any errors of /r, s, or l/ within a consonant cluster error counts as one error (e.g., if student says “bwon” for “brown and “gween” for “green” – that counts as one error; an error of consonant /r/ blends).
- Errors of /r/ in initial position and medial position that starts the second syllable count as one error (e.g. “wabbit” for “rabbit” and “piwate” for “pirate”).
- Vowel controlled /r/ is a separate error from initial and final position /r/ (e.g. “huh” for “her”, “gahden” for “garden”, “howus” for “horse”, “heuh” for “hear”, “tiyuh” for “tire”, “hayuh” for “hair”). However, each vowel controlled /r/ is not counted separately though it is important to document which of the vowel controlled r productions are in error and write goals for them separately, but do not count them separately.

Stimulability (see Appendix J)

Stimulability is an important factor when determining the level of impairment and the need for specially designed instruction. A student who is stimulable for a misarticulated sound may benefit from a home practice program or general education classroom support. In contrast, a student who is not stimulable for the target sound may require direct intervention to acquire and generalize the sound. Sounds that are imitated correctly some of the time (sixty percent or more) are presumed to be stimulable and would not be eligible for specially designed instruction.

There are several options for determining stimulability. One of them includes use of the Miccio Probe (Miccio, A.W., 2002) (see Appendix J). Stimulability is determined for all error sounds, regardless of age appropriateness. The following is a summary of the process:

- Only sounds absent from the inventory are tested. The student is asked to imitate these specific consonants in isolation or nonsense syllables. Those sounds correctly imitated some of the time are presumed to be stimulable.
- Provide the student ten opportunities to produce a sound: in isolation and in three-word positions in three vowel contexts, [i], [u], and [ɑ]. The corner vowel contexts: a high (or close) unround front vowel, a high round back vowel, and a low unround vowel usually reveal any consonant-vowel dependencies.
- If multiple sounds are absent from the inventory, the probe may be shortened by administering only one vowel context during the initial assessment.

Percentage of Consonants Correct (see Appendix K)

Percentage of Consonants Correct (PCC) yields severity ratings on a four-level scale and has been accepted as a valid index of severity in the field of speech-language pathology. A study by Johnson, Weston, and Bain found that an imitative sentence procedure provided PCC scores that compared favorably to those derived from spontaneous speech, and the imitative procedure was significantly faster than sampling spontaneous speech. Spontaneous samples should include ninety different words. If the student is so unintelligible that it is impossible to identify this number of different words, then a single word assessment tool may be used for analysis. Either imitative or spontaneous speech samples may be used when calculating PCC. A student must have PCC value of 84 percent or less to demonstrate moderate to substantial impact.

Imitative Sentence Procedure: The abbreviated procedures below are based on the recommendations of Johnson, Weston, and Bain (2004) and Shriberg and Kwiatkowski (1982):

- Imitative samples of 36 sentences with appropriate MLU for the student's age should be used.
- Present sentences using a conversational tone without exaggerated prosodic cues (Johnson, Weston and Bain 2004).

To determine the PCC value, count the total number of consonant errors and use the formula below.

1. Mark errors directly on the list of sentences for efficient scoring. Only consonants are scored, not vowels with the exception of vowel controlled r.
2. Score only the first production of a consonant if a syllable is repeated (e.g., ba-balloon). Score only the first /b/.
3. Do not score consonants if a word is unintelligible or only partially intelligible.
4. Errors include substitutions, deletions, distortions, and additions. Voicing errors are only scored for consonants in the initial position of words.
5. If /ng/ is replaced with /n/ at the end of a word, do not score it as an error. Likewise, minor sound changes due to informal speech and/or selection of sounds in unstressed syllables are not scored as errors.
6. Dialectal variations are **not** scored as errors.

Chapter Nine: Language is Literacy

Introduction

Literacy is often referred to as the ability to listen, speak, think, read, and write. The foundation for each of those skills is language. Combinations of the speech sounds of language form words, combinations of words form sentences, combinations of sentences form paragraphs and multiple paragraphs form passages, books, or conversations. So, while we may read with our eyes, the starting point for reading is speech (Seidenberg, 2017).

Humans are biologically wired to naturally acquire speech and language without the explicit teaching of each and every sound, word meaning or morpheme. Nearly half of the brain is dedicated to specific pursuits related to speech and language. On the other hand, there is no place in the brain wired specifically for reading. Instead, reading requires use of the same areas of the brain that are used for language areas with the addition of the occipital lobe for seeing what the sounds of language look like in print. In other words, we use what we've already developed through spoken language to form the networks necessary for written language. In truth, the teaching of reading is the teaching of language in the print modality as opposed to the verbal modality. However, unlike spoken language, learning to read is not at all similar to the natural process of how humans acquire speech and language. Because written language is a cognitive skill invented by man for the purpose of representing speech, the skills for reading and writing must be systematically and explicitly taught. Without this foundational understanding children often struggle to learn to read.

A. The Components of Language and Their Relationship to Literacy

Each of the components of language (phonology, morphology, syntax, semantics, and pragmatics) play a vital role in reading and writing (Wolf, Nelson, Catts, Ehren, Roth, Scott, and Staskowski, 2009). When the spoken language system does not develop appropriately, the development of the written language system is at risk. Indeed, there is a tremendous amount of evidence supporting a link between a history of spoken language problems and reading and writing difficulties in school-age children and adolescents (Burns, 2013; Nelson, 2010; Paul & Norbury, 2012; Wallach & Miller, 1988). The research supports this assertion as noted in Chapter Eight, Section F and the finding that the majority of all poor readers have an early history of spoken language deficits with 73 percent of second grade poor readers having poor phonemic awareness or spoken language problems in kindergarten (Scientific Studies of Reading, 1999).

A helpful way to make the connection between spoken and written language is to look at print through the "lens of language." Language is made up of the three broad constructs of form, content, and use. It is then further broken down into five specific components of language which are phonology, morphology, syntax, semantics, and pragmatics. Below is a detailed look at each of these components and its relationship to literacy.

<u>Phonology</u>

Phonology is the relationships among the speech sounds of any language and a phoneme is the smallest unit of sound in any language. While phonology is often thought of in terms of speech production (i.e., consonant cluster reduction, final consonant deletion, velar fronting, stopping, etc.), phonology also includes phonemic and phonological awareness. Phonological awareness is

a broad term that includes identifying and manipulating units of oral language such as words, syllables, and onsets and rimes. Children who have phonological awareness are able to identify and make rhymes, clap out syllables, as well as recognizing words with the same initial sounds like 'money' and 'mother'. While under the same umbrella of phonological awareness, phonemic awareness refers to the highest level of phonological awareness and includes the specific ability to focus on individual sounds (phonemes) in spoken words including tasks such as segmenting, adding, deleting, manipulating, and reversing phonemes.

Researchers Storch & Whitehurst (2002) identified a strong link between phonological processing and reading success. Phonological processing encompasses both receptive phonological skills and productive phonological competence (Byrnes & Wasik, 2019). When learning to read, students must understand the relationship between sounds processed and written representations of sounds. A core skill-deficit observed in segments of students identified with specific reading disabilities is the ability to analyze sound within spoken words (i.e., phonological processing skills such as phonemic awareness, phoneme discrimination, and rapid automatic naming) (McArthur & Castles, 2013; Snowling, 2000). Students who do not effectively process phonemic aspects of language are likely to have difficulty learning phonics, decoding words, reading multisyllable words, and fluently reading.

Because of the SLP's training in articulatory features for the production of phonemes (manner, place, and voicing) as well as training in the developmental continuum of phonological awareness, there is much that SLPs can offer to support reading success. Phonological awareness should be of particular importance to SLPs and children with speech sound disorders as atypical speech sound errors and distortions in preschool are predictive of weak phonological awareness skills (Preston & Edwards, 2010). This is true even when language is normal (Bird, et al., 1995; Overby, Trainin, Smit, Bernthal & Hull, 2012). This does not apply only to students with significant impairments, but also those with less severe impairments. As noted in Chapter Three, Section B, if more than ten percent of the child's speech has atypical errors, the child is likely to have deficits in phonological awareness, reading, and spelling (Preston & Hull, 2012). Furthermore, phonological processing (word reading and phonological working memory) skills have been shown to be weak *even once the speech sound disorder is remediated (*Farquharson, 2015; Raitano, Tunick, Pennington, Boada, & Shriberg, 2004).

A child's level of phonemic awareness when entering school is considered to be one of the single strongest predictors of success or failure in learning to read (Adams, 1990; Stanovich, 1986). Other studies reveal that phonological awareness has been shown to be more closely related to success in reading than intelligence **(**Torgesen, 1997) and is the strongest single predictor of word reading difficulties (e.g., Pennington, et al. 2012; Snowling, 2000). Therefore, close attention to phonological awareness should begin early. This is especially true for preschoolers with speech sound disorders who are also at increased risk for deficits with phonological awareness (Anthony et al., 2011; Bird, Bishop, & Freeman, 1995; Foy & Mann, 2011; Lewis et al., 2011; Lewis & Freebairn, 1992; Peterson, Pennington, Shriberg, & Boada, 2009; Raitano, Pennington, Tunick, Boada, & Shriberg, 2004; Rvachew, Ohberg, Grawberg, & Heyding, 2003) as mentioned in the introduction to Chapter Seven).

Morphology

Morphology is related to the smallest units of meaning in language. A morpheme is the smallest unit of meaning in a language. English is a morphophonemic language meaning that the English language is made up of sounds and meaning. There is resounding consensus that morphology is critical to literacy development (Carlisle & Kearns, 2017; Castles, Rastle, & Nation, 2018; Duncan, 2018; Kuo & Anderson, 2006). Research demonstrates the importance of strong morphological instruction as early as first and second grade (Apel & Laurence, 2011). However, it has traditionally been the focus in later elementary or perhaps middle and high school years. This is despite the fact that approximately 80 percent of English words contain multiple morphemes (Anglin, 1993; Hiebert, Goodwin, & Cervetti, 2018) and morphologically complex words represent the bulk of unfamiliar words that children encounter in text (White, Power, & White, 1989).

Morphology contributes to literacy by enabling students to decode and read longer words more accurately, understand elements of the writing system, and process elements of language analytically (Nagy, Berninger, Abbott, Vaughan, & Vermeulen, 2003). Additionally, understanding that morphemes have meaning is foundational for deriving word meaning and learning vocabulary. Furthermore, how a word is heard or said does not necessarily correlate with how it is represented in print. For example, consider the final sound in the word "picks" and the final sound in the word "fix." The final sound of /s/ is the same, but the spelling is different and so is the meaning. The same is true for "made - played," "tense - tents," and many other examples in the English language. When it comes to morphology and its application to literacy, there is a need for direct, systematic, and explicit instruction to assist students with understanding not only the sounds (phonemes) and how they are represented by letters (graphemes) or letter combinations (phonics), but more importantly how morphemes impact meaning. Indeed, by the age of ten years of age, knowledge about the structure of words is a better predictor of decoding ability than phonological awareness (Mann & Singson, 2003) likely because mastery of phonological awareness should be well established by that time.

Syntax

Syntax refers to the rules of word order and word combinations in order to form phrases and sentences in language. Syntax, sometimes also referred to as sentence structure, in the English language ranges from simple (e.g., I see mom) to highly complex structures involving clauses, modifiers, conjunctions, and other grammatic types and combining components of language to express thought requires syntactic understanding. Creating syntactically appropriate sentences is a process of combining morphemes into thoughts or sentences within specific communicative structures. The National Early Literacy Panel (2008) identified the ability to produce and comprehend grammar (including morphology and syntax) as having a substantial impact on later literacy skills. Students access and have the opportunity to increase their syntactic knowledge throughout the school day as they listen to instruction, answer questions, interact with peers, read texts, produce written artifacts associated with learning and receive direct instruction in morphological and syntactic features of the English language. This is important because the ability to process complex forms of language is particularly important for academic learning as students are exposed to abstract words, complex sentences, and sophisticated discussions that permeate classroom instruction and conversation (LaRue & Kelly, 2015). Without strong

grammatical knowledge, students cannot become good readers or writers (Byrnes & Wasik, 2019).

There are several complex syntactic features that may contribute to reading comprehension difficulties. They include the overall length of the sentence, distance, or number of words between the subject of the sentence and the verb, the number of clauses, complex linking devices, alternating passive vs. active voice, as well as pronoun referents. In fact, the level of a text's syntax is one predictor of a text's comprehensibility (Snow et al., 2005). As students read more advanced texts, the complexity of the syntax within the texts advances beyond what is typically used in spoken syntax. Knowledge and instruction in the area of syntax has important implications for reading instruction and reading success. Readability formulas, such as Lexile levels, are based in part on the length and grammatical complexity of the sentences in the text. When students struggle with syntax, they struggle with reading higher levels and with reading comprehension. In 2011 and 2012, student SAT scores revealed that only 43 percent reached a proficiency level for reading comprehension. The clearest differentiator was the students' ability to answer questions associated with texts that had complex syntactical structures as opposed to applying critical thinking skills.

When students learn to use more complex sentences in oral and written language, their ability to comprehend what they read should increase as well. There are, however, several reasons why difficulties with syntax may impact reading comprehension. If the student is not familiar with the formally constructed sentence structures and grammar commonly found in printed texts, they may struggle to read the text with appropriate prosody. Challenging, excessively descriptive, or lengthy syntax in text may result in difficulties making sense of "who is doing what" in addition to potential negative consequences on working memory. Of particular importance are the potential challenges for students from culturally or linguistically diverse backgrounds due to differences between syntactic rules. For example, while both English and Spanish follow roughly the same sentence order of subject-verb-object, in the English language the adjective is often placed before the noun (i.e., "He bought a red apple."), but in Spanish adjectives are often placed after the noun.

Semantics

Semantics is the aspect of language that relates to the meanings of words, phrases, and sentences, and appropriate word usage and may commonly be referred to as vocabulary. Vocabulary has four distinctly different types and each has a different purpose and vary in terms of size.

- Listening vocabulary is the largest as this type of vocabulary includes many words that are heard even if they are not understood.
- Reading vocabulary is the second largest. There are many words within written texts that are understood, but not likely to be spoken in everyday language.
- Speaking vocabulary is the third largest with roughly 6,000-10,000 words that are used over and over again throughout spoken language.
- Writing vocabulary is the smallest. This is because the writing task itself is challenging when considering the complexity of having to think of the right word when writing, while also considering punctuation, spelling, and the physical task of writing.

In building vocabulary, children associate words with specific concepts. To learn new concepts, children identify salient features related to concepts and attach meaning to words used to express specific concepts. For example, children learn that dogs have four legs, ears, tails, and fur. When they understand what a dog is, they can then understand what people refer to when they talk about dogs as well as understand what a dog is when they read about dogs. The same could be said about isosceles triangles, geysers, patriots, and peninsulas.

As mentioned in Chapter Seven, receptive vocabulary skills measured during preschool are a strong predictor of reading in second grade (Senechal & LeFevre, 2002). Additionally, students who enter first grade with larger spoken vocabularies score the highest on reading achievement tests at the end of first grade (Byrnes & Wasik, 2019). Students with larger vocabularies have more robust reading comprehension than students with more limited word knowledge; vocabulary is therefore essential for reading success (Nippold, 2016). If students have limited vocabularies, it is almost impossible for them to become proficient readers.

Vocabulary develops with grammatical understanding with vocabulary and grammatical development being reciprocal processes. As students acquire vocabulary, they understand communications from others and then communicate thought using grammatical structures within contextualized conversations. Conversely, as children listen to others who express thought using conventional grammatical structures, they learn new words from the contexts of the interactions, are exposed to ideas associated with the vocabulary used in conversation, and therefore increase in language development. Students need both well-developed vocabularies and strong foundations in grammar to process classroom discourse and written texts (Carter & Hopkins, 2019).

There is also a reciprocal relationship between reading, phonology, and vocabulary. This is critical to be aware of in an educational setting. When a beginning reader is sounding out an unfamiliar word, they must match the pronunciation of the word they are decoding with a word they have been exposed to through speaking and listening. If the decoded word is recognized as sounding familiar via phonological long term memory, the reader is more likely to keep reading. If the word is not one that sounds familiar, then comprehension is negatively impacted. However, the more a student reads, the more their vocabulary grows. By the end of the elementary school years, the average student will have gained 9,000 root words from text which equates to approximately two new words per day or ten words per week (Beimiller, 2005). This includes words students run across in English language arts, social studies, science and math. In fact, studies have demonstrated that vocabulary has been a significant factor as it relates to children achieving a passing grade in math (Nagy, W.E. & Herman, P.A., 1987).

SLPs often provide specially designed instruction that targets the development of vocabulary along the three tiers of vocabulary as well as instruction in multiple meaning words, word association, categorization, semantic features and semantic relationships. A solid depth and breadth of vocabulary knowledge such as how words relate to one another as opposed to simply knowing a word's definition provides a strong support for comprehension. Semantic features support the development of visual imagery which significantly supports reading comprehension. This is because the understanding of a story requires the reader to form a mental representation of the story while reading (e.g., Kintsch, 1988; Zwaan and Radvansky, 1998). However, students

who are not proficient at making mental or visual images while reading have been found to show poor reading performance (Bell, 1991; Snow, 2002; Hibbing and Rankin-Erickson, 2003; De Koning and Van der Schoot, 2013).

Pragmatics

One definition of pragmatics is the ability to adjust and adapt language functions to reflect the situation, audience, and interaction type and to use appropriate registers given specific settings (e.g., formal vs. information situations). Pragmatics is generally considered to relate to what to say, how to say and when to say it. However, social language can include critical skills necessary for literacy as well. In spoken language, pragmatic language includes, but is not limited to, an understanding of the social aspects of spoken language, including conversational and the production of cohesive and relevant messages during conversations. Written language also encompasses the appropriate use of language including understanding point-of-view, figurative language, separating important from unimportant details, making inferences and predictions as well as conveying point-of-view, providing essential details and specific referents. Across academic content areas, communication styles vary by subject. For example, scientific discourse generally focuses on research methodology and the use of formal, structured language, compared to literary discourse that utilizes metaphors and other figurative expressions (Herrmann, 2015). Therefore, students who do not acquire the ability to adapt language according to context, purpose, and academic discipline may have difficulty learning from interactive classroom discussions.

Pragmatic language is also sometimes referred to as social communication. The ASHA breaks down the components of social communication to include social interaction, social cognition, verbal communication, nonverbal communication, and language processing (ASHA practice portal, Grice, 1975; Nelson, 1978; and Timler, Olswang, & Coggins, 2005). Within each of these components, there are direct connections to literacy. Self-monitoring, sometimes also referred to as metacognition, is critical to being able to think about your own thinking while reading. Weakness in central coherence and the ability to extract meaning from many details is likely to make comprehension of text and written language output a challenge. Also consider that body language, gestures and facial expressions are often important descriptions within a text and struggling to understand their meaning negatively impacts reading comprehension. Even punctuation has a connection to pragmatic language. Students with language learning disabilities sometimes have difficulty using correct punctuation not necessarily because of underdeveloped knowledge of punctuation rules and marks, but because they lack a deep understanding of how punctuation relates to communicative intentions (Lippincott & Williams, 2011).

While reading is not commonly thought of as being a "social" task since it is performed alone, in reality, reading is a type of "pragmatics in print" as the reader interacts with the characters, the author, the purpose and even the arrangement or design of a given text. In order to understand the perspective of a character the reader must possess the ability to "pre-suppose" and make inferences regarding the actions, beliefs, and intentions of others (Carruthers & Smith, 1996; McTear & Conti-Ramsden, 1991). Presupposition and perspective taking are aspects of theory of mind which is an important social-cognitive skill that involves the ability to think about mental states, both your own and those of others. The degree to which a student presupposes a character's beliefs, knowledge and wants impacts their understanding of the passage. When

presupposition and perspective taking are weak, there is a subsequent breakdown in comprehension. The student may have difficulty accurately comprehending the passage and will likely struggle to answer inference, prediction and other higher order thinking types of questions. In the case of a student's written composition, if the student presupposes too little or too much shared knowledge between themselves and the reader of the composition, the reader may be confused and omit critical details in the passage, providing too many details that do not follow a logical sequence or there may be a lack of cohesive ties rendering the composition difficult to follow. Often, students with language and learning disabilities tend to either presuppose too much or too little shared knowledge between themselves and their readers.

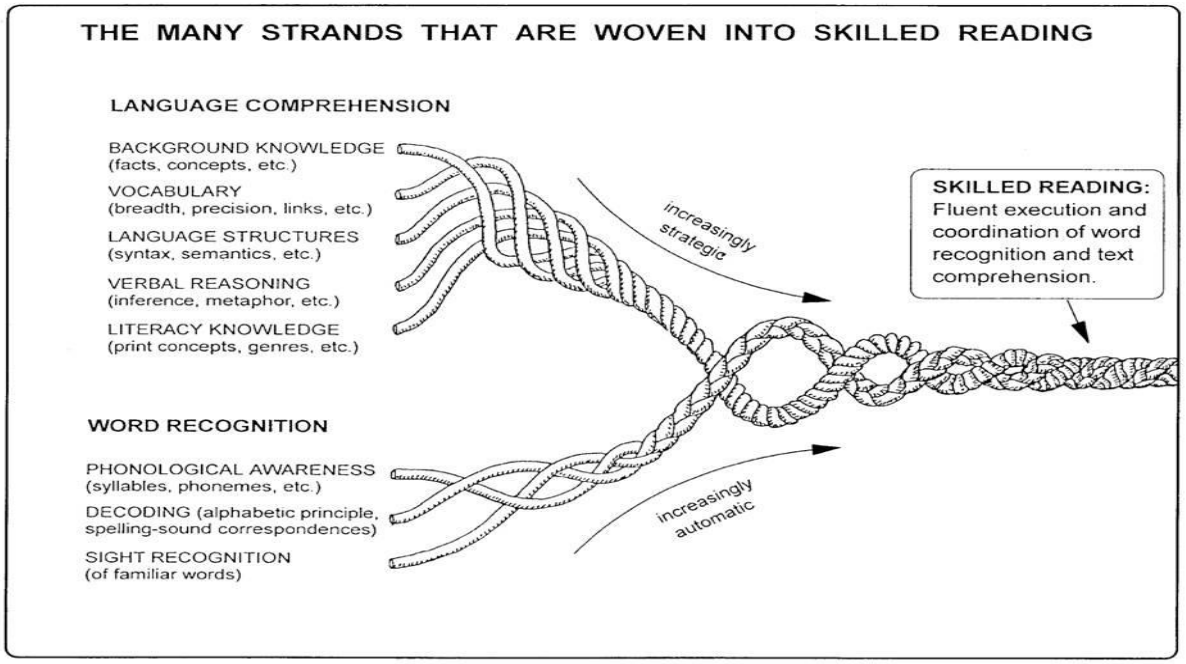
Figurative language may fall within the domain of vocabulary as it relates to the meaning of words or a group of words. However, figurative language poses a significant difficulty to students with pragmatic language difficulties. Comprehension and use of figurative language are important for educational success because nearly two thirds of spoken English is figurative in nature (Arnold & Hornett, 1990). Moreover, approximately a third of teachers' utterances contain multiple meaning words or idiomatic expressions and about 7 percent of reading materials used in elementary schools contains idioms (Lazar, Warr-Leeper, Beel-Nicholson, & Johnson, 1989). While figurative language is used by authors to impart humor, create visual imagery or illustrate complex relationships between ideas, people, and things in novel ways, students who have literal interpretations for abstract ideas are often left confused.

B. The Evidence-Base for Language and Literacy

When looking at literacy under the lens of language, it is easy to see how the unique training and expertise of the SLP lends itself well to collaboration within school teams. It is also apparent how language is a critical part of the two widely accepted frameworks for how reading comprehension develops, the first of which being The Simple View of Reading (Gough & Tunmer, 1986). This is the only scientifically supported developmental reading model (Savage, 2021). Like Einstein's well-known $E = MC^2$ that describes energy, The Simple View of Reading is a well-researched explanation of how skilled reading comprehension develops. It states that reading comprehension is the product of decoding and language comprehension. In other words, for reading comprehension to occur, both decoding and language comprehension must be fully developed.

Subsequent research continues to build upon and refine findings of the Simple View of Reading. This includes Scarborough's Reading Rope (2001) which compares skilled reading to the many strands of a rope. Each strand represents a separate skill that when combined with the others, creates a strong, proficient reader. With instruction and practice, the strands weave together in order to produce skilled reading. However, "weakness in any strand can disrupt reading and weakness in several strands can disrupt reading" (Scarborough, 2018). Using the SLP's diagnostic prescriptive approach and knowledge of literacy through the language lens can be of tremendous benefit to MTSS, IEP, and other problem-solving teams when analyzing student data.

Illustration 2. Scarborough's Reading Rope



C. The Role of the SLP in Literacy

The rationale for the critical and direct role of the SLP in the development of literacy for children and adolescents is based on established connections between spoken and written language, including that spoken language provides the foundation for the development of reading and writing; spoken and written language have a reciprocal relationship, such that each builds on the other resulting in general language and literacy competence, starting early and continuing through childhood into adulthood; children with spoken language problems frequently have difficulty learning to read and write, and children with reading and writing problems frequently have difficulty with spoken language and instruction in spoken language can result in growth in written language, and instruction in written language can result in growth in spoken language (ASHA, 2001).

In ASHA's "Position Statement: Roles and Responsibilities of Speech-Language Pathologists with Respect to Reading and Writing in Children and Adolescents" it is stated that "SLPs have unique knowledge about the subsystems of language (i.e., phonology, morphology, syntax, semantics, and pragmatics as described earlier in this chapter) as they relate to spoken and written language and knowledge of the metalinguistic skills required for reading and writing (e.g., phonological, semantic, orthographic, and morphological awareness)." Sharing this knowledge is beneficial to educators and ultimately to students. The ASHA adds that "The role of the SLP in literacy intervention may vary by setting and availability of other professionals (e.g., reading teacher and resource personnel) who also provide written language intervention. Regardless of the SLP's specific role, it is important that intervention be collaborative." In other words, SLPs should work collaboratively to support the development of the language foundations for reading and writing, but not necessarily teach core content or curriculum.

D. Language, Literacy, and Students from Culturally and Linguistically Diverse Backgrounds

Cultural and Linguistic Diversity

Learning more than one language or dialect, including General American English, may provide learning advantages for preschool and school-age students. Research indicates that early bilingualism is associated with executive function ability, working memory, and improved language skills among Pre-K students (Espinosa, 2015) and balanced bilingualism has long-term academic, linguistic, cognitive, social, cultural, and economic benefits (Espinosa, 2015; Bybee, Henderson, & Hinojosa, 2014). However, students who have limited experience with rich linguistic interactions may have fewer opportunities to engage in the higher-order exchanges valued in school (New York University, 2017). Various factors such as equity, socioeconomic status, teacher shortages, academic support in languages spoken, and access to high-quality education may diminish learning opportunities among English learners. Academic indicators for students from culturally and linguistically diverse backgrounds suggest that there is a significant need to improve instruction for these populations of students who historically lag behind peers in graduation rates and other indexes of academic proficiency. As a result, they should receive high-quality input in each language and/or dialect spoken and should be encouraged to build on the skills they have in their primary language and/or dialect with the goal of becoming fully biliterate (Rios & Castillon, 2018).

Poverty

Children's early exposure to a rich set of language practices is critical for their later reading success (Neuman, Kaefer, & Pinkham, 2018). Socioeconomic factors may influence the opportunity to acquire oral language skills during the preschool years. Researchers (Colker, 2014; Hart & Risley, 2003; Snow, 2013) indicate that during preschool years, children living in poverty may be exposed to a lower quantity and quality of language learning environments. Additionally, when students in poverty attend school, the socioeconomic status of their school may impact language learning if they are not exposed to language-rich environments. New York University reported that students living in neighborhoods with concentrated poverty were less likely to have complex language building opportunities both at home and at school (New York University, 2017) and students who have not experienced high-quality language environments are not as well prepared to learn to read when they enter school (Whorral & Cabell, 2016).

Multilingual learners in the U.S. experience disproportionately high levels of poverty and often attend poorly resourced, low-performing schools (Capps et al., 2005) and when children from low-income families are concentrated in the same schools it can be difficult to identify the children with reading disabilities because so many of the kids are struggling. In addition, children of color are disproportionately low income and poor, with 61 percent of Black children living in low-income families and 34 percent living in poverty compared to 28 percent and 12 percent of White children, respectively and the oral language differences that are common in African American communities are related to poverty and to spoken dialect variation (Terry, Gatlin, & Johnson, 2018).

There is indeed a moderate and inverse relation between the amount or frequency of spoken dialect production (dialect density) and reading and writing outcomes (Gatlin & Wanzek, 2015). In other words, the more dialect a student uses in his or her spoken or written language, the lower

his or her literacy scores tend to be. In the classroom, this may be explained through the example of a teacher writing the word “past” on the board. If the teacher sounds the word out letter by letter, then for students who speak GAE, the phoneme grapheme correspondence is clear with a clear understanding that four sounds are represented by four letters. However, for speakers of a language or dialect where final consonants or final consonant blends do not occur, there is opportunity for confusion. This could include homophone confusion as in the student’s native language or dialect the word would be pronounced as “pass”. Therefore, in order for them to process the word, they may first have to sort through intended meaning and then the phoneme-grapheme correspondences. This illustrates that there is a need to acknowledge and understand that when children come to school speaking something other than a GAE dialect, they are in fact learning a learning a new oral language variety in addition to learning how to map that language variety onto print. However, for those students who came to school already speaking GAE, they will only have to learn the mapping of letters and sounds.

This may also impact reading fluency, as a student aware of both the dialectal pronunciations and the GAE pronunciation of words such as “past” will need to produce one and suppress the other. As a result, the student may read the word correctly, but slowly which may give the appearance of poor reading fluency. In addition, the student may also slow down their reading rate in order to improve the grammatical accuracy of their oral reading. However, as the complexity of reading passages increases, students often sacrifice reading accuracy in an effort to manage the lexical and syntactic complexity of passages.

Interestingly, data often reveals that the academic gap is relatively small in kindergarten and what little gap there may be can often be explained by controlling for socioeconomic status. In other words, most kindergarteners start out at relatively the same place. However, by first grade, the gap between students from culturally and linguistically diverse backgrounds widens considerably. To offset this, incorporating explicit training in code meshing is helpful. At one elementary school in Michigan, teachers implemented a bilingual curriculum for the majority-black student body and saw a 75 percent increase in the number of students who passed state reading tests.

However, as the data reveals, 52 percent of Black students, 50 percent of American Indian students, and 45 percent of Hispanic kids are reading at Below Basic levels in reading compared to only 23 percent of White students (NAEP, 2019). As such, children of color and multilingual learners are disproportionately poor and disproportionally struggling. The reason this is important to be aware of is because General American English (GAE) is the language and dialect of academic instruction, but students who speak a dialect different from GAE are expected to use both GAE and their dialect. In other words, these students have more that is necessary to learn than students who are not from culturally and linguistically diverse backgrounds which adds a substantial cognitive load to learning. To further illustrate, when students come to school that have a language system that is similar to what they read in books there is a nearly seamless transition from oral to written language. However, for students who have a high level of dialect density, they will need more time, more direct instruction, and more help to be successful in reading.

E. Recommendations for SLPs in Schools to Support Literacy

Identify students at-risk for literacy difficulties early.
Work closely with teachers to analyze classroom data and provide targeted interventions in the classroom and/or other intervention programs. In one important study, (Catts, Fey, Zhang, & Tomblin, 2001) five kindergarten variables were identified that predicted reading outcome in second grade: letter identification abilities, sentence imitation abilities, phonological awareness skills, rapid naming abilities, and mother's education level. While no one deficit alone indicates a potential problem, students who exhibit several of these descriptors and demonstrate limited mastery of the related skills by the end of kindergarten or the beginning of first grade despite having received targeted interventions should be referred for an in-depth psychoeducational evaluation, including a complete assessment of speech-language abilities.

Work with school student assistance or problem-solving teams.
Help the problem-solving team to pinpoint what information may be missing from the data. For example, some universal screeners such as DIBELS, Aimsweb, and easy CBM discontinue phonemic awareness tasks at the end of first grade, but phonemic awareness skills continue to develop in typical readers until 3rd and 4th grade. These advanced phonemic awareness skills are critical and have a tremendous impact on the development of reading fluency and comprehension. In addition, the SLP may assist teams with understanding the importance of not relying on the overall or composite score alone. For some tests, such as the CTOPP, it is important to look carefully at each of the subtests in order to pinpoint areas of difficulty that may be impacting reading success (see Chapter 9, Section A).

Collaborate with school psychologists.
When students are suspected of difficulties with reading and/or writing collaborate with the school psychologist to analyze data. While the school psychologist's assessment tools are designed for a different purpose than the SLP's assessment tools, the combination of assessments can yield a great deal of data which should be used in the development of an effective intervention plan.

Include phonological awareness as part of the speech-language evaluation.
Phonological awareness probes may also be part of progress monitoring data collection to ensure progress is being made along the developmental continuum. If phonological awareness deficits are discovered, it is appropriate to write IEP goals to address and improve these skills. While phonological awareness is not a stand-alone area of eligibility (such as language, voice, fluency, or articulation) it is critical foundational skill to educational success.

Consult with teachers and share research and evidence-based strategies.
Information regarding phonological and morphological awareness, syntax and vocabulary instruction may be particularly helpful to share with teachers. This may include information regarding the three tiers of vocabulary, the differences between the types of vocabulary (speaking, listening, reading and writing), how to teach vocabulary using semantic features, the continuum of word knowledge, and the connections between vocabulary, phonological awareness, and decoding.

Include written language samples as part of evaluation and ongoing assessment data collection.
Use written language samples to identify what types of language-based errors are being made in the student's writing. This is helpful information for initial eligibility as well as assessments for annual IEPs to include within the PLAAFP.

Explain educational impact of a speech-language impairment as it relates to literacy.
Explain the connection between language and literacy to teachers, parent/caregiver, and other IEP team members. For example, if the student is working on correctly articulating /r/ explaining how difficulty producing the /r/ sound may impact the student's understanding of words that he reads or spells that have the /r/ sound in them.

Coordinate IEP goals and/or instructional targets.
This will maximize the intensity and frequency of instruction and help the student progress effectively and efficiently. For example, if the school is using a specific phonics scope and sequence, be sure each team member is aware of the phonics pattern for the week so that each team member can incorporate those words within their instruction while addressing the student's unique IEP goals.

Embrace literacy within the broader speech-language treatment program.
For example, asking teachers for weekly spelling lists, vocabulary lists, or extra copies of social studies textbooks. SLPs may use the academic curriculum as a source of stimulus materials to target vocabulary, syntax, morphology, articulation, or phonological awareness goals. This practice will give students more exposure to the general curriculum and enhance their ability to generalize skills.

Advocate for evidence-based tier one instruction and tier two and tier three interventions.
The MTSS triangle and the research behind it state that eighty percent of students should be proficient readers with general education (tier one instruction), another fifteen percent will need additional tier two interventions, and a remaining five percent will need intensive tier three intervention and supports. SLPs are valuable members of their school's data team when able to share knowledge of evidence-based practices and how to read research to determine if there is valid, reliable, peer reviewed research without fatal flaws for the programs and curriculums being used in order to ensure that the programs and approaches being used have data to demonstrate that students should be making improvement. In addition, the SLP's diagnostic-prescriptive approach is helpful to ensure that interventions are targeting what the student specifically needs to learn. Finally, SLPs can share their knowledge of the IDEA requirements to support intervention practices so as to not delay access to an evaluation if a disability is suspected.

Chapter Ten: Autism Spectrum Disorders and Pragmatic Language

Introduction

The word "autism" means a developmental disability significantly affecting verbal and non-verbal communication and social interaction. The classic form of autism involves a triad of impairments – in social interaction, in communication and the use of language, and in limited imagination as reflected in restricted, repetitive and stereotyped patterns of behavior and activities. Although autism is defined by a certain set of behaviors, children and adults can exhibit any combination of the behaviors in any degree of severity.

If a student has a medical diagnosis of autism spectrum disorders, they must also be found eligible for special education and related services using South Carolina's eligibility criteria before an IEP is developed. Students with poor social skills are sometimes suspected of having ASD. However, poor social skills may be exhibited for a variety of reasons which may not be related to an underlying pragmatic language deficit. For example, a student who does not attend to the social cues of others may miss these cues and respond inappropriately. This would not be considered as having a lack of knowledge about how to use language appropriately, but rather inattention to social cues. Similarly, a student who knows what to do in a social situation, but purposefully chooses to respond in an inappropriate manner would also not be considered as having a lack of knowledge about how to use language appropriately. On the other hand, a student engaged in a social encounter who lacks the knowledge for how to initiate or respond would be considered as having a lack of knowledge about how to use language appropriately. This is why evaluations of pragmatic language knowledge as well as understanding key terminology are of critical importance to accurate classification and treatment planning.

A. SLPs as Part of the Comprehensive Assessment Team

According to the IDEA, when evaluating each child with a disability under §§300.304 through 300.306, the evaluation must be sufficiently comprehensive to identify all of the child's special education and related services needs, whether or not commonly linked to the disability category in which the child has been classified. Since SLPs are often the first professionals to recognize the communication delays, social limitations, and repetitive behaviors that characterize autism (ASHA, 2006) and the prominence of communication and language problems in individuals with autism underscores there is a significant role that SLPs should play in the assessment and treatment of pragmatic language problems (Wetherby, Prizant, & Hutchinson, 1998). ASHA has issued policy statements that recognize the critical role of SLPs in the diagnostic process. ASHA's position statement notes, "Speech-language pathologists who acquire and maintain the necessary knowledge and skills can diagnose ASD, typically as part of a diagnostic team…" (ASHA Practice Policy, 2006). ASHA has several documents available on their website for SLPs related to autism that discuss the SLP's roles, responsibilities, principles, and required knowledge and skills.

According to South Carolina 2022 Standards of Evaluation and Eligibility Determination (SEED) document, when a comprehensive evaluation is being conducted and autism evaluations are part of the assessment battery, "a current communication evaluation must be conducted by a speech language therapist/pathologist. This evaluation must include assessment in the areas of pragmatic, and social/functional communication skills; however, it may also

include receptive and expressive language skills." This is important because pragmatic deficits are found in a variety of disabilities; not just ASD (Kowalski, 2019). Therefore, data gathered from the SLP in the area of pragmatics can help the team determine whether ASD is the most appropriate disability classification.

B. Key Terms

Critical to determining the presence or absence of autism is understanding key terms such as social skills, social cognition, social reciprocity, and communicative competence and how these terms relate to the area of language referred to as pragmatics.

Pragmatics

Pragmatics is defined as "a system of rules governing appropriate use of language for the communicative context and includes turn-taking, topic management, eye contact and social interaction (Griffith and Ripich, 1999)." Other terms that are frequently used include "social skills" and "social communication." However, these terms are not interchangeable.

Social Skills

A social skill refers to the ability to complete a social task with a pre-determined result. Teaching a social skill means that the student may have learned a skill that, when observed in isolation, may appear to be functional and meaningful. However, the student may not be able to understand why the skill is important outside of the pre-determined or isolated context.

Social Cognition

Social cognition, our understanding of why people respond or act in different situations and our ability to predict their next actions (Coggins et al., 2003), relies on a number of processes such as joint attention, theory of mind, and emotion recognition (Dodd, J., 2010). Social cognition follows a developmental sequence of acquisition with more complex skills building upon earlier established pre-requisite skills (e.g., joint attention, one's ability to alert a communicative partner to an item or event of particular interest utilizing nonverbal means such as pointing or directed eye gaze). The challenges experienced with emergent and basic communicators stem from the foundational skills associated with joint attention, which is not only correlated with the development of language skills (Carpenter & Tamasello, 2000) but has proven predictive of a later ASD diagnosis (Dawson et al., 2004). Joint attention relies on an individual's ability to consider the perspective of their communicative partner regarding a shared event or objects (Carpenter & Tamasello) and predicts the development of social cognition (Mundy & Newell, 2007).

Theory of mind is a critical element of social cognition and is sometimes referred to as perspective taking. The ability to recognize and interpret the perspectives of others is further influenced by our ability to recognize and interpret facial expressions and emotions. Researchers have demonstrated that children with ASD routinely experience challenges perceiving the emotions of others (Hobson, Ouston, & Lee, 1988). This may be due to difficulties with perspective taking as well as the difficulty with facial expressions and other nonverbal language skills. It is important to point out, however, that students with ASD are capable of great depths of emotion and empathy, the difficulty is more likely related to being able to identify emotions in

themselves and others as well as having the problem-solving language to express it or provide support to others. Appendix S outlines the order of theory of mind development.

Communicative Competence

Coggins and colleagues (2007) describe social communication competence as the ability to use "language in interpersonally appropriate ways to successfully influence people and interpret events" and the emergence of joint attention abilities in children as young as nine months of age is a key landmark in the development of communicative competence (M. Carpenter et al., 1998; Saxon, Frick, & Colombo,1997). According to Coggins and colleagues, this competence is dependent on the integration of language, social cognition, and high order executive skills and an individual's social communicative behaviors are a direct reflection of this integration. Poor communicative competence is a core feature of ASD and may include delayed or disordered speech, poor integration of nonverbal behaviors in attempts to communicate (such as appropriate use of coordinated eye gaze, pairing gestures with sounds, using an appropriate voice tone, and maintaining an appropriate proximity to others when communicating), as well as the ability to communicate for a range of social purposes (such as maintaining a conversation, asking for assistance, sharing observations and information).

Communicative competence also refers to the ability to have a broader level of understanding such that the student can understand why certain skills are important and how to demonstrate them across broader contexts. For example, consider the skill of ordering food. In one type of restaurant (e.g., Subway, Chipotle, etc.) a person provides only a part of their order at a time. In another type of restaurant (e.g., Cracker Barrel, TGIFridays, etc.) a person must wait for the staff to provide them with a table, ask for drink orders first and then ask for the meal request in its entirety. It is the same *skill* of ordering food, but the different contexts have different expectations. Therefore, communicative competence refers to the knowledge that different contexts or communicative partners require different aspects of communication. Communicative competence is the knowledge of why these differences are important in order to be able to apply them. Therefore, during an evaluation, it is not enough to determine whether a social skill was appropriate or inappropriate (i.e., not accepting other's points of view, acting out behaviors, relationship with peers, etc.).

Social Reciprocity

Social reciprocity relates to the active role communicative partners engage in with a common, unspoken goal of successful interaction (i.e., the spontaneous ability to engage in back-and-forth social interactions with a variety of people in a variety of situations). Students who demonstrate poor social reciprocity may appear as "aloof" or "in their own world." They may avoid interacting with unfamiliar people or they may be interested but may not know how to start or maintain a social interaction. Additionally, there are some students who may be socially active and engaged in the flow of interactions, but they may be perceived by their social communication partners to have communication that comes across as "one-sided," "off," or even, at times, "rude." For students with poor social reciprocity, interacting with adults may be easier than same age peers.

Restricted, Repetitive Patterns of Behavior, Interests or Activities

Another area that is critical to the diagnosis of ASD is "restricted, repetitive patterns of behavior, interests, or activities". This must be manifested by all of the following: "stereotyped or repetitive motor movements, use of objects, or speech; highly restricted, fixated interests that are abnormal in intensity or focus; and insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior". The SLP may support the team in an examination of what are typical vs. atypical interests, appropriate vs. inappropriate behaviors, and repetitive vs. non-repetitive behaviors by taking context into consideration. As it relates to social communication and assessment of social communication it is less important to know if a certain behavior *is* appropriate than *when* a certain behavior is appropriate and the only thing that determines that is context. For example, a highly specific interest in a particular video game may seem inappropriate or atypical unless it is considered in the context of all seven-year-old boys (which is a typical interest of many boys that age). On the other hand, in highly specific interest in manhole covers would be considered an atypical interest for a seven-year-old boy. In terms of stereotypical language, it would be appropriate for a young girl to look in her desk and say, "I've got gadgets and gizmos a plenty" (when referring to desk full of odd treasures and trash using this quote from "The Little Mermaid"). However, repeating a phrase repeatedly such as "That's all folks" from the Looney Tunes cartoons in the context of any and all activities whether beginning, ending or participating in an ongoing task would be inappropriate.

As it relates to repetitive or stereotyped behaviors, hair twirling is a repetitive though common and normal behavior that does not have an impact on activities of daily living. In fact, hair twirling, hand flapping, jumping, shaking a leg up and down quickly, chewing on a pen/pencil and chewing on a shirt collar or other item are always to regulate the sensory system and one way is not better or more appropriate than another though adaptations can be made if the sensory regulating tool is resulting in harm. Sensory regulation is critical to self-regulation, and it is difficult to access the executive function system until and unless the sensory system is regulated. When humans are distracted by how their body feels (whether that be from a scratchy tag or feelings of being overwhelmed by environmental stimuli) it will be challenging for learning to occur and humans find different ways to accommodate their sensory needs (whether its changing shirts to one without an itchy tag, chewing gum, wearing ear plugs, rocking, or pacing). That said, a repetitive behavior such as a constant need to line up items or look at them in a certain way would likely impact daily functioning. In terms of resistance to environmental change, resistance to change, or general worries this occurs along a continuum depending on the age of the student. It is typical for children aged five to seven years to be fearful of doctors, to be shy in front of new, unfamiliar adults (including evaluators), or to be scared of loud noises. However, it would be atypical to resist or significantly struggle with a slight change to a routine schedule such as switching from going to art one day instead of library.

C. Increasing Rates of Autism Spectrum Disorder

The rates of Autism have increased significantly. According to the Centers for Disease Control (2014), across the United States one in 59 children had a medical diagnosis of autism spectrum disorder by the age of 8 (2014). By the year 2020, this number has increased to one in 44 (CDC, 2020). In the school setting, according to the Office of Special Education Programs, U. S. Department of Education, during the 2000-2001 school year, the number of children aged three

to twenty-one receiving SPED for Autism was 93,000. However, for the school year 2019-2020, it increased to 762,000.

In order to prevent misdiagnosis, which may be as high as fifteen to twenty percent according to Dr. Barry Prizant, PhD (Autism Quarterly, 2012), the team should keep in mind that the term ASD "does not apply if the child's educational performance is adversely affected primarily because the child has an emotional disability." In addition, as it relates to preschoolers suspected of having ASD, a 2008 Yale Child Study Center report, notes that "toddlers with delayed language development are almost identical to their autism spectrum disordered counterparts in their use of eye contact to gauge social interaction" which may also contribute to misdiagnosis.

The evaluation team should also consider current research into obstacles being put in the way of healthy brain development and the opportunity to develop communicative competence. In a 2021 research study, it was revealed that there is a significant association between the daily hours spent on devices and scores on the Social Communication Questionnaire above fifteen which suggests a deficit in social skill development and autism spectrum disorder-like symptoms (Alrahli, 2021). Another 2021 study found that longer screen time was positively correlated with scores on the Childhood Autism Rating Scale (CARS) (Dong et al., 2021). This is not to imply that excessive exposure to screens causes ASD, but rather disproportionate exposure to screens during critical periods of development can negatively impact the growth of social communication, social-emotional skills, and behaviors that are like behaviors frequently seen in children with ASD. In other words, the more a child spends on screens, the less time they spend in play, the less time they spend interacting with others, and the less time for social interactions across a variety of conversational partners and contexts which results in poor development of social behaviors and more obvious autism-like symptoms.

Brain Development: Myelin and Dopamine

Of particular importance, above and beyond language development and social communication, are impacts to specific areas of the brain that are critical to learning. The brain develops rapidly in the early stages after birth and is influenced by the developmental environment (Wolff et al., 2017). The Dong (2021) study concluded that long-term screen time can impact symptoms of ASD and is an adverse environmental factor. One of the specific areas of brain development impacted is myelin. Myelin is what gives the brain's white matter its white coloring due to the relatively high lipid fat content of the myelin protein. It is a fatty coating that forms a sheath around synapses in the brain. Just as the plastic coating on a power cord forms a protective coating around the myriad of wires in a power cord; the myelin sheath performs in a similar way for synapses which allows the synapses to become faster and more efficient.

The brain cells that produce the cholesterol for myelination are very easily damaged by head trauma, stress, toxins, certain drugs and the wrong kind and amount of stimulation including over stimulation. This stops synapses and from growing and stops creating the myelin that makes it easy for a person to use what has been learned. This is of critical importance for children from birth through the age of five because in the first two years of life, the brain triples in size and by the age of three the brain is eighty-five percent complete. However, according to the Journal of American Pediatrics, "screen use among pre-kindergarten children that exceeded the American

Academy of Pediatrics (AAP) guidelines was associated with lower measures of micro-structural organization and myelination of brain white matter (2020)".

Another area of brain development that is negatively impacted by excessive exposure to screens is dopamine. Dopamine is the same feel-good chemical released when someone eats a delicious dessert or when someone "likes" their post on social media. However, there is ample evidence that excessive exposure to screens triggers the release of a flood of dopamine that humans have not yet adapted to be able to handle which wears down these pathways in the brain and increases the demand for more stimuli. The conundrum for young children is that they are receiving significant amounts of dopamine before the brain has fully developed. In turn, the brain craves more dopamine while naturally producing less dopamine in order to self-regulate which makes it harder to experience joy from naturally occurring experiences.

Domains of Executive Function

"Executive function comprises the ability to be mentally and behaviorally flexible to changing situations and to provide coherence and smoothness in one's responses" (Moran & Gardner, 2007). Social problem-solving skills, also referred to as social reasoning (Attwood, 2007) and decision-making skills (Elias & Tobias, 1996), involve not only language (e.g., semantic knowledge) but cognitive processes such as attention, inhibition, and working memory along with executive skills (Richard & Fahey, 2005). However, excessive exposure to screens can negatively impact the development of the domains of executive function: cognition, emotion, action, and perception.

In the domain of cognition, theory of mind, or the ability to understand the perspectives of others, a key hallmark of ASD can be negatively impacted when children don't have adequate opportunity to develop this skill through interacting with other people which helps to develop foundational skills such as interpreting facial expressions and body language. Thus, impairments in theory of mind result in …

- Reduced understanding that different people and/or places have different expectations,
- Poor awareness of how their behavior affects how others think and feel,
- Inability to identify with "future self" and how I act in this moment, may have an impact on things that happen later; and
- Difficulties with reading comprehension and understanding the perspective of a character and making inferences regarding the actions, beliefs, and intentions of others (Carruthers & Smith, 1996; McTear & Conti-Ramsden, 1991).

In the domain of emotion, emotional regulation is the ability to maintain a well-regulated emotional state, to cope with everyday stress, and to be most available for learning and interacting as well as the ability to move back and forth across negative, positive, and neutral emotional states. Emotional dysregulation is an inability to manage emotional responses appropriately or keep them within an acceptable range of typical emotional reactions. When humans are well regulated emotionally, they are most available for learning and engaging with others (Prizant, 2015). Emotional regulation develops very early when babies express emotions that are responded to by caregivers. During the first three years of life, the ability to manage, recognize, and label emotions begins through interactions with family members, caregivers, and peers. By the age of three years, children should be able to intentionally modify the intensity of

their emotions depending on the situation. By the end of the preschool, children should be able to use some strategies for emotional regulation, manage frustration, inhibit emotional behaviors which are socially inappropriate, and stay organized when faced with powerful emotional events. Emotional regulation is very closely connected to self-regulation which is the capacity to control emotions. Self-regulation is learned through modeling via the adults in the child's environment when they talk to the child in a calm voice, hold them, rock them, and help them to feel safe and comfortable. However, when technology is used to calm a child, the child does not have this model to learn from. Difficulty and staying well-regulated emotionally and physiologically should be a core, defining feature of ASD, unfortunately, however, professionals have long overlooked this and focused on the resulting behaviors instead of the underlying causes (Prizant, 2015).

In the domains of action and perception, attention refers to the ability to control impulses, recognize distraction, ignore distraction, and attention to task as well as task perseverance. In terms of perception, the visual processing system begins developing before the age of two and final development isn't reached until eight or nine years of age. However, the faster visual information comes in, the faster the brain needs to process it to keep up. When exposed to overstimulating digital content, children may get into a state of hyper-focus because the brain is having to work so hard to process the fast-changing visual information. When this occurs with significant frequency or intensity during critical stages of development, it may result in permanent changes in the processing pace of the brain. In other words, a three-year-old could potentially grow up feeling "comfortable" in the super-fast pace of screen media stimulation, but uncomfortable with the normal pace of everyday life. Often there is accompanying difficulty trying to get the child off the overstimulating digital content because the child was super-focused, and they are now super-unfocused. Until the brain readjusts to a normal pace, the child will likely demonstrate behaviors that are an attempt to find stimuli that is moving at the same pace as the brain.

The visual system is closely linked to the vestibular system which controls balance and perception of where your body is in space as well as an impact on mood and temperament. For example, linear acceleration such as rocking, swinging, walking, or driving helps fussy babies to fall asleep. On the other hand, rotational acceleration or spinning is arousing. The challenge is that when the child's visual system has been in super-focused processing mode, it locks up the vestibular system. Once the hyper stimulating content is removed, the vestibular system is now unfrozen and will struggle to readjust readily and easily which is often accompanied by drastic shifts in mood.

<u>Recommendations of the American Academy of Pediatrics</u>

The AAP states that extended screen time does much more harm than good with negative physiological, cognitive, social, emotional, and other consequences… (and) may be linked to negative outcomes in child development, such as poor academic performance, obesity, and sleep problems as well as social behavior deficits or attention problems especially during critical periods of development (Dong et al., 2021). It is for this reason that the AAP recommends the following:

- Until 18 months of age, limit screen use to video chatting with an adult (for example, with a parent who is out of town).

- Between eighteen and twenty-four-months screen time should be limited to one hour a day of watching educational programming with a caregiver.
- *For children ages two to five, limit non-educational screen time to about one hour per weekday and three hours on the weekend days.
- *For ages six and older, encourage healthy habits and limit activities that include screens.
- Turn off all screens during all family meals and outings.
- Learn about and use parental controls.
- Avoid using screens as pacifiers, babysitters, or to stop tantrums.
- Turn off screens and remove them from bedrooms 30-60 minutes before bedtime.

*Screen time amounts *do* include time spent in front of screens at school for *non*-educational purposes.

In a joint position statement of the National Association for the Education of Young Children and the Fred Rogers Center for Early Learning and Children's Media they urge that "Early childhood educators always should use their knowledge of child development and effective practices to carefully and intentionally select and use technology and media if and when it serves healthy development, learning, creativity, interactions with others, and relationships" (NAEYC & Fred Rogers Center 2012). A few of their recommendations include

- Technology use should not displace or replace imaginative play, outdoor play and nature, creativity, curiosity and wonder, solitary, and shared experiences, or using tools for inquiry, problem solving, and exploring the world.
- Select, use, integrate, and evaluate technology and interactive media tools in intentional and developmentally appropriate ways, giving careful attention to the appropriateness and the quality of the content, the child's experience, and the opportunities for co-engagement.
- Provide a balance of activities in programs for young children, recognizing that technology and interactive media can be valuable tools when used intentionally with children to extend and support active, hands-on, creative, and authentic engagement with those around them and with their world.
- Prohibit the passive use of television, videos, DVDs, and other non-interactive technologies and media in early childhood programs for children younger than 2, and discourage passive and non-interactive uses with children ages 2 through 5.

<u>Secondhand Screens</u>

It is not only the impact of excessive screen use by children that is of concern, but parental use of screens as well which can negatively impact development. In fact, digital device use by parents has been referred to as "the new secondhand smoke (Rodgers, 2020)". In other words, "secondhand screen time" mirrors the danger known all too well regarding secondhand smoke because kids are indirectly exposed to screens as a result of someone close to them using screens instead of engaging with or attending to the child. This is important because for children with typical development or disabilities, high levels of parental responses which follow their child's focus of attention in order to add language to their child's play are related to better language and developmental outcomes (Trivette, 2003). Radesky posits that "Heavy parent use of mobile devices is associated with fewer verbal and nonverbal interactions between parents and children, lower responsiveness to a child's bids for attention, and parent hostility in response to the child's bid for attention (2015)." When parents are attending to screens instead of the child there are

decreased verbal and nonverbal interactions between the parent and child which is how humans are wired to develop language. In fact, between birth and age three, all learning takes place in a social context through relationships with other humans and it cannot be replicated in any other way. Therefore, parent use of screens is a precarious combination of being physically present, but socially and emotionally disconnected.

D. Neurodiversity and Autism

Autism has traditionally been conceptualized and defined by core deficits in social interaction and communication (American Psychiatric Association, 2013) with the research traditionally highlighting that autistic people (using identity-first language is consistent with the preference of many autistic people) (Kenny et al., 2016) perform more poorly than non-autistic people on many measures of social cognition and it is these social-cognitive differences which are believed to underlie real-world difficulties in interaction (Atherton, Lummis, Day, & Cross, 2019; Morrison et al., 2019). However, research has also indicated that so-called autism-specific social difficulties could instead be bidirectional in nature and that people of different neurotypes may be mutually misunderstanding one another. Likewise, difficulties in interactions are likely to occur because of different ways of experiencing the world and processing information (Milton, Heasman, & Sheppard, 2021). Therefore, the understanding of autism is changing, with increasing evidence suggesting that social difficulties are, at least in part, bidirectional (Davis & Crompton, 2021).

Neurodiversity addresses this concept by contending that humans are not neurologically 'one size fits all' and recognizes the unique abilities and neurological differences in every person (Collier, 2019). A central premise of the neurodiversity movement is that variations in neurological development and functioning across humans are a natural and valuable part of human variation and therefore not necessarily pathological (Jaarsma and Welin, 2012; Kapp, 2020). The most significant premise is that difficulties are not simply a defect in the individual but arise as a result of an unaccommodating environment (Oliver, 1990). The neurodiversity movement makes several demands, including the recognition and acceptance of the value of cognitive variation as a form of biodiversity and its positive contribution to groups, communities, and societies (Chapman, 2020) and equal rights leading to an end to discriminatory policies and practices (Runswick-Cole, 2014).

An increasing number of studies provide converging evidence of nonautistic people misreading social situations with autistic people. For example, nonautistic people interpret facial emotions less accurately than do autistic individuals (Sheppard, Pillai, Wong, Ropar, & Mitchell, 2016), are less willing to interact with autistic people, overestimate how egocentric autistic people are (Heasman & Gillespie, 2017; Sasson et al., 2017), and overestimate how helpful they are to autistic people (Heasman & Gillespie, 2019). Nonautistic people are also less accurate than autistic people at interpreting the mental states of autistic people (Edey et al., 2016), and finding autistic people difficult to read is related to their being perceived unfavorably by nonautistic people (Alkhaldi, Sheppard, & Mitchell, 2019). Moreover, the social-cognition assessments used in research are currently based on nonautistic social interactions and norms (Morrison et al., 2019) and as such, the performance of autistic people on measures of nonautistic social cognition are unlikely to accurately predict a person's real-world functional and social skills (Sasson, Morrison, Kelsven, & Pinkham, 2020).

Therefore, if differences in interaction styles are viewed as impairments for autistic people, there must also be consideration of the differences of nonautistic people as examples of impairments that may exacerbate difficulties in social interactions for autistic people (Davis & Crompton, 2021). As such, a neurodiverse view opposes any attempt to "cure" or "normalize" autistic children, and, whilst in many contexts this perspective is no longer acceptable (Happé and Frith, 2020), there are still many interventions purport an explicit or implicit curative or normative agenda (Mottron, 2017). This opposition is conceptual as even if it were desirable, it would not be possible to cure someone of an innate neurological difference (Leadbitter, et.al., 2021).

When considerable effort is spent daily on monitoring and modifying of behavior to conform to conventions of non-autistic social behavior (Mandy, W., 2019) it has come to be called 'social camouflaging', 'masking', 'compensation' and 'pretending to be normal' (Hull et al., 2017; Lai et al., 2017; Livingston, Colvert, et al., 2019). Several quantitative studies show associations between camouflaging and internalizing problems demonstrating that autistic people who mask also tend to report higher rates of anxiety and depression (e.g. Cage & Troxell-Whitman, 2019; Livingston, Colvert, et al., 2019). As a result, masking their autism or attempting to "pass" as neurotypical comes at a huge cost to mental health and well-being (Milton and Moon, 2012; Mandy, 2019).

It is with a broader understanding of autism via the self-advocacy of autistic adults, a neurodiverse perspective allows nonautistic persons to better appreciate that brain differences are normal, rather than deficits which should have an impact on our assessment and intervention practices. According to Simon Baron-Cohen, clinical psychologist, Director of the Autism Research Centre (ARC) and a significant contributor to the research and understanding of autism, "in highly social and unpredictable environments some differences may manifest as disabilities, while in more autism-friendly environments the disabilities can be minimized, allowing other differences to blossom as talents… The neurodiversity perspective reminds us that disability and even disorder may be about the person-environment fit. To quote an autistic person: 'We are freshwater fish in salt water. Put us in fresh water and we function just fine. Put us in salt water and we struggle to survive' (2019)."

E. Assessment of Pragmatics

Pragmatic language is difficult to assess for several reasons. First, pragmatics is defined as context-dependent behavior. Therefore, the structure of norm-referenced testing procedures where there is only one right answer fails to capture the flexibility necessary for changing contexts (Adams, 2002). The question to be answered when assessing pragmatics is also different from the question asked during typical assessments because pragmatic language relates to the *use* of language. In other words, when assessing pragmatics, the question should not be, "Is this skill present or not?" (i.e., "Do they initiate greetings or not?" or "Do they acknowledge the speaker or not?"), but rather "When is the skill demonstrated appropriately and/or inappropriately?". This is a critical understanding for a determination of deficits in the area of pragmatics because the use of language varies across contexts, settings, people, and time. For example, how might someone respond to these three questions: "What is a nice birthday gift for a friend?", "Is it okay to touch someone else's hair?" and "What should you do when someone raises their hand?" There is not one right answer to these questions because the appropriate

response depends on context, setting, people and time. A good birthday gift for a friend in elementary school would be different than in high school, it would be ok to touch someone's hair if you were a hairdresser in a salon, and in the context of a big city, raising your hand may be to get the attention of a taxi. therefore, pragmatics is not just the presence or absence of a skill or the initiation and response to a social stimulus; but rather the ability to adapt language use in response to whatever the stimulus is at that time, in that context, in that setting or with that person.

To get a complete picture of a student's pragmatic language abilities, SLPs need to collaborate with parents and other professionals (Watson & Flippin, 2008). Involving parents in assessment is essential to determine influences such as home routines, how the child functions within those routines, parent-child interactions, parents' level of satisfaction with those interactions, parent priorities, and intervention approaches that best fit with parent values and styles as well as the needs of the child (Watson & Flippin, 2008). While limited by the possibility of subjective interpretation, parent/caregiver assessment offers some distinct advantages (Volden & Phillips, 2010). First, parent/caregiver reports assess children's language in an authentic setting based on instances of language usage observed in the home. Second, because they are completed by someone who knows the child well, they are more likely to represent the child's typical level of functioning and be less influenced by day-to-day fluctuations. Third, they may be more comprehensive in their evaluation, because they allow for the assessment of a larger range of pragmatic abnormalities, including behaviors that would not occur during typical development. Such behaviors may be difficult to elicit in test situations and may occur relatively infrequently, but they are nonetheless salient for the child's ability to function effectively in the environment (Bishop, 1998) (see Parent/Caregiver Questionnaire Appendix Q).

List of various pragmatic assessment tools:
(This list does not include information regarding sensitivity and specificity. Please look in the test manual for each test to find this information.)

- Asperger Syndrome/ High-Functioning Autism Diagnostic Interview (Gillberg, 2002)
- Autism Diagnostic Interview - Revised (Rutter, et al., 2003)
- Autism Spectrum Screening Questionnaire (Ehlers, et al., 1999)
- Checklist for Autism in Toddlers (Baron-Cohen, et al., 1992)
- Children's Communicative Checklist - 2 (Bishop, 2006)
- Clinical Assessment of Pragmatics (CAPs, 2019)
- Communicative Partner Profile (Anderson-Wood and Smith, 2000)
- Communication and Symbolic Behavior Scales Developmental Profile (CSBS-DP; Wetherby &Prizant, 2002)
- Conversational Effectiveness Profile - Revised (Kowalski, 2010)
- Dore's Conversational Acts (Stickler, 1987)
- Fey's Pragmatic Patterns (Fey, 1986)
- Functional Communication Profile (Kleinman, 2003)
- Halliday's Functions of Language (Milelr, 1981)
- Informal Social Thinking Dynamic Assessment Protocol (Winner, 2007)
- Interaction Record (Anderson-Wood and Smith, 2000)

- MacArthur–Bates Communicative Development Inventories, Words and Gesture Form (CDI; Fenson et al., 2002).
- Muir's Informal Assessment for Social-Communication (Muir, et al., 1992)
- Parent Interview for Autism (Stone and Hogan, 1993)
- Pragmatic Rating Scale (Landa, 2002)
- Pragmatic Language Skills Inventory (Gilliam & Miller, 2006)
- Prutting Pragmatic Protocol (Prutting & Kirchner, 1987)
- Social Communication Questionnaire (Rutter, et al., 2003)
- Social Skills Rating System (Gresham and Elliott, 1990)
- Social Language Development Test (Bowers, Huisingh, & LoGuidice, 2016)

Recall that the IDEA does not require the use of norm-referenced standardized assessment tools, but rather the "use a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information about the child, including information provided by the parent, as well as information related to how well the child is able to be involved in and progress in the general education curriculum (or for a preschool child, to participate in appropriate activities)(34 CFR §300.304)." Therefore, the goal of the SLP as part of a comprehensive assessment team should be to gather a variety of data to assist the team with determining whether not the student demonstrates:

- persistent deficits in social communication and interaction across multiple contexts and multiple conversational partners,
- repetitive patterns of behavior or interests,
- and areas of adverse educational impact.

As part of the evaluation process, school based SLPs should determine which components of social communication are not developing along the appropriate developmental continuum as well as how deficits may impact the student educationally. Table 18 includes key questions IEP teams may consider to assist with determining appropriate eligibility, services, and supports. Table 17 outlines key features of ASD along with deficits that would be observed in the areas of language. Also included in this document is ASHA's thorough and comprehensive framework for SLPs related to pragmatics, Components of Social Communication and Social Communication Benchmarks (Appendix T).

Table 17. Definition of Autism with Key Features and Deficits Seen in the Language Areas

Autism is a developmental disability characterized by deficits in social communication and interaction as well as significant restricted interests and repetitive behaviors, including engaging in repetitive activities and stereotyped movements, adhering to highly specific or repetitive interests, resisting environmental change or change in daily routines, and responding in unusual ways to sensory experiences.		
The term Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c)(4) of this section.		A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1)(i) of this section are satisfied.
Deficits Seen in the Language Areas		
Social-emotional reciprocity, ranging, for example from abnormal social approach and failure of normal back and forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.	Nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body-language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.	Developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

Table 18. Questions for the team to consider may include:

1. Does the student appear to break social rules and/or expectations they do not like/do not agree with OR that they do not know?	If the student lacks the knowledge of the appropriate use of language for specific communicative contexts (i.e., turn-taking, topic management, eye contact, nonverbal behaviors, absence of interests in peers or play/interaction with peers as well as other social communication skills) the student may require specially designed instruction to be taught the age-appropriate language skills. The language-based areas for social communication evolve over time and there are several types of personnel in the school setting that can provide a variety of types of support for these areas. Therefore, individual student needs should be considered and then matched to the most appropriate personnel to assist and support the areas of identified need within the Least Restrictive Environment. The SLPs assessment should assist the team with determining whether a lack of age-appropriate language knowledge or understanding (e.g., pragmatics) is the reason for non-compliance (breaking social rules and/or expectations they do not like and/or do not agree with) and thus warrant services to remediate an underlying language disorder. If there is not an underlying language disorder, the team may want to consider other possible areas of disability as persistent difficulties in social language/ communication and social interaction across multiple contexts is one half of the criteria for the classification of ASD.

2. Once the student learns a social rule or expectation, do they continue to break it? … If so, why?	A classification of Autism requires persistent deficits in social communication and social interaction across multiple contexts. If the student demonstrates performance inconsistency, difficulties remembering to use, slowing down enough to use appropriate social communication, and/or difficulty focusing on the social cues and communication of others, the team may want to consider accommodations or various types of visual supports as opposed to specially designed instruction which is not likely to improve the skills a student already has age-appropriate knowledge of. These concerns may or may not have a language foundation.
3. Is there performance inconsistency (meaning are social interactions better in certain settings, or times or with certain people)?	
4. Are impulsivity and difficulty considering consequences before acting impacting the ability to apply social language knowledge?	
5. Is the student missing social cues due to not paying attention to others?	
6. Has the student had opportunities to be exposed to or learn social rules/expectations or had adverse childhood experiences that would impact social development?	If the student struggles with non-compliance, lacks empathy, has a deliberate intent to hurt or harm and/or is deliberately manipulative or deceitful, the student may need services primarily in the areas of social or emotional skills development or functional behavior. These concerns may or may not have a language foundation. However, complex behaviors and needs warrant consideration by the IEP team of a comprehensive approach by a variety of support personnel. In addition, the classification of Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance.
7. Is there a lack of empathy for other people and/or a deliberate intent to hurt or harm others?	
8. Is the student manipulative or purposefully deceitful?	
9. Is there evidence of an adverse educational impact due to social communication deficits?	See section J of this chapter

F. Assessing Social Interaction

Play is the work of children and through play, children learn academic skills like math, science, reading, language, and literacy. They learn social skills such as effective communication, conflict resolution, problem solving and cooperation. Perhaps most importantly, they learn about themselves by getting to know their personalities including their likes and dislikes, strengths, and interests. Social and joint attention, imitation, and play have been shown to be especially significant variables in relationship to language outcomes (Watson & Flippin, 2008). Use of play routines as part of intervention have been shown to be particularly useful in teaching social interaction and intentional communication to young children (Kashinath, Woods, & Goldstein,2006; Snow, Perlmann, & Nathan, 1987; Yoder & Davies,1992) as they provide predictable interactions between a child and an adult that allow the child to observe clear models of the communicative process and to experience consistent, naturally reinforcing consequences (Bruner, 1983;McCormick, Loeb, & Schiefelbusch, 2003; Ratner & Bruner,1978). Researcher

Mildred Parten (1930) first identified the six stages of play that children progress through (see Table 19).

Table 19. Stages of Play (Parten, M. 1930).

Stage of Play	Age Range	Description
Unoccupied Play	Birth-Three Months	When a child is just making a lot of movements with their arms, legs, hands, feet, etc. They are learning about and discovering how their body moves.
Solitary Play	Birth- Two Years	When a child can play alone, but they are not interested in playing with others yet.
Onlooker Play	Two Years	When a child begins to watch other children playing but does not play with or alongside them.
Parallel Play	Two + Years	When a child plays alongside or near others but does not play *with* them.
Associate Play	Three to Four Years	When a child starts to interact with others during play, but there is not a large amount of interaction at this stage. A child might be doing an activity related to the kids around him but might not actually be interacting with another child. For example, kids might all be playing on the same piece of playground equipment but all doing different things like climbing, swinging, etc.
Cooperative or collaborative Play	Four+ Years	When a child plays together with others and has an interest in both the activity and other children involved in playing.

When assessing young children, it is recommended that the SLP observe and document the child's level of play. The reason for this is because formal psychometric tests yield an estimate of some specific skills, but they do not assess all the cognitive, representational, and thinking skills necessary for the use of language for communicative purposes (Westby, 1980). Symbolic play provides a means of assessing children's representational abilities within a consistent developmental sequence (Piaget, 1962; Sinclair, 1970; Fein, 1975; Lowe, 1975; Chappell and Johnson, 1976; Liebergott and Swope, 1976; Garvey, 1977; Nicolich, 1977; Westby, 1977). While, symbolic skills are not sufficient for language development, they are essential prerequisites for meaningful communication (Sinclair, 1970), Moreover, Brady et al. (2004) and McCatheren et al. (1999) demonstrated that children who used symbolic play have better outcomes in therapy because play and language development tend to mirror each other. Therefore, if a child is lacking in areas of play as well as language, it is beneficial to elicit both in tandem as the skills reinforce each other (Paul, R., 2012). The Westby Play Scale (see Appendix A for modified version) is a research-based scale that describes symbolic play development as it correlates to typical language development through the first five years. Westby developed this checklist that can be used to track where a child's symbolic play skills fall and inform the selection of language goals and play-based interventions to target those goals. This has important implications for intervention because children who participated in joint attention or symbolic play interventions showed better expressive language skills than children who only participated in applied behavior analysis (ABA) services after a one-year period (Kasari, Paparella, & Freeman, 2008).

G. Assessing Social Cognition

Social cognition includes theory of mind, emotional competence and emotional regulation, executive functioning, joint attention, as well as inference and presupposition. Theory of mind, emotional competence and emotional regulation, and executive functioning were discussed earlier in this chapter. Therefore, this section will discuss one method of assessment for these unique areas.

Due to the complexity of assessing pragmatic language and its impact on a student's educational performance, a dynamic assessment of the areas of social cognition should be considered (see also Chapter Three and Appendix W). A dynamic assessment includes a test-teach-test approach and mediated learning experiences that examine guided learning to determine the student's potential for change. How well a student performs after assistance is critical information when using dynamic assessment methods. Essentially, dynamic assessment procedures evaluate a student's learning processes and ability to benefit from instruction. As such, the test-teach-retest paradigm can be a highly informative assessment strategy that is particularly relevant for use in school settings. After guided practice, students who do not have speech and/or language impairments often show marked improvement in performance. In other words, students who initially performed poorly on tests due to limited opportunity to learn often benefit from supportive teaching and then perform better when tested again. Students who have speech and/or language skills that are readily modifiable in a dynamic assessment are less likely to have impairments.

A dynamic assessment of social cognition would focus on the ability of the student to respond to learning experiences along the appropriate developmental continuum. A dynamic assessment of social cognition may include shared storybook reading with conversation about mental states and emotions of characters as well as self, relating these feelings/events back to their own experiences, perspective taking, discussion of other people's feelings through discussion, answering inference and prediction questions, etc. One of the most important features of any dynamic assessment is the use of open-ended questions and scaffolding to help encourage as much communication as possible.

H. Assessing Verbal Language

A critical area of language use and development is narrative skills (see also Table 20 and Chapter Three). Narration plays a role in the development of social competence and can take many forms from storytelling and retelling stories to providing descriptions of an event or giving directions. Narratives also reflect emotional and psychological underpinnings of human interactions, providing an account not only of what happens to people, the "landscape of action," but also what those involved in the action (and those telling it) know, think, or feel about what happens, the "landscape of consciousness" (Bruner, 1986). When narrative performance is weak, children may be at risk for developing social and behavioral problems because of their limited ability to interact with others (Dickinson & Snow, 1987; Snow, Burns, & Griffin, 1998). Storytelling is a skill that contributes to being well liked and leads to increased opportunities to practice language (McCabe & Marshall, 2006). However, children with language impairment tend to have increased difficulty expressing themselves during social interactions (Hart, Fujiki, Brinton, & Hart, 2004) and may avoid situations that may stress their language system which leads to fewer

opportunities to interact socially with others, which intensifies their limited social skills (Redmond and Rice, 1998),

Within the associated skills necessary for narratives, Tager-Flusberg and Sullivan (1995) found that children with autism produced shorter stories with fewer causally related events than typically developing children and Diehl et al. (2006) echoes that children with autism produced narratives that included significantly fewer causal elements. In addition, difficulties with inference, a consistent with what is known about the language deficits of children with ASD. Wing points out difficulties with inference and the inferential questions that a child must demonstrate in order to reveal insight into the reactions and the mental states of actors in the story (1981). Tager-Flusberg and Sullivan (1995) reported that difficulties with theory of mind were related to narrative discourse in adolescents with autism, including narrative length as well as use of emotion and cognition words.

Assessing narrative skills as part of an evaluation of pragmatics is highly recommended. This can be accomplished through language sample tools such as the NLM Cubed, the SUGAR, the SLAM, Timler's "Share and Tell" Utterance and Text Level Language Sampling Protocol for School-Age Children and Adolescents (see Appendix U) and other measures of narrative skills. Weaknesses found in narrative skills are likely to have a direct educational impact. Table 20 provides the general continuum of narrative skill development.

While assessing narrative and conversational skills, a few key details of the student's narrative production are important to note. These include the amount or length of production (too brief, too long), details provided (too little, too much), and relevance of topic (consistent topic maintenance, changes topics/tangential). Often speakers with ASD fail to develop the topic by contributing new, relevant information, may reiterate previously mentioned topics, and/or fail to link their utterance to prior ones (Baltaxe, 1977; Bishop & Adams, 1989; Eales, 1993; McCaleb & Prizant, 1985; Tager-Flusberg & Andersen, 1991; Volden, 2002). In addition, they may exhibit sudden and inexplicable topic shifts (Bishop, 1998; Bishop & Adams, 1989; Eales, 1993; Fine, Bartolucci, Szatmari, & Ginsberg, 1994; Tager-Flusberg & Andersen, 1991) and the presence of irrelevant, inappropriate, stereotypical, or bizarre comments (Adams, 2002; Gilchrist et al., 2001; Loveland, Tunali, McEvoy, & Kelley, 1989; Tager-Flusberg & Andersen, 1991; Volden, 2004). It is important to understand, however, that these types of difficulties in conversation may be due to the anxiety surrounding the unpredictability of how the conversational partner may reply. Therefore, to create predictability the person may limit conversation to the area(s) that they have mastery (Prizant, 2015).

In addition to topic related skills, it is important to note observations related to prosody including rate, pitch (inflection/intonation/stress), tone and loudness, rhythm as well as presence or absence of excessive conversational fillers. Additionally, presence or absence of stereotyped words and phrases out of context (i.e., TV shows, movies, phrases used by adults), response to request for clarification, demonstration of appropriate proxemics to partner, response to questions with appropriate/expected response and description of conversational turn taking is also recommended. The use and/or understanding of figurative language (multiple meaning words, idioms, sarcasm, etc.) is also helpful information as difficulties with figurative language also are frequently noted in students on the spectrum (Happe, 1993). Finally, notations regarding

central coherence and the ability to recognize the invisible relationships between all the parts (ex. "these both ___), the ability to get the point, or understand the gist of things as well as the ability to look broadly at social situations without hyper focusing on small or irrelevant details should be noted. None of the above pragmatic skills are measured on traditional language assessment instruments because traditional tests focus mostly on linguistic structure and meaning rather than on pragmatic language use (Anderson, Lord, & Heinz, 2005; Bishop, 1998; Bishop & Baird, 2001; Young et al., 2005). Therefore, any of the above skills as well as vocabulary used for labeling of emotions may be further assessed via dynamic assessment when found to be of concern within conversational and/or narrative sampling.

Table 20. Narrative Skill Development

Narrative Skill Development	
Stage I: Heaps (2yrs)	___ Simple present progressive tense is used. ___ a collection of unrelated ideas ___ lack of cohesive devices ___ switches topic often
Stage II: Sequences (2-3yrs)	___ central character ___ topic ___ setting ___ arbitrary links between story elements
Stage III: Primitive Narratives (3-4yrs)	___ central character, topic, setting ___ discussion of the character's facial expressions or body postures ___ events follow a central theme ___ presence of cause-and-effect relationship
Chains (4-5 yrs)	___ multiple characters ___ sequence of events has a logical link _____ cause and effect relationships present ___ use of conjunctions ___ story is told in a logical sequence ___listener may still need additional information to interpret the ending
True Narrative (> 5 years)	___ focuses around an incident ___ a true plot is developed ___ characters are developed ___ a logical sequence of events ___ a problem is resolved in the end ___ characters are developed by connecting motivation and goals with the plot

Adapted from Hutson-Nechkash, Peg, 2001, Ripley, K., 2012

I. Assessing Nonverbal Language

Children with autism demonstrate limited social reciprocity and decreased use of nonverbal behaviors such as eye gaze, facial expression, body postures, and gestures to communicate and regulate social interaction (American Psychiatric Association, 1994) and eye gaze and gestures have been found to be persisting core deficits in children with autism (Colgan et al., 2006; Mundy, Sigman, & Kasari,1994; Sheinkopf, Mundy, Oller, & Steffens, 2000). Specific gestures (especially pointing) have also proven to be a strong predictor of later language skills in children with typical development (Morissette et al., 1995), children with Down syndrome (Franco &

Butterworth, 1996), and autistic children (Baron-Cohen, 1989). There is also increasing evidence that gesture development can be a key distinguishing feature to help differentiate children with typical development from those with various types of disabilities including ASD (Mundy, Kasari, Sigman,& Ruskin, 1995; Zwaigenbaum et al., 2005) due to the numerous studies across a variety of disciplines related to gesture development and its link with later language skills (Capirci, Iverson, Pizzuto, & Volterra, 1996; M. Carpenter et al., 1998; Iverson, Capirci, & Caselli, 1994;Thal & Tobias, 1992, 1994; Thal, Tobias, & Morrison,1991). In fact, lack of appropriate gestures between twelve and twenty-four months was one characteristic that distinguished autistic children and children with typical development (Adrien et al., 1993).

Gestures are actions produced with the intent to communicate and are typically expressed using the fingers, hands, and arms, but can also include facial features (e.g., lip smacking for "eating") and body motions (e.g., bouncing for "horsie") as described by Iverson and Thal (1998) who distinguished between the two primary categories of gestures as being deictic and representational. Deictic gestures establish reference by calling attention to or indicating an object or event (Bates, 1976) and can only be interpreted by their context (e.g., pointing to a dog that is running). Representational gestures, on the other hand, establish reference and indicate a particular semantic content.

Most current assessment tools do not focus specifically on gesture development therefore it is important to observe and document these skills informally. Indeed, most tests have only a few items related to gestures. Although these few items can provide information as to whether a child is using any gestures, they typically fail to indicate which gestures might likely be seen first or what communicative functions the gestures serve. Two tools with a specific focus on gesture use by young children are the Communication and Symbolic Behavior Scales Developmental Profile (CSBS-DP) (Wetherby &Prizant, 2002) and the MacArthur–Bates Communicative Development Inventories, Words and Gesture Form (CDI) (Fenson et al., 2002). As an informal means for examining gesture development SLPs may utilize a list of commonly used gestures (see Appendix S) and have parents and teachers identify which gestures a child may be using. This is preferred over questions such as "does the child use gestures" as this does not provide information identifying which gestures are used, where those gestures fall along the continuum, and is not likely to represent an accurate picture of gesture use due to the average lay person's ability to recall and label gestures. That said, due to the expected variations in parenting style and in individual children, caution should be taken in interpretation and utilization of these milestones, especially for those from culturally or linguistically diverse backgrounds.

J. Assessing Language Processing and Adverse Educational Impact

An educational classification of Autism differs from a medical diagnosis of Autism due to the two prongs of eligibility which relate to the presence of a disability as well as educational impact and thus the need for specially designed instruction. Educational performance is not defined by or limited to academic needs only, but rather includes the social and emotional needs that may also affect academic progress, school behavior, and socialization (County of San Diego, citing Tilton v. Jefferson County Bd. of Educ., 705 F.2d 800, 803, 6th Cir. 1983). Moreover, the statutory term "unique needs" has been construed broadly include "academic, social, health, emotional, communicative, physical and vocational needs (Seattle School District No. 1 v. B.S., 9th Cir. 1996).

Neither the IDEA nor the OSEP provide a specific definition of educational performance. Instead, a student's progress with both academic and nonacademic skills should be considered. Academically, pragmatic language may cause difficulties with reading such as the ability to separate important from unimportant information, understand point of view, make inferences, and understand main idea as well as figurative language. This includes idioms, as well as multiple meaning words within the context of a passage. In addition, students with pragmatic language deficits may also struggle with writing. This includes having appropriate written language content amount, using clear referents, and providing clear details, as well as linking details in a logical way (see also Chapter Nine, Language Is Literacy, and the discussion relative to "pragmatics in print"). Pragmatic language deficits may also impact non-academic skills which may adversely impact educational performance. For example, poor organization of materials, listening for meaning, inability to ask for help or clarification, participation in groups may negatively impact a student's ability to access the curriculum and progress at a rate similar to peers.

K. Supports for Students with Autism

As the number of children identified with ASD continues to rise, continued education and training is important; this applies to the SLP, schools, communities, and the families involved. Educating other professionals, as well as family members, is an important component of the speech-language program for students with ASD and requires that the SLP stay up to date on current evidence-based practices in assessment and intervention. This can be achieved by attending trainings, reading current research, and sharing knowledge with the school staff, families, and the community; in this way, the SLP is both the trainee and trainer.

Notwithstanding an appreciation for neurodiversity and autism, students with ASD may need specially designed instruction from an SLP to remediate disordered language skills. These services and supports may take a variety of forms. SLPs may provide direct services and/or indirect services such as collaborating with educators to develop visual, social, communication, behavioral, sensory, and assistive technology supports to improve performance of students with ASD. Knowing the student's individual strengths and weaknesses will better enable the SLP to design a functional approach to meet that student's communicative needs. The following are examples of a few types of possible supports and strategies that may be provided to students with ASD by a variety of personnel.

- Acknowledge all attempts to communicate and respond to them. This type of reciprocal conversation develops trust and can become a foundation for progress.

- Acknowledge and label the student's emotional state. In doing so, it helps support the development of specific emotional vocabulary and the ability to accurately problem solve.

- Clear is kind. Clearly explain social expectations and why they exist. When there is a clear understanding of why an expectation exists, it is more likely to be understood and applied across contexts, people, and settings.

- When teaching social expectations, teach the exceptions as well. For example, when teaching to raise your hand to be called on, it is important to teach that the teacher will not *always* call on you if/when your hand is raised.

- Celebrate successes! It is difficult to maintain enthusiasm and engagement when someone is always trying to "fix you". Recognize that a neurodiverse view does not recognize a person as something to be "fixed", but rather the importance of both typical and neurodiverse individuals to understand each other.

- Do not teach emotions based on labeling pictures of people or drawings expressing emotions because emotion is highly dependent on context. It is better to describe the emotion the moment that the person is feeling it. Talk about recognizing how specific emotion make your body feel using clear descriptions, teach strategies for what to do when experiencing emotions to get back to a neutral state, teach what to respond if some else is demonstrating a specific emotion, and learn to recognize emotion based on body language, tone of voice, facial expression and context.

- Visual supports such as individual schedules, task lists, task organizers, templates, clearly defined physical boundaries within the classroom, visual timers, cue cards, picture prompts, picture symbols, or any visual representation of messages can enhance student performance in instruction, communication, socialization, behavior, and transitions. Students with ASD often demonstrate greater understanding when shown, rather than told, what to do (Hodgdon, 1999).

- Communication supports such as real objects, pictures, symbols, photographs, written words, increased wait time, voice meters, visual pragmatic cues and augmentative communication devices can all enhance both receptive and expressive language for students with ASD (Mirenda, 2009).

- Social supports such as visual prompt cards, social stories©, scripts, rehearsals, peer partners, and video modeling as appropriate and when implemented as part of systematic instruction can improve demonstration and generalization of social skills in students with ASD (Bellini, 2006).

- Behavioral supports such as posted rules, consistent classroom routines, systematic reinforcement systems, tangible and nontangible reinforcers, self-monitoring scales, a quiet retreat area, periodic breaks, and showcasing student interests and passions can increase the display of positive behaviors in students with ASD (Janzen, 2003).

- Assistive technology supports ranging from low tech, (such as dry erase boards, clipboards, 3-ring binders, photo albums. or highlight tape), to mid tech, (such as recording devices, timers, calculators), to high tech, (such as computers, video cameras, personal digital assistant, or complex voice output devices), can increase positive outcomes for students with ASD (WATI, 2003).

- Occupational Therapy Specific: Sensory supports, such as the ongoing provision of materials and activities for students with ASD to modulate sensory responses, (compression items, music, headphones, calming area, rocking chair, opportunities for rhythmic sustained movement, oral stimulation opportunities, personal fan, seat cushions) and environmental accommodations, such as the use of natural light, lower levels of lighting, incandescent rather than fluorescent bulbs, or seat placement by a window, can increase student self-regulation, decrease display of challenging behaviors, and maximize engagement in instruction (Miller, 2006). However, it is important to look beyond observable behavior to consider internal drives and experiences (Leadbitter, et.al., 2021). An under-appreciation of the sensory and emotional experiences of neurodivergent children can result in attempts to reduce or eliminate natural coping and self-regulation strategies, such as repetitive motor mannerisms or "stimming" behaviors (Bascom, 2012; Kapp et al., 2019). Eliminating such behaviors can lead to children being unable to avoid aversive experiences, calm themselves, or to communicate intense emotions (Kapp et al., 2019).

- For some students with ASD, verbal skills may be limited or nonexistent. SLPs should work with IEP teams to determine if there is a need to augment expressive communication. As with other disabilities, this may be accomplished using:
    - Sign language or an agreed upon set of physical gestures.
    - Picture or text communication system.
    - A speech generating device.
    - A combination of any of the above.

Chapter Eleven: Assistive Technology

Introduction

The increase in the availability of technology in general education, in conjunction with the IDEA's delineation of the school's responsibility to provide assistive technology (AT) in the educational setting, has had a significant impact for students with disabilities. It has increased the availability of appropriate AT services and devices for these students to ensure their participation in both academic and social communities. The use of AT can enable a student to:

- Increase access to and participation in the general education curriculum,
- Increase productivity,
- Expand educational/ vocational options,
- Improve communication opportunities and effectiveness,
- Reduce the amount of support services needed, and
- Increase levels of independence.

A. Assistive Technology and the Special Education Process

Every IEP team must consider whether the student requires AT devices and services and how such devices and services will be provided as needed. An AT device may be defined as any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a student with a disability. The term does not include a medical device that is surgically implanted, or the replacement of that device. An AT service may be defined as any service that directly assists an individual with a disability in the selection, acquisition, or use of an AT device.

These definitions are general and allow IEP teams the flexibility that they need to make decisions about appropriate AT for individual students. These technology solutions include a wide range of no-tech, low-tech, mid-tech, and high-tech devices, hardware, software, and other instructional technology tools that the student's IEP team may identify as necessary for the provision of FAPE. The team's considerations should not be limited to the devices and services currently available within the district but should include the most reliable and standard equipment available to meet the specific and unique needs of that student.

B. Assistive Technology Teams

The scope of knowledge and amount of service that is required for the successful consideration, assessment, and implementation of AT services is so broad and intensive that it requires a collaborative team approach. Potential members of an AT team include the SLP, occupational therapist, physical therapist, special education teacher, general education teacher, and AT specialist. Those knowledgeable in the area of AT should participate in the evaluation, eligibility (for the AT service), as well as participate on IEP teams whenever AT for the student is being discussed.

C. Assistive Technology Assessment

The following series of questions can guide assessment and IEP teams as they consider the need and type of AT:

- Does the student have any existing AT? If so, are the devices being used to their maximum benefit?
- What are the functional and academic areas of concern and what tasks is the student expected to complete (consider communication, instruction, participation, independence, productivity, and environmental control)?
- What should the student be able to do that is difficult or impossible to do at this time?
- What are the environments the student will be in (e.g., classroom, lunchroom, playground, gym, home)?
- What type of AT would be appropriate for the student?
- Are additional AT services needed to enable the student to use the device? (Customizing and maintaining devices, coordinating services, and training the student, family or educational personnel should be considered.)
- What is the schedule for reviewing progress toward the goals and objectives that involve AT?

Documentation of Assistive Technology within the IEP:

- Assistive technology must be justified in the Present Levels of Academic Achievement and Functional Performance.
- Assistive technology must be checked as on one the Special Factors.
- Listed in the accommodations or services section of the IEP (an accommodation refers to how the student learns or responds to a task such as a student may retell stories, but will tell them using a communication device).
- A supplementary aid if its presence (with other necessary aids) supports the student sufficiently to maintain the placement, and its absence would require the student to be placed in a more restrictive setting.
- A related service, such as physical therapy or speech-language services, if the services are necessary for the student to benefit from his or her special education. For a student to be successful in using AT, he or she must be trained in its use. Training to use a computer, an augmentative communication device, or other similar devices can occur as a related service or supplementary service that supports the student's educational program.

D. Periodic Review

To ensure there is no device "abandonment" the following question can serve as reminders of the importance of AT for the student. Is the AT device and/or service effective in its purpose, being utilized as planned and/or in need of reevaluation of appropriateness? AT team members will also need training to keep their knowledge and skills current. This may be provided through participation in regional, state, or national training opportunities; distance education, including Web-based training; or self-study. When a student with disabilities uses AT to perform either in the classroom setting, community-based instruction, or to accomplish activities of daily living, the IEP team should consider the use of AT in transition planning.

Effective transition planning involves a collaborative effort that involves the participation of the student, parents, and professionals from the educational setting and community agencies working together to ensure that the AT needs of the student are addressed so that the student's level of independence and function is maintained in the post-school setting.

Chapter Twelve: Auditory Processing Disorders

Introduction

The central auditory nervous system develops and matures through at least age twelve. Generally, people with auditory processing disorders develop symptoms at an early age and may continue to experience difficulty with auditory tasks as they mature. Auditory processing disorder is not one of the thirteen federal disability categories outlined in the IDEA. To be eligible for services under the IDEA as a "child with a disability," the student must exhibit the characteristics of one of the existing thirteen disability categories, demonstrate an educational impact and, as a result, require specialized instruction. Students with auditory processing disorders must meet the South Carolina criteria for eligibility in at least one disability category.

It is important to note that auditory processing is separate from language comprehension and is not a hearing acuity impairment. While children may have a clinical diagnosis of Auditory Processing Disorder (APD) or Central Auditory Processing Disorders (CAPD), the journal article Characteristics of Auditory Processing Disorders: A Systematic Review (de Wit et. al., 2016) concluded that current empirical evidence does not support APD as a specific auditory condition. The authors reviewed forty-eight published studies and suggest that intervention efforts should be "focused on cognitive or language skills rather than only auditory functioning" (p. 408). Auditory processing disorders and language disorders often share common characteristics, including difficulties with attention, academic achievement, and social interaction (refer to Table 21.). Due to the overlap between these impairments, evaluation teams should be mindful that these deficits may or may not be indicative of language disorders, auditory processing disorders, or co-occurring disorders of both language and auditory processing.

A student with a potential auditory processing disorder may have difficulty in one or more of the following areas:

- Auditory attention – the ability to focus on an auditory signal (speech or non-speech),
- Auditory memory – the ability to remember information presented auditorily, either immediately or after a delay,
- Auditory discrimination – the ability to hear differences between sounds (speech or non-speech),
- Auditory figure-ground problems – the ability to attend to the primary auditory message in the presence of competing auditory signals (e.g., background noise, other speakers), and
- Auditory cohesion – the ability to integrate information gathered auditorily.

Table 21. Overlap Between Auditory Processing Disorders, Attention Deficit Disorders, and Speech-Language Impairments

Behavior	Auditory Processing Disorder	ADD, ADHD	Speech-Language Impairment
Attention Concerns			
Distractibility	X	X	X
Difficulty listening	X	X	X
Difficulty understanding verbal information	X	X	X
Poor attention to auditory detail	X	X	X
Poor attention to visual detail		X	
Forgetfulness of routines		X	
Short attention span		X	
Need for repetition of information	X	X	X
Appears to 'daydream'	X	X	
Appears to lack motivation	X	X	
Delayed response to verbal requests	X	X	X
Frequently says, "Huh?" or "What?"	X	X	X
Often misunderstands what is said	X	X	X
Poor short-term memory	X	X	
Hyperactivity, Impulsivity and Emotional Concerns			
Fidgety - active hands and feet		X	
Often leaves seat		X	
Excessive movement		X	
Difficulty playing quietly		X	
Talks excessively		X	
Blurts out answers		X	
Restlessness	X	X	
Irritability		X	
Poor social interactions		X	X
Difficulty awaiting turn		X	
Interrupts or intrudes with others		X	X
Academic Achievement			
Difficulty following verbal instructions	X	X	X
Difficulty identifying, blending, and manipulating sounds	X	X	X
Poor receptive and expressive language skills	X		X
Deficits in reading, writing, or comprehension	X	X	X
Decreased performance in noisy environments	X	X	X
Difficulty completing work		X	
Worry about academic performance	X		X
Frequently loses or misplaces items		X	
Poor organizational skills		X	

Adapted from Chesterfield County Public Schools, 2000.

A. Evaluation of Auditory Processing Disorders

When a child is referred for an evaluation to determine special education eligibility due to a diagnosis of auditory processing disorder or a potential disorder, and the special education team decides to move forward with an evaluation, they should consider certain assessment measures and medical information about the child. The following procedures are offered as a best practice approach to completing an assessment of a child suspected of having an auditory processing disorder.

- Review developmental and student records. Identify onset of symptoms, developmental characteristics, and educational background. Review current medications and possible effects on performance.
- Select evaluation components to assess the student's strengths and weaknesses in cognition, attention, and language.
- Gather sufficient assessment data to allow for analysis of all auditory skills (attention, memory, discrimination, figure-ground, and cohesion).
- Refer for an audiological evaluation to be conducted by a licensed audiologist with experience working with school-age children.
- Use questionnaires, checklists, and interviews to gather input from teachers and parents regarding student performance, distractibility, attentiveness, and compensatory strategies in both quiet and noisy settings.
- Complete multiple classroom observations with special attention to the following areas: classroom noise (i.e., in-class, outside-class reverberation), proximity to teacher, and comparison with other students in the class.

B. Management of Auditory Processing Disorders

Regardless of the eligibility determination, students with an auditory processing disorder will benefit from a multidisciplinary team approach to management. The team may include the general and special education teachers, SLP, school psychologist, audiologist, and parent. Team members should recognize the significant overlap in the presenting characteristics of attention deficit disorder (with or without hyperactivity), speech-language impairment, and auditory processing disorders. It is important to address and rule out other common disabilities that may impact student performance (refer to Table 21). However, it is also important to note that auditory processing disorders may or may not occur comorbidly with other conditions, including those listed above.

An evidence-based systematic review of twenty-three articles provided analysis of the research findings and revealed "no compelling evidence that existing auditory interventions make any significant contributions to auditory, language, or academic outcomes of school-age children who have been diagnosed with APD or language disorder" (Fey et. al., 2011). Children with auditory processing disorders benefit most from management of environmental modifications, and development of compensatory strategies. The following summarizes some key management strategies that may be implemented for students in general or special education programs:

- Place the child away from noise sources and within six to eight feet of the speaker.
- Work one-on-one or in small groups.
- Reduce or eliminate background noises (e.g., audiovisual equipment).

- Keep doors and windows closed to reduce outside and hall noise; place windows and doors to the child's back to put the noise behind the child.

C. Environmental Modifications and Strategies

Environmental modifications may be provided to students in general and special education programs. One common example of environmental modification is the use of sound absorbers in the classroom to reduce sound reverberation (e.g., curtains at the windows, acoustical tile ceiling, carpeting or pads/tennis balls on chair legs for non-carpeted floors, sound absorbing room dividers and bulletin boards).

There are a variety of strategies that may be implemented to assist a student in compensating for or improving skills related to the auditory skill weakness. These strategies may also be effective in supporting language difficulties and attentional concerns. Examples of strategies include:

- Develop a habit of previewing (announcing content), stating (presenting content), and reviewing (summarizing content).
- Teach the child how to advocate and manage his/ her placement within the classroom to reduce the impact of noise.
- Teach the child how to maximize their visual strengths to compensate for auditory weaknesses.
- Consider the use of a personal or classroom FM auditory trainer (best used on a trial basis with pre- and post-testing to determine the effectiveness).
- Teach the child to ask for clarification; to get organized and maintain a neat desk and calendar; to study aloud (when not interfering with others); to repeat what was said, to take accurate notes, using key words/concepts; and to note communication clues (teacher's voice, time of day, setting).
- Teach memory enhancement activities (e.g., imagery, mnemonics, and drawing).
- Instruct the student in phonemic awareness, sequencing training, and language building exercises.

These strategies may be provided to students regardless of their special education status and may be implemented by the classroom teacher (especially environmental strategies), educational audiologist, SLP, or other specialist. Strategies should be addressed, as appropriate, in the child's IEP or 504 plan.

Chapter Thirteen: Pediatric Feeding Disorders/Dysphagia

Introduction

According to the ASHA, eating and drinking are part of every student's school day and contribute to readiness to learn. Therefore, intervention to facilitate safe swallow and efficient intake during meals and snacks facilitates nutrition, health, and helps to increase a student's ability to participate in curricular and extra-curricular activities. While pediatric feeding disorder and/or dysphagia is not a disability category under the IDEA, most children with feeding and swallowing difficulties have multiple disabilities, specialized health needs, and medically fragile conditions (ASHA, 2000; Kurjan, 2000) and may have a classification under the IDEA as Other Health Impairment (OHI). It is unlikely that a child with feeding and swallowing difficulties would be found eligible for special education solely under the category of speech-language impairment (Power-deFur & Alley, 2008).

The following statements illustrate the educational relevance of feeding and swallowing disorders in schools (Power-deFur, 2000):

- Students must be safe while consuming food and drinks at school. This means access to appropriate programming, personnel, food, and procedures that promote safe swallow.
- Proper nourishment and hydration are needed in order for students to access the curriculum.
- Keeping students healthy (free from aspiration pneumonia or other illness related to poor nutrition) maximizes their school attendance.
- Students must develop skills for eating efficiently during meals and snack times so that they can complete these activities with their peers safely and in a timely manner.

A. Key Terms

Pediatric feeding disorder (PFD) is impaired oral intake that is not age-appropriate and is associated with medical, nutritional, feeding skill, and/or psychosocial dysfunction (Goday et al., 2019). Dysphagia is a disorder in swallowing, resulting in difficulty moving food through the mouth and into the stomach and can be subcategorized into oral preparatory, oral, oropharyngeal, pharyngeal, and/or esophageal dysphagia (ASHA Practice Portal, 2021). The number of children requiring management for PFD and/or dysphagia within the school setting is growing, with conservative estimates that 2.3 million children under the age of five in the United States are impacted annually, or on average one in thirty-seven children (Manikam R & Perman JA., 1996). When a child has a diagnosis of PFD and/or dysphagia, skilled intervention and therapy are warranted to mitigate the risks for aspiration and, infections that can lead to chronic lung disease, dehydration, and poor nutrition, all of which can significantly impact developmental progress (ASHA Practice Portal, 2021).

While both a PFD and dysphagia, in isolation or together, can affect the child's ability to be safe while eating at school, to be adequately hydrated and nourished so they can fully attend in order to access the curriculum, and eat efficiently during meals/snack times with their peers in a safe and timely manner, there is another key term to be aware of. Avoidant/Restrictive Food Intake Disorder (ARFID). ARFID can be defined as a disturbance in eating that is restrictive in nature and not caused by the unavailability of food, a cultural practice (e.g., religious fasting), physical illness, medical treatment (e.g., radiation therapy, chemotherapy), or another eating disorder

(e.g., anorexia nervosa or bulimia nervosa) (Attia & Walsh, 2020). ARFID is typically developed during childhood and symptoms include lack of interest in food, limited food intake, and avoidance of certain foods out of fear of texture, smell, appearance, and/or feelings of fear around a certain food which may cause them to feel sick, vomit or choke (Lesser, 2021). ARFID is often associated with a psychiatric co-morbidity, especially anxiety and obsessive--compulsive disorder (Kambanis, E.P., et al., 2020). While caregivers may describe their child as simply being an extremely picky eater, the research shows that the cause of ARFID may be biological (Thomas, J., et al, 2017). It is for those reasons that ARFID must be diagnosed by a pediatrician or a psychiatrist and is outside of the scope of practice of an SLP to diagnose.

B Multi-Disciplinary Team Approach

According to ASHA Guidelines for Speech-Language Pathologists Providing Swallowing and Feeding Services in Schools (2007), the diagnosis and treatment of swallowing and feeding disorders in the schools requires both a school-based team and a medical-based team, which must work together to establish safe feeding for the student. A true interdisciplinary approach involves each member of the group sharing the philosophy for diagnosis and treatment, in addition to being willing and able to work with other team members within the group (Arvedson & Brodsky, 2002). It involves every member of a group of professionals contributing his/her specific area of expertise. This collaborative effort is essential (Homer, 2009).

For each school, where a child with a diagnosis of PFD and/or dysphagia is located, a team needs to be in place that is uniquely equipped to meet the unique needs of students with PFD and/or dysphagia. LEAs may want to begin by creating a district wide feeding and swallowing team who will subsequently train team members at the individual school level. All teams should be comprised of the following individuals:

- speech-language pathologist*
- occupational therapist,
- physical therapist,
- school nurse,
- child's teacher(s),
- child's paraprofessional(s),
- school nutrition director,
- cafeteria manager,
- principal or school administrator, and
- most importantly, the student's parent/caregiver

Note: Most schools have a list of Cardiopulmonary Resuscitation (CPR) trained staff within their schools. It is important to ascertain where trained staff members are in relationship to the student(s) with PFD and/or dysphagia.

*The ASHA provides guidance on a variety of speech-language related disabilities including PFD and/or dysphagia in order to "ensure the welfare of the consumer and to protect the reputation and integrity of the professions". Part of this guidance include a directive that "individuals who hold the Certificate of Clinical Competence shall engage in only those aspects of the professions that are within the scope of their professional practice and competence, considering their certification status, education, training, and experience (ASHA Code of Ethics,

2016).” Therefore, only persons possessing a competent level of education, training, and experience should conduct assessment and intervention in the area of PFD and/or dysphagia. This may require additional training, consultation, coaching or, in some cases, shadowing an SLP with extensive experience in this area (Power-deFur, 2000). In addition, collaboration and consultation with a person outside the LEA, such as a community based SLP, may be required to ensure the student’s safety.

The goal of the school-based swallowing and feeding team is twofold. The first and foremost goal is for the child to receive adequate nutrition and hydration at school in a safe manner (ASHA, n.d.; Homer, 2008; Homer, Bickerton, Hill, Parham, & Taylor, 2000). The second goal is for students to tolerate optimal diet textures. Professionals within the school-based feeding and swallowing team should work together to establish safe and efficient feeding that allows the student to participate with peers during mealtimes and support the student’s access to the curriculum. Moreover, when parents/caregivers are involved in the process, students are likely to progress more quickly and there is often improved carry-over to the home setting (Angell, Bailey, Nicholson, & Stoner 2009).

C. Interprofessional Partners

Based upon the findings from the clinical swallow evaluation, a medical referral to a community based allied health member and/or medical practioner may be warranted. The following list describes common interprofessional practice partners engaged in the care for a student with a PFD and/or dysphagia:

- Allergists
- Durable Medical Equipment Providers
- Gastroenterologists
- Occupational Therapists
- Otolaryngologists
- Physical Therapist
- Psychologists
- Pulmonologists
- Registered Dietitians
- Non-School-Based Speech-Language Pathologists (for instrumental evaluations and from specialty clinics)

Team members should maintain communication with outside medical providers (e.g., SLPs, radiologists, and other physicians). The school SLP is often the one to communicate with the radiologist regarding the results of the modified barium swallow and with any other SLP who provides services to the child. At times, the child’s physician will issue an order associated with the student’s health care needs, including dysphagia. The school nurse typically is the team member who ensures that these standing orders (or general orders) are carried out. District personnel should be careful to follow all recommendations for diet and/or feeding that are provided by outside medical providers. The feeding and swallowing team and the district’s legal counsel should discuss liability issues associated with providing dysphagia services (Power-deFur & Alley, 2008). The members of the IEP team including members of the PFD and/or dysphagia team should stay in close contact with the student’s parent/caregiver and physician, in addition to educating the staff on the symptoms and support available within the school. The

team lead/case manager should liaison monthly with the student's physician for improved continuity of care with respect to medical and nutritional changes. Ideally, the team lead/case manager should also be responsible for educating other school staff (principals, teachers, central office administrators) about PFD and/or dysphagia (its definition, treatment, and educational relevance).

D. Parents/Caregivers as an Integral Member of the Team

Because feeding and swallowing safety is as critical outside of the school environment as it is within the school environment, it is important for parents/caregivers to be active members of the IEP team. It is recommended that the SLP and/or other appropriate members of the feeding and swallowing team work closely with the family. An IEP goal should be included on the IEP related to parent/caregiver training and plain language should be used to describe the goals. This should include educating the student's parent/caregiver on their role in providing the intervention with the student and the purpose of each activity. It should also include explaining the student's swallowing and feeding plan. For example, if the student's plan includes cues for pacing bites, train the parent/caregiver to gradually fade the cues so that the student becomes more independent. Documentation of document how and when parent/caregivers were trained as well as observations of the parent demonstrating recommended strategies is recommended. In addition to providing training verbally and via modeling, it is also recommended to provide the parent/caregiver with written directions and support as well that can be referred to often in the home.

Services and supports provided to students with disabilities may also include parent/caregiver training for safe swallowing and feeding, such as:

- Appropriate food textures and consistencies.
- Ways to modify food and liquids for safe intake.
- Appropriate positioning for safe swallow.
- Proper use of feeding equipment such as low-flow cups and curved spoons for safe intake (note that the district must provide adaptive equipment for the student regardless of whether they are attending school on campus or virtually).

E. Symptoms at School

It is important for all members of the feeding and swallowing team to look for specific symptoms of PFD and/or dysphagia and monitor students closely on an ongoing basis for these symptoms. Estimates are that 40 percent (Ramsey, Smithard, & Kalra, 2005) to 94 percent (Arvedson, J, 1994) of those with dysphagia aspirate silently (i.e., they do not sense when food/liquid go down the wrong tube) and in trace amounts. Therefore, even if there is no overt sign or symptoms of aspiration that does not mean that aspiration is not occurring. SLPs, occupational therapists, physical therapists, nurses, teachers, caregivers, and paraprofessionals should be observant of the following symptoms:

- Overt signs of aspiration, such as coughing, choking, and gagging.
- Difficulty chewing and moving the food from the front to the back of the mouth,
- Pocketing (food getting stuck in the cheeks of the mouth), food falling from the mouth.
- Complaints of food "getting stuck in the throat".
- Recurrent aspiration pneumonia or upper respiratory infections.

- Significant weight loss with resulting fragility or difficulty gaining/maintaining weight.
- Reduced alertness and attention in the classroom.
- Reduced strength and vitality.
- Weakened health status.
- Frequent, prolonged absences due to health issues; and
- Limited social interaction and communication during meals or snack time.

F. Support at School

Any school staff member or caregiver who observes some or all of the aforementioned symptoms and has concerns about the child's feeding and swallowing should make a referral to the feeding and swallowing team. A member of the team will then complete an observation of the student eating in a natural setting and complete a cursory investigation regarding these concerns. For this purpose, the Feeding Matters' innovative Infant and Child Feeding Questionnaire® (ICFQ©) (Table 22) may be utilized. The ICFQ© is a free, evidence-based, online tool from Feeding Matters designed to identify potential feeding concerns and facilitate discussion with all members of a student's healthcare team. The ICFQ© has been shown to accurately identify and differentiate PFD from picky eating in children birth to four years of age based on caregiver responses (Silverman AH, Kristoffer BS, Linn C, et al., 2020). The ICFQ© is able to be used with older students while keeping in mind that after thirty-six months of age all feeding skills should be mature.

Table 22. Infant and Child Feeding Questionnaire® (IFCQ)

Does your child let you know when they are hungry?	Yes	No	
Do you think your child eats enough?	Yes	No	
How many minutes does it usually take to feed your child?	Less than five minutes	Five to thirty minutes	Thirty minutes or more
Do you have to do anything special to help your child eat?	Yes	No	
Does your child let you know when they are full?	Yes	No	
Based on the above questions, do you have concerns about your child's feeding?	Yes	No	

*Red flag answers are in gray. Two or more red flags would indicate a need for further evaluation.

After gathering this preliminary information, the team should meet to review all data and consider whether or not to proceed with a comprehensive evaluation for feeding and/or swallowing. As part of this meeting, the student's parents/caregivers should be asked to share their observations and concerns seen in the home. A list of questions for the IEP team are included in the Table 23 at the end of this chapter. As part of the evaluation process to meet the student's identified needs, additional assessments may include but are not limited to a medical referral to receive an instrumental swallow evaluation such as a modified barium swallow study or flexible endoscopic evaluation. In addition, a consultation or evaluation by the physical therapist to assess any positioning concerns as well as consultation or evaluation by the occupational therapist to assess any fine motor or adaptive equipment needs, and/or collaboration with a registered dietician regarding diet changes.

In the event that the student comes to the LEA with a past medical history that includes a current or prior PFD/dysphagia diagnosis, a member of the feeding and swallowing team should collaborate with current or prior PFD and/or dysphagia community team members to continue current plan of care or reestablish treatment.

According to the ASHA, if a student already has an established swallowing and feeding plan, then services in the school setting typically include the following:

- Ongoing collaboration with non-school based professionals.
- Implementing a safe swallowing and feeding plan during mealtimes at school.
- Providing education and training to students, families, and school staff on safe swallow strategies.
- Training classroom or cafeteria staff to modify student's food and liquids to meet the swallowing and feeding plan recommendations.
- Maintaining safe mealtimes at school with ongoing monitoring and consultation with classroom staff.
- Training classroom staff to recognize signs and symptoms of aspiration as well as changes in a student's feeding and swallowing skills and immediately report those changes to the team.
- Training students to self-advocate for appropriate food and liquid consistencies.
- Revising a swallowing and feeding plan when changes are warranted.
- Collaborating with parents, physicians, related service providers, and food services staff.
- Intervening therapeutically, when indicated, to improve functional eating skills and to ensure a safe swallow.

G. Evaluation

When considering possible assessment in the area of feeding and/or swallowing, it is important to establish the purpose of the assessment; is the purpose of the assessment to determine safety with oral intake and/or to consider modifications or strategies prior to making recommendations? When safety is a concern and there is suspicion of aspiration, the student must receive a medical assessment related to structure, function, and other contributing factors that impact feeding and swallowing. This may include collaboration with an allergist, ear-nose-throat specialists (ENT), gastroenterologist, psychologist and/or psychiatrist. This is critically important for the safety and well-being of the student as well as to make appropriate recommendations for intervention and/or accommodations.

When there are concerns related to oral preparation, oral-motor coordination, and or sensory related concerns for solid foods and/or texture progression, a tableside assessment may be appropriate pending the determination of whether or not there are symptoms that are characteristic of aspiration.

Regardless of the type of concern, observation and evaluation by the feeding and swallowing team documenting the student's reactions to different foods, textures, and liquid consistencies, positioning, and/or other sensory and behavioral observations are important in order to make appropriate recommendations (e.g., positioning, equipment, diet/food preparation, food and liquid consistency, and precautions such as foods to avoid, amount of food per bite, etc.).

According to Elisabeth D'Angelo, professor California State University-Sacramento and SLP with the University of California Davis Medical Center in her 2018 article, "Dysphagia and Feeding for Speech-Language Pathologists in the Schools: A Team Approach", there will be cases when in order to proceed safely with the student's mealtimes at school, the team will need a current videofluoroscopic swallow study (VFSS). The referral for a VFSS is driven by the needs of the school system to evaluate students' swallowing and feeding abilities adequately so that the students will receive the appropriate special services needed to participate successfully in their educational program. In these cases, the school system may need to assume financial responsibility for the VFSS. This requirement is due to the limitations of tableside evaluations which include the inability to observe aspiration and the fact that pharyngeal abilities are difficult to gauge. If there are concerns about the student's swallowing ability, it may be that a modified barium swallow study (MBSS), also known as a videofluroscopic swallowing study (VFSS), should be recommended. This is an ethical requirement based on ASHA's Scope of Practice and these evaluations cannot be completed in the school setting.

According to the ASHA, if the school team determines that a medical assessment, such as a videofluoroscopic swallowing study (VFSS), flexible endoscopic evaluation of swallowing (FEES), sometimes also called fiber-optic endoscopic evaluation of swallowing, or other medical assessment, is required during the student's program, the team must work with the family to seek medical consultation and/or referral. A written referral or order from the treating physician is required for instrumental evaluations such as VFSS or FEES.

Instrumental evaluation is conducted following a clinical or tableside evaluation when further information is needed to determine the nature of the swallowing disorder. Instrumental assessments can help provide specific information about anatomy and physiology otherwise not accessible by non-instrumental evaluation. Instrumental evaluation can also help determine if swallow safety can be improved by modifying food textures, liquid consistencies, and positioning or implementing strategies.

An MBSS/VFSS is indicated when there is

- a need to observe oral preparatory, oral transit, pharyngeal, and/or esophageal phases of swallowing;
- a diagnosed or suspected presence of abnormalities in the anatomy of nasal, oral, pharyngeal, or upper esophageal structures that would preclude endoscopic evaluations;
- an aversion to having an endoscope inserted;
- the presence of a respiratory disorder;
- the presence of a persistent feeding refusal problem for which a swallowing disorder might be a contributing cause; or
- the need to determine treatment or management strategies to minimize the risk of aspiration and increase swallow efficiency (Arvedson & Lefton-Greif, 1998).

In addition to the general indications for instrumental evaluation, the following indications are specific to FEES:

- sensitivity to increased difficulty with swallowing over the course of a meal secondary to suspected fatigue
- sensitivity to velum function for hypernasality and/or suspected nasal regurgitation

- need for visualization of the hypopharynx/larynx for biofeedback and/or rehabilitation
- need to assess vocal fold dynamics or the laryngeal adductor reflex (LAR) related to swallow function
- documented pharyngeal dysphagia on a videofluoroscopic swallowing study that can be retested with endoscopy to monitor progress, directly assess pharyngeal and laryngeal anatomy, and/or limit radiation exposure
- suspected or observed difficulty with swallowing saliva/oral secretions
- inability to tolerate contrast media (e.g., barium, iohexol) due to allergy or aversion
- concerns or safety issues associated with radiation exposure
- patients' inability (e.g., patients on ventilators, or inability to leave the bedside because of mobility and/or postural deficits)
- difficulties with obstructed fluoroscopic viewing (e.g., patients wearing a halo, patients wearing a cervical collar)
- limited access to radiologic equipment

As part of the comprehensive evaluation of feeding and/or swallowing and specific to conducting a formal clinical swallow assessment, the following evaluation tools are freely available from the Practice Portal from the American Speech-Language-Hearing Association: Pediatric Feeding Evaluation: Liquids Only as well as Pediatric Feeding Evaluation: Liquid, Pureed, Solid.

PFD and/or dysphagia must be evidenced by the following components within an evaluation:

- Written documentation of a current swallow study to include documentation of:
    - The presence of PFD and/or dysphagia.
    - How the PFD and/or dysphagia impacts student safety when eating and/or drinking as well as the provision of adequate nourishment and hydration to support the attention needed to fully access the curriculum.
    - Recommended diet to minimize risk of aspiration.
    - Feeding techniques to minimize the risk of aspiration.
    - Risks with adaptive guidelines (mild, moderate, severe).
    - Risks without adaptive guidelines (mild, moderate, severe).
    - Explicit plan of care recommendations signed by the medical provider and/or patient's physician.
    - Special Consideration(s) for whether the diet is managed and not advanced

Note: A 504 plan may be considered if PFD and/or dysphagia is the only area of impairment or concern.

H. Intervention

As Arvedson and Homer point out in their article, "Managing Dysphagia in Schools (2006)", knowledge of the causes of feeding and swallowing problems for each student is critical for determination of prognosis as a part of planning intervention. Systems that must be considered in the student who is medically fragile include the airway, nutrition, and hydration status, gastrointestinal tract, neurodevelopmental status, as well as responsiveness to oral feeding attempts (sensory and behavioral) when and if the student is safe for oral feeding.

Airway

All interventions to enhance oral feeding require a stable airway. In cases of airway problems, the work of feeding may not be possible since the work of breathing takes precedence. SLPs should note the status of breathing (quiet or noisy, nasal breathing with lips together or mouth open, inspiratory stridor, gurgly sounds that may be a sign of secretions in the supraglottic airway), need for oxygen, or presence of a tracheostomy. Children with major airway issues may have a nurse or assistant with them at school who's responsible for their well-being. Parents are the primary source for information related to special considerations needed for their children. Treatment by the SLP or any other therapist must never jeopardize the health and well-being of a child.

Nutrition and Hydration Status

Students in preschool and early elementary education should gain weight steadily, although not as rapidly as in the first two years of life. A lack of weight gain over a period of a few months is considered similarly to weight loss in older children and adults. Constipation is a frequent consequence of inadequate nutrition, especially reduced fluids and fiber and these children may not want to eat. Medications can also have an effect on nutrition and appetite. Members of the feeding and swallowing team should know the medications that children are taking, along with possible side effects. Related professionals do not make medication recommendations but note changes in a child's level of alertness in school as well as check with parent/caregivers about changes in sleeping patterns. In preteen and teen years, a child's nutrition needs change, usually requiring increased caloric intake. Some students may require supplemental nutrition. Individualized plans are essential to ensure these issues are addressed.

Gastrointestinal (GI) Status

Members of the feeding and swallowing team should monitor students closely for signs of GI problems. In the case of known GI concerns, they can communicate with the student's physicians on a regular basis to update status and to note concerns. Gastroesophageal reflux (GER) is common in children, but manifestations of GER may be variable and typically vary over time. Although the manifestations of GER are due to effects of gastric acid, abnormalities of motility and sphincter function cause GER. Complications can vary considerably from recurrent emesis/vomiting, malnutrition, and esophagitis with food refusal. For example, some children vomit intermittently and keep eating without any decrease in appetite or hunger. Other children may vomit only occasionally, but they get stressed and may need to be seen by their physician to determine underlying causes and the best course of treatment. It is not within the scope of practice for SLPs to diagnose or manage GER in any setting, although they may initiate referrals.

Neurodevelopmental Status

Students with developmental delays or deficits should have management plans that address their developmental skill levels, not their chronologic age. Students with defined brain damage (e.g., stroke, brain tumor, traumatic brain injury) and other neurological deficits (e.g., muscular dystrophy, cerebral palsy, etc.) are usually at higher risk for aspiration with oral feeding, particularly on thin liquids (Arvedson, Rogers, Buck, Smart, & Msall, 1994). Members of the dysphagia team in consultation with parents and the child's physician may make a recommendation for a videofluoroscopic swallow study when information regarding the physiology of swallowing would be helpful.

Responsiveness to Oral Feeding Attempts

Some students have had significant medical/surgical issues when they were younger but are medically and surgically stable by the time they present to the school feeding and swallowing team. However, they may not eat and drink as expected for children of their age and skill levels. Other children without a significant medical/surgical history may eat selectively and sparingly. Oral sensorimotor skills may be primarily delayed or disordered, usually in combination and not in isolation. Problems are not typically strictly motor or sensory, but behavioral responses related to past experience with being "forced" to eat and drink. There may be refusals, such as pushing a spoon or cup away as it approaches the mouth, turning the head away from the feeder, throwing food, getting upset, or throwing a tantrum. SLPs can assist in determining the best means of communication and the development of methods to build on what the student does independently or with minimal assistance.

I. Accommodations

Students with PFD and/or dysphagia likely do not eat and drink as efficiently nor at the same pace as their peers and may consequently require accommodations and/or environmental modifications. Since the hours in the school day are limited, so are the schedules for snack time and lunch. Often, students are allowed only ten to fifteen minutes for snack and twenty-five minutes for lunch. For a student with PFD and/or dysphagia this may not be enough. Therefore, advanced preparation is likely necessary. Events surrounding food and/or drinks and must be carried out according to the IEP along with adequate time for safe and adequate intake as stated in the IEP.

As Emily Homer, SLP shares,

> *Most students eat school cafeteria food, so it is imperative that the feeding and swallowing team work closely with the school cafeteria manager and food service supervisor to provide the student with foods that can be prepared according to the IEP. The case manager can meet with the cafeteria manager to plan a menu for the student. The school lunch program is a federally funded program and therefore has very specific guidelines. Adaptations to the student's menu will need to meet federal guidelines. Many school lunch programs set a menu for one month, which then repeats the meals throughout the year with some minor changes each month. The feeding and swallowing team case manager and the cafeteria manager should identify foods that cannot be modified and substitute them with foods that can be adapted. For example, many students with dysphagia cannot have pizza because it may not puree well. The cafeteria can substitute the chicken that they had on Thursday for the pizza they will have on Friday. The same can be done for fruits, vegetables, and other menu items. These methods have been successful in providing students with dysphagia a safe, healthy diet. Once the student's menu has been selected, an area to prepare the food should be set up in the cafeteria kitchen for sanitary purposes. The classroom staff or the cafeteria staff will be responsible for modifying the food. The cafeteria will need to be equipped with a food processor or blender to puree the child's food when indicated. The dysphagia case manager should train the cafeteria or classroom staff on texture preparation and should*

monitor the texture of the food to ensure compliance with the swallowing and feeding plan (2009).

One of the most important environmental accommodations for students with PFD and/or dysphagia is the texture or consistency of food they receive each day. This may be one of the most overlooked and misunderstood modifications that should be monitored closely by parents and school staff members. In support of the IDEA and students with special dietary needs, the U.S. Department of Agriculture and Food Nutrition Service (2001) offers guidelines stating that any required modifications of food texture should be included in the IEP. Additional accommodations and environment modifications may include but not be limited to

- modified diet consistency such as mechanical soft, puree , nectar, or honey thickened liquids
- extended time allotted for meals and snacks
- more frequent small meals throughout the day
- limited distractions during snack or meal
- use of adapted cup, spoon, fork, plate, or bowl
- equipment for proper positioning as needed
- partial to total assist with intake including pacing of offered foods followed by liquids to clear oral cavity

J. International Dysphagia Diet Standardization Initiative

Because of different terminology, numbers, and levels when referring to dysphagia diet standards, it would be considered best practice to utilize the International Dysphagia Diet Standardization Initiative (IDDSI) terminology and definitions for texture-modified foods and thickened liquids to improve the safety and care of students with PFD and/or dysphagia. The IDDSI is supported by both the Academy of Nutrition and Dietetics and the American Speech-Language-Hearing Association. If a modified diet is required for the student, the school's nutrition director will need a doctor's order to modify the food items offered or the texture of the food offered as part of a school meal.

K. Individual Health Care Plan

An Individualized Health Care Plan should be developed and include student's medical history, results of the instrumental swallow evaluation, tableside evaluation, and/or additional input from medical practitioners in order to devise a feeding and swallowing plan for school in addition to a school emergency plan. This plan may be attached to the student's IEP. In some cases, the student will need direct intervention to develop their feeding/swallowing skills. In such a situation, an IEP meeting needs to be held to develop the goals of intervention.

As dysphagia is a health issue, the child's health needs should be addressed immediately. PFD and/or dysphagia requires direct and immediate intervention and should not wait for determination of special education eligibility. School health services should develop an individualized health care plan for children with health care needs as part of the standard of practice. District personnel should develop such a plan promptly whenever a child is identified as a student who requires feeding and swallowing services while at school. The health care plan can be incorporated into the child's IEP if the child later is found eligible for special education. The

health care plan should include a description of the child's medical history and current status, health care needs, medication, feeding and nutritional needs, transportation and restroom arrangements, and any specific procedures required to address the child's health care needs (Lowman & Murphy, 1999).

Districts should ensure that the student's IEP incorporates their health care plan (Lowman & Murphy, 1999). Swallowing and feeding goals may also be included directly on the IEP. As the health care plan will focus on medically related service needs, the IEP may address social and cultural aspects of swallowing and feeding. For example, goals associated with developing appropriate swallowing and feeding behavior and eliminating maladaptive eating behaviors may be more appropriate for the IEP than the health care plan (Power-deFur & Alley, 2008).

L. Key Considerations

1. Create a list of roles and responsibilities of each team member with respect to the feeding and swallowing needs of the student (i.e. who is responsible for equipment cleaning and set up, who is responsible for food/liquid preparation, who is responsible for implementation of therapeutic recommendations while eating and/or drinking, who is responsible for implementing emergency procedures, etc.).

2. Each person providing food or drinks to the child should have a current copy of specific procedures related to student needs.

3. Document training for all personnel who will be feeding the student including substitute teachers and paraprofessionals. When a student has a feeding and swallowing plan that includes monitoring during mealtimes for safety, it is essential that classroom staff be trained on implementing the plan. At least three classroom staff members (including the teacher) should be trained on the plan in the event the main feeders are absent. If all three trained feeders are absent the school administration should have in place a list of qualified feeders such as the SLP or OT.

4. Due to the schools' responsibility for the safety and well-being of students during school hours on school property and during school-sponsored activities, schools should have written procedures and policies for managing first aid emergencies especially actions to be taken in the event that a child aspirates.

5. Team members serving children with dysphagia should pursue regular professional development in this area of practice (Power-deFur, 2000). Adherence to professional standards of practice is important in order to ensure that the practitioner is exercising a reasonable standard of care in their duties to the student.

Table 23. Feeding and Swallowing Related Questions

Possible Feeding and Swallowing Related IEP Team Questions	
Parent(s), Caregiver(s), Persons involved in feeding the child in the home	**1. When your child was *growing up*…** -Was there significant birth trauma? -Were there significant developmental difficulties or diagnoses such as failure to thrive, heart concerns, genetic concerns, etc.? -Has your child ever had surgery that required that they be put to sleep or use a breathing tube? -How frequently does did your child experience recurrent upper or lower respiratory illnesses or ear infections? -Is there a history of heartburn or reflux? -Has your child ever had a Nasogastric (NG) tube or other type of feeding tube? -Has your child previously been x-rayed to look at their swallow? -Did your child experience significant vomiting when they were young? -Was your child seen by a specialist such as an ENT, developmental pediatrician, allergist, endocrinologist and/or gastroenterologist? **2. How would you describe your child's *overall health today*?** -Is your child's height and weight considered average for their age? -Has the doctor expressed concerns about your child's ability to gain weight? -Has the doctor expressed concerns about your child's level of hydration? -How does your child's health vary one day to the next or over the course of the day? -Does your child have any allergies? -Does your child have chronic, frequent or consistent illnesses (i.e., upper respiratory infections, ear infections, etc.)? -Do you have any concerns about their bathroom cycle? **3. Regarding concerns with *feeding or swallowing at home*…** - At what age was your child introduced to solid foods? - At what age did they stop taking a bottle? - At what age did they stop taking a sippy cup? - What medicines is your child taking? - Does your child have difficulty breathing while eating or drinking? - Does your child have any food and texture preferences and/or intolerances? - Has your child ever refused to eat or drink? If so, when? - What does your child typically eat and drink for breakfast? - What does your child typically eat and drink for lunch? - What does your child typically eat and drink for supper? - What does your child typically eat and drink for snack? - How long does it take for your child to complete a meal? - What happens if you do not feed your child one of their requested items? **4. Describe the difficulties with feeding or swallowing at home…** - What this difficulty looks like? - What times of day do the difficulties occur? - What times of day do the difficulties not occur? - What locations does it occur and not occur? - Who do these difficulties occur with and who do the difficulties not occur with? - What types of food and/or liquids cause difficulty and which ones do not? - Which meals times are a challenge and which ones are not?

	- What strategies have you used and what were the outcomes? - Have you kept a food diary to note any consistent patterns such as preferences, aversions, preferred times of day, preferred adults or meal time partners, locations, seating/posturing, etc.
School Nurse:	**Does the student have an Individual Health Plan or any chronic health conditions that are followed and/or monitored by the school nurse?** - If so, what are these conditions, what do these conditions require of the school nurse, which physician provided those orders, how is the student tolerating these orders at the present time? - Have you noted any negative changes in status of the health of the student over time?
Classroom teacher or primary special education teacher (if in a self-contained classroom)	**1. Is the student making progress towards *grade level standards*?** If not, what is this attributed to? **2. During snack or mealtimes at school…** - Have you observed the student having difficulty getting food or liquids to the mouth? - Have you observed the student having difficulty chewing and/or moving food or liquid from the front to the back of the mouth and/or spilling from the front of the mouth? - Have you observed overt signs of aspiration, such as coughing, choking, a wet/gurgly vocal quality, gagging or frequent throat clearing? - Has the student ever expressed complaints of food "getting stuck in the throat"? - Does the student demonstrate limited social interaction and communication during meals or snack time? - Does the student spend an excessive amount of time on eating in comparison to peers? - How much time is allowed for the student have to eat lunch? - How long does the student have to eat snack? - Are the student's meals and snacks typically sent by the parent to the school or provided by the cafeteria? - Does the student appear to keep their mouth open or appear to be a mouth breather? - Does the student have access to adequate hydration throughout the day and are there any signs of difficulty while drinking? - Is the child allowed to go to the bathroom as often as needed/requested? - During the school day, do you notice any drooling or the student having difficulty swallowing their own saliva? - Has the student demonstrated any reduced alertness and attention in the classroom? - Have you noticed any reduced or weakened health status? - Is there documentation of frequent, prolonged absences due to health issues including upper respiratory infections or pneumonia?
All special education staff	**Is the student making progress towards <u>IEP goals?</u>** If not, what is likely this attributed to?
All IEP Team members	1. What data has been collected that suggests feeding or swallowing difficulties are impacting the student's ability to progress and access from the general education program and/or benefit from their special education program? 2. If data suggests feeding or swallowing difficulties that are impacting education, what additional information, if any, needs to be gathered to formulate specially designed instruction?

Chapter Fourteen: Students from Culturally and Linguistically Diverse Backgrounds

Introduction

According to the United States Census Bureau, nearly a quarter (23 percent) of school-age students speak a language other than English at home. Spanish makes up 77 percent of the most common languages spoken by English learners in the United States, followed by Arabic (2.3 percent), and Chinese (2.2 percent) (McFarland, 2017). In South Carolina, Spanish accounts for approximately eighty-one percent of the most common languages among multilingual learners and Russian accounts for approximately two percent while Arabic, Vietnamese, Chinese each account for a little over one percent (U.S. Department of Education, 2015). Acquiring a second language is a complex process involving intricate cognitive and social strategies (Preston, 2014). Effective assessment of students from linguistically and culturally diverse backgrounds presents a unique challenge to school districts as there is substantial overlap in the communication behaviors that occur within typical multilingual and dialectal language development and those that are demonstrated by monolingual English-speaking students with language disorders. Therefore, extra care must be taken to differentiate language differences from language disorders.

A. Utilizing a Team Approach

When supporting students from diverse linguistic and cultural backgrounds, the SLP should be part of an inter-disciplinary team that is made up of multilingual learner (MLL) teachers, other bilingual professionals, and/or qualified interpreters and translators, in addition to the traditional members of special education teams. This team will ensure that the relevant information is compiled, including immigration background (as appropriate) and information about the student's family culture, trauma (including exposure to war or other conflicts), length of time the student has been learning the English language, as well as the type of instruction and informal learning opportunities. The team should gather this information by interviewing the parents/caregivers, reviewing records, or by contacting staff from agencies or organizations that may be working with the family. In addition, the SLP should work with team members to become familiar with the cultural communication norms as well as the culture and communication style of the student through ethnographic interviews with the family and independent research and consultation with knowledgeable individuals.

B. Culturally and Linguistically Diverse Students and the Role of the SLP

The role of the SLP is not to make a student from a culturally and linguistically diverse background sound like a speaker of General American English Speaker (GAE). The role of the school based SLP is to remediate or improve a student's communication disorder such that it does not interfere with or deter academic achievement and functional performance (ASHA). However, because a "lack of cultural sensitivity may result in inadvertent overidentification by identifying dialectally and culturally acceptable productions as inadequate" (ASHA, 2010), it is important that SLPs work closely with school teams to develop school-wide cultural and linguistic practices. This collaborative effort should include having the SLP share unique features of a particular group of students' language and/or dialect as well as informing staff of specific cultural and linguistic differences. This type of cooperative effort supports school-wide efforts to assist students from culturally or linguistically diverse backgrounds with accessing and progressing with an educational curriculum that may be spoken or written in GAE while helping

students to maintain their cultural-linguistic differences. This is sometimes referred to as code switching or code meshing, but there are important differences in the two terms.

C. Code Switching vs. Code Meshing

Code switching refers to changing from the student's primary dialect to the dialect being spoken or written by a group of individuals to come across as similar sounding to those around them. This requires a change in speech and language patterns and, at times, behavior.

Code meshing, sometimes also referred to as "translanguaging", urges students to "write and speak in the dialect with which they are most comfortable as they integrate academic resources into that dialect" and "provides students not only with the grammar for a broad understanding of General American English (GAE), but also with knowledge required to respect and interact with individuals from a broader range of language backgrounds (Young, Barrett, & Young-Rivera, 2018)."

An example of how code meshing may be used effectively with students is to make use of metalinguistic skills for "thinking about your thinking", or in this case, to having students think and reflect on their own spoken or written language productions. This may take some initial guidance by adults to point out when the student appears to be meshing their dialect with GAE while also pointing out the difference between GAE and the student's dialect. However, this practice helps the student to become aware of the differences between their dialect and GAE which allows them to effectively mesh their unique dialect with GAE and results in a broader use and understanding of language. Ultimately, this benefits students from culturally and linguistically diverse backgrounds because they can express themselves in spoken or written language using the language, morphology, and syntax of their "choice and voice". These kinds of opportunities not only reduce inhibition and eliminate fear of speaking or writing something "wrong", but increase confidence in students because of their dialect being recognized and acknowledged as being unique and valuable.

D. Dual Language Acquisition

SLPs must understand both the first and second language acquisition process and be familiar with current information on the morphological, semantic, syntactic, pragmatic, and phonological development of students from a non-English language background. This information is important in order to distinguish a communication difference from a communication disorder in students from culturally and linguistically diverse backgrounds.

The primary goal for second language learners is to function as proficient learners in the classroom. Literacy skills will transfer automatically from the first language (L1) to the developing second language (L2) if the student has learned the academic skills (reading, writing, organization of information) in the "home" or first language. Some language learners experience a time, often referred to as a 'silent period' when they acquire receptive language skills before they are able to use the language expressively. In general, a reasonable length of time for the silent period is approximately two weeks. The silent period can stretch to more than six months (Preston, 2014), but gradually the student will move beyond silence. During the silent period, the student will listen, but may not speak readily. This silent period parallels the stage in first language acquisition when the students are internalizing the vocabulary and rules of language.

Students who are multilingual may be more comfortable speaking with other second language learners in a social setting yet remain silent in the general education classroom. The silent period is part of the learning process as the students is making needed connections between the first language and their new language. Once the student moves beyond the silent period, it is important to know that oral proficiency does not equate to fully developed language proficiency as oral proficiency is not sufficient for the increased language demands required for academic competence. In addition, it should be noted that the silent period is different from selective mutism, a condition that can be caused by severe anxiety (Preston, 2014). Toppelberg suggests selective mutism may be suspected when a student remains silent even after a protracted period of second language exposure, is silent when they would typically speak in their native language as well as when speaking in the language of the school, in addition to appearing as shy, overly anxious or inhibited (2005).

Krashen and Terrell (1983) as well as Hearne (2000) describes the following stages which may help the SLP to better understand the student's progression second language acquisition.

Stage I: Silent or Pre-production (first three months of L2 exposure)

- Silent period as responses in the second language are typically gestural and/or nonverbal
- May comprehend approximately 500 words and use some new words in the second language

Stage II: Early Production (three–six months)

- May comprehend approximately 1,000 words receptively
- Oral language includes one to three-word phrases
- Typically, can answer "who" and "what" questions with short answers as well as "yes/no" questions

Stage III: Speech Emergence (six months–two years)

- Comprehends approximately 3,000 words
- Speaks in simple sentences of three to four words
- Asks simple questions
- Grammatical errors are present which would not be considered atypical for this stage

Stage IV: Intermediate Fluency (two–three years)

- Comprehends approximately 6,000 words
- Sentence production includes some complex sentence types
- Speaker can ask for clarification and state opinions in the second language
- The speaker will make few grammatical errors

Stage V: Advanced Language Proficiency

- Speaker can fully participate in the academic setting
- Speech includes primarily complex sentences with appropriate grammar
- Vocabulary is comparable to native speakers

The acquisition of first and second languages shares many similarities. The field of multilingual education has adopted a model of L2 acquisition that is based on Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Roninson, 2003). After one to two years of exposure to L2, an average student usually acquires BICS. At this level the student socializes with peers and participates in everyday interactions. Achieving CALP requires at least five to seven years of L2 exposure. Individual differences in prior knowledge, learning styles, previous academic and abilities will determine how quickly a student will progress through the various stages. This time period is comparable to the period needed for a monolingual student to learn the formal aspects of the linguistic code.

Structural barriers may influence the rate of L2 learning. These barriers may include understanding that interactions in English may only be occurring during school hours as well as materials and curriculum which do not reflect the student's L1. The student's social-emotional characteristics can also influence the rate of L2 learning. The student's personality (extrovert vs. introvert, low vs. high self-esteem, shy vs. assertive), home culture's attitudes toward L2 and cultural adjustment, and socioeconomic status can also be factors that will alter the time for L2 acquisition (Roninson, 2003).

E. Myths of Multilingual Language Acquisition

There are also a number of commonly held myths about students who are multilingual that can impede educators' or SLP's ability to understand the difference between a speech or language disorder and difference. These myths include a misunderstanding that learning two languages may overwhelm, confuse, and/or delay a student's acquisition of English as well as understanding that multilingual students are at no greater risk for language impairment than monolingual students. Both multilingual and monolingual students have similar levels of overall knowledge (Peña, Gillam, Bedore, & Bohman, 2011). There are no studies that suggest an impairment that does exist is exacerbated by speaking two languages. Therefore, suggesting that parents speak only English with their children to aid in the remediation of language impairment is a suggestion based on no evidence from the literature and is not advised (Peña, Gillam, Bedore, & Bohman, 2011). In fact, research from neuroscientists and psycholinguists on the impact of learning two languages during the infant-toddler years has highlighted the human brain's extensive capacity to learn multiple languages, as well as the infant's ability to separate out each language and to interpret contextual cues to know which language is appropriate in a given context (Kuhl, 2004).

Another myth is that total English immersion from prekindergarten through third grade is the best way for a young English language-learner to acquire English. In fact, research suggests that systematic, deliberate exposure to English during early childhood combined with ongoing opportunities to learn important concepts in the home language results in the highest achievement in both the home language and English by the end of third grade and beyond (Thomas, W., & V. Collier., 2002). Moreover, multilingual students who receive systematic learning opportunities in their home language from the ages of three to eight consistently outperform those who attend English-only programs on measures of academic achievement in English during the middle and high school years (Campos, S.J., 1995; Gutierrez-Clellen, V., 1999; Restrepo, M.A., & K. Kruth., 2003).

F. Referrals for Evaluation of Culturally and Linguistically Diverse Students Suspected of a Speech-Language Impairment

Across the United States, more than seventy-five percent of multilingual students in 2014–2015 were Hispanic or Latino (U.S. Department of Education, 2015). According to the U.S. Department of Education, in 2015 nearly fifty percent of multilingual learners had a classification of specific learning disability, compared to nearly thirty-eight percent of students with disabilities who are not multilingual. Similarly, twenty-one percent of multilingual learners were identified as having a speech or language impairment, compared to seventeen percent of non-multilingual learners (2015). Therefore, it is critical that SLPs utilize and share information with the IEP teams regarding culturally and linguistically diverse referral, assessment, and intervention practices.

At any point in the process of acquiring second language proficiency, a student may appear to have language delays or even language disorders as observed in the classroom. Making a differential diagnosis is challenging for both the multilingual and monolingual SLP. However, if the SLP's analysis shows that English errors are attributable solely to influence from the home language, a disorder would not be indicated, but rather a characteristic of second language acquisition. Therefore, when a student from a culturally and linguistically diverse background is referred for an evaluation for special education, the SLP should share with the team characteristics of those students with and without disabilities (see Table 24) in order to make an appropriate recommendation to proceed.

Dr. Jana Oetting, from Louisiana State University and a prominent researcher in the field of dialect and language, offers this insight (2022).

> *It is important to help educators understand that students with language weaknesses often appear as immature in comparison to students who speak the same dialect or language. The student's language may appear to be delayed so much so that the teacher might compare the student to a child one and a half to two years younger than the student's chronological age. In contrast, stuttering, voice, and speech sound disorders, may not appear as delayed, but more likely perceived as just being different from same age peers. Therefore, the SLP may want to ask, "How does the student talk or comprehend in comparison to another student in the same class or grade who speaks the same language or dialect?" This question is important to tease apart difference from disorder. If the student speaks similar to same age peers that speak the same language or dialect, the concerns may be more likely attributed to a linguistic difference. If the student sounds significantly younger or perceptually different from same age peers who speak the same language or dialect, the concern may need further exploration.*
>
> *Following up by asking he teacher to clarify what they are noticing by giving a few examples can provide additional understanding. For example, if the teacher responds with descriptions that include how the student omits or substitutes certain sounds or grammatical features and these features are dialectal in nature, it would be appropriate to share with the teacher that these are common dialect or linguistic patterns. However, it is important to also ask "does the child produce these behaviors more frequently than other students in the class <u>or</u> more frequently than students that are a year younger in age?" This question is also important to tease apart the disorder within the dialect.*

Table 24. Characteristics of Culturally and Linguistically Diverse Students with and without Disabilities

Characteristics	Student with limited English proficiency	Student with limited English proficiency and a disability
Communication Skills	Demonstrates typical language learning potential. Communicative use of English is reduced and easily noted by native English speakers. English phonological errors common to culture. No fluency or voice impairment. Can be communicatively proficient to function in society.	May exhibit speech and language disorders in the areas of articulation (atypical phonology or prosody), voice, fluency, or receptive and expressive language; may not always achieve communicative competence in either first or second language. May exhibit communication behaviors that call attention to themselves in L1.
Language Skills	L1 skills-appropriate for age level prior to exposure to L2. Nonverbal communication skills culturally appropriate for age level (e.g., eye contact, response to speaker, clarification of response, turn-taking). Vocabulary deficit and word-finding difficulties in L2 only. May go through a silent period. Code switching common.	May have deficits in vocabulary and word finding, following directions, sentence formulation, and pragmatics in L1 and L2. Atypical syntactic and morphological errors. Persistent errors in L2. Low (MLU), percent grammatical utterances (PGU), and number of different words (NDW) from language sampling. Difficulties in first language and English cannot be attributed to length of time in English-speaking schools. Stronger performance on tests assessing single word vocabulary than on tests assessing understanding of sentences or paragraphs.
Academic Functioning	Typical language learning potential. Apparent problems due to culturally determined learning style, different perceptual strategies, or lack of schooling in home country.	May observe limited progress in second language acquisition, difficulty retaining academic information, difficulty in schoolwork of home country, or difficulty in acquiring the first language.
Progress	Progress in home language is contingent upon adequacy and continuation of first language instruction. Academic progress in English should be steady but will depend on the quality and quantity of English instruction.	May show less than expected progress in English acquisition and development of academic skills. May show a marked or extreme discrepancy between different areas (e.g., oral skills and writing skills) that cannot be attributed to lack of sufficient time or appropriate interventions.
Social Abilities	No social problems in L1. May have some social problems due to lack of familiarity with American customs, language, expected behaviors, etc. Student may experience social isolation and may be likely to be a follower rather than a leader in a group of English speakers	May exhibit persistent social and behavioral problems that are in L1 and their native culture and not attributable to adjustment and acculturation.

Adapted from Handbook for Educators of Students Who Are English Language Learners with Suspected Disabilities (2009), Virginia Department of Education

If an evaluation is appropriate, the following practices should be used as a guide:

- Communication must occur in the language preferred by the family. Best practice is the use of a bilingual practitioner with expertise in the language(s) the student speaks.
- If there is no SLP who speaks the same language as the student and/or no norm-referenced, standardized tests normed for that student's language available, then other means of assessment should be used (dynamic assessment, SALT, narrative analysis, as well as a deep dive into specific contrastive/noncontrastive features and the unique phonological, morphological and syntactic patterns of that language or dialect). It is important for the SLP to consult with and include in the assessment process a trained interpreter who has expertise in the language and culture of interest.
- The role of the interpreter is not to translate an English assessment into the student's primary language as this yields an invalid interpretation of ability.
- Use trained interpreters when interviewing the family or talking to the student in a language other than English.
- The assessment should be administered in all languages that the student speaks. For a truly valid assessment, the tests administered should be designed specifically for the population the child belongs to (e.g., monolingual Spanish tests aren't the same as a bilingual test designed for Spanish-English bilinguals).
- Interview the family (or staff from agencies involved with the student) regarding the student's communication skills in comparison with those of peers, siblings, and parents. This interview should gather data regarding the parents' concerns about overall communication skills.
- Information is from the school's MLL teacher is imperative if reports demonstrate slower than typical acquisition of English.
- The assessment should include a review the student's written work to identify any consistent language patterns.
- Complete an MLU assessment in both languages focusing on MLU, number of different words, and percent grammatical utterances (see Castilla-Earls et al., 2020).

It is also important to consider the language spoken and/or dialect used by the student before selecting a norm-referenced assessment and to use norm-referenced assessments with caution. If the normative sample for the test did not include a comparable group or if the testing procedure was modified, scores should *not* be interpreted according to the standardized manual. Again, standard scores cannot be reported when the assessment has been translated. Translation of a norm-referenced assessment invalidates the results. Some of the challenges that arise when tests are translated including language items often do not have a one-to-one translation, languages vary in their order of acquisition or vocabulary, morphology, and syntactic structures, as well as the fact that languages vary in their syntactic structures and not all structures that are assessed on English tests exist in other languages (Goldstein, 2000).

G. Comprehensive Assessment and Students from Culturally and Linguistically Diverse Backgrounds

In the United States, 52 percent of Black students and 45 percent of Hispanic students are reading at Below Basic levels in reading compared to only 23 percent of White students (NAEP, 2019). It is not that dialect or second language acquisition cause literacy deficits in and of itself (Terry et al., 2018), but rather when the language of school and the words on the page are written

in a system of language that is different from the language a student brings with them to school, they need explicit instruction in the similarities and differences in these language systems to achieve mastery. Therefore, it is essential that school teams ensure that students have had access and opportunity to receive comprehensive literacy instruction as defined by ESSA which is stated as developmentally appropriate, contextually explicit, and systematic instruction, and frequent practice, in reading and writing across content areas; which includes age-appropriate, explicit, systematic, and intentional instruction in phonological awareness, phonic decoding, vocabulary, language structure, reading fluency, and reading comprehension (2015) in addition to receiving support under Title III which is to help ensure that English learners (ELs) attain English language proficiency and in order to meet state academic standards.

Kathy Escamilla, professor of education in the division of social, bilingual and multicultural foundations at the University of Colorado (2015) points out that, rather than viewing student challenges with literacy development as a problem within the child, the problem may be due to lack of appropriate activities to facilitate the development of academic language and literacy in culturally and linguistically diverse students. Focusing only on the "problems" within individual students does not address needed systemic changes and can further perpetuate the cycle of performance "gaps" and educational inequity. Therefore, any universal screening results that identify a student as "at-risk" should be followed by an MTSS problem solving process regardless f the student's cultural or linguistic background. This may include tiered intervention and/or further assessment. Moreover, given that reading difficulties, such as dyslexia, are strongly heritable, conversations with parents/caregivers about familial difficulties learning to read should also help to inform the need for further evaluation.

The IDEA requires that "in evaluating each child with a disability under 34 CFR §300.304 through 300.306, the evaluation is sufficiently comprehensive to identify all of the child's special education and related services needs, whether or not commonly linked to the disability category in which the child has been classified 34 CFR §300.304 (c)(6)). Therefore, when any student is suspected of a disability, the team must review and consider all possible areas of concern and potential assessment. This is important to point out because MLLs with reading disabilities are identified far later than their English-only peers, and this greatly impacts their ability to achieve their potential (McCardle et al., 2005). Often, these students may be missed, because it is assumed that the student is simply having difficulty learning English and they will eventually achieve mastery. However, this is an erroneous assumption. While English is not as transparent as Spanish or German, it may not be the language that is causing the struggle, but rather the underlying skills necessary for decoding and comprehension that need to be uncovered.

One of the first steps to determine if a disability may be present is to assess the students' ability to verbally manipulate the sounds in their native language because there is cross-language transfer of phonological awareness skills (Branum-Martin et al., 2012) such that students who can process and manipulate the sounds of language in the first language likely are able to do so in the second language as well. Brown (2008) suggested that students with below-average phonemic awareness in their native languages will have difficulty learning a new language. It is important to note, however, that when oral language testing is conducted, it should be conducted in the student's primary language *and* secondary language (usually English) to determine

dominance and proficiency across languages. When no language dominance is established, evaluate processing skills such as phonological awareness and rapid automatic naming (RAN) in both the primary and secondary languages to the greatest extent possible. RAN tests the students' ability to rapidly name items, letters, or numbers that are presented to them visually. If traditional assessments are not available in the student's primary language, consider qualitative information gathered from in-depth teacher and caregiver interviews as well as dynamic assessment (see Appendix W).

Reading fluency and spelling skills of those students whose native languages are a transparent language, such as Spanish, should also be assessed. In contrast to native English speakers who are usually identified due to difficulties decoding new and unfamiliar words, those students who are speakers of transparent languages with closer approximations to one-to-one correspondence of sounds and letters, should have less difficulty decoding and sounding out words in their more predictable language. Therefore, when fluency is low in the native language it is more likely indicator of difficulties with reading.

As it relates to dialect specifically, students who have difficulty acquiring spoken language or who speak a different variety of English other than that of the majority of the population are at risk for failure to acquire proficient reading skills (Craig & Washington, 2005). This is likely because the subtle transformations between the cultural and the general varieties of a single language may be even more difficult for young children to detect and resolve than the more obvious differences between two languages (Washington & Seidenberg, 2021). Therefore, it is important to extend the same benefits and considerations to speakers of a dialect as are afforded to dual language speakers as this could result in comparable, positive outcomes. To illustrate this point, consider that similar to learning another language, students who speak another rule-based language dialect must be able to demonstrate linguistic flexibility <u>at the same time</u> that their cognitive resources are being allocated to learning the language of the classroom in addition to a wide variety of academic skills being learned. For example, a speaker of AAE knows how to conjugate verbs in that dialect but may need to learn a second set of rules for conjugation in GAE. In order to learn the dialect (GAE) of curricular text the student must understand what is different in GAE, compared with what the child already knows in their dialect. However, more often than not, additional time, support, and opportunities to acquire this knowledge are not typically part of the school curricula. Moreover, heavy dialect speakers have a special challenge developing phonemic awareness because of the mismatch between spoken word forms that are familiar to them in their dialect and written words that represent speech sounds or speech sound sequences that are not present in their dialect (Moats & Tolman, 2019).

It is well known that oral language development is the foundation for written language development, what is not as well-known is what that includes. As Graddoll & Swann so eloquently explain, "Language, like gravity, is one of those things with which everyone is familiar, but few can adequately describe and explain" (1989). The following aspects of language need allocated time, explicit instruction, and focused attention for students from culturally and linguistically diverse backgrounds:

Phonology

- Ortiz et al (2002) reported that ELL students who are struggling to learn English and have some foundation in reading in their native language should receive direct instruction that includes speech perception, phoneme awareness, and sound-symbol connections.
- Most native speakers of English master pronunciation when they first learn to speak, but students from culturally and linguistically diverse backgrounds require direct, explicit instruction in English verbs and phonemes (Moats & Tolman, 2019).
- When there are differences in the phonemes and syllable shapes of a language, these differences must be explicitly taught to students so that they can master the "code" of GAE. For example, Spanish consists of 30 letter and 23 phonemes which is made up of five vowels and 18 consonants (Cardenas-Hagan, 2018). In contrast, GAE contains 26 letters and 44 phonemes which is made up of 24 consonants and 20 vowels. This means that Spanish speaking students will need to be taught the phonemes that are not present in their native language in addition to the patterns that govern what they look like in print. For example, the phoneme /ʤ/ is not present in Spanish. Therefore, students will need to be taught this phoneme in addition to learning that it can be represented by the letter "j", the letter "g" (when it is followed by the letters "i, y, or e"), the letter sequence "ge", and the letter sequence "dge" (depending on if the vowel is long or short).
- In addition, while both Spanish and GAE contain open and closed syllable shapes, multilingual learners will need to learn that the vowel sound changes within English syllables since vowel sounds do not change in Spanish. They will also need to learn the syllable shapes of vowel-controlled r, consonant + le, CVCe, and vowel teams which also do not appear in Spanish. Knowing the English syllable types and the similarities and differences between the two languages will help students from culturally and linguistically diverse backgrounds learn to read (Cardenas-Hagan, 2018).
- English proficiency is not necessary precursor to phonemic awareness instruction (Durgunoglu, Nagy, & Hancin-Bhatt, 1999; Geva, 2006) although the vocabulary used in phonemic activities must also be expressly taught to students (Brown & Ortiz, 2014).
- The first activity under the category of phonological awareness should be rhyming in the native language and English (Cardenas-Hagan, 2020).

Semantics

- Multilingual students and those students from a low language environment and/or from impoverished backgrounds will need explicit instruction to build language acquisition skills related to vocabulary which, in turn, supports comprehension (August & Shanahan, 2006, International Reading Association, 2017).
- Within a second language acquisition framework, mastering academic terms and the language of "school" facilitates deeper understanding of the curriculum content and enables students to actively participate in content related discussions across all curricular subjects (Nagy & Townsend, 2012; Teachers of English to Speakers of Other languages, 2006).
- Multilingual learners may not be familiar with basic, tier one words (such as glow, fireflies, jars, bellies, lanterns) which may impact the mastery of related tier two and three words (appear, creatures, nocturnal, metamorphosis, abdomen, and

bioluminescence). Providing manipulatives, pictures, and videos are helpful methods of demonstrating the meaning of specific words as well as the connections between the words. In addition, there are cognates that may appear in the student's primary language that can be used to build connections as well. For example, in Spanish la criatura (creature) and aparecer (appearance).

Morphology and Syntax

- Argulles, Baker, and Moats (2011) found that multilingual learners will progress more quickly and to higher levels of academic achievement if they receive direct instruction in the structures and use of English vocabulary and syntax.
- Because morphology and syntax can differ in across various languages and dialects from GAE, it is important to take time to explicitly point out differences and similarities. For example, in many dialects and languages, the plural is not marked by the addition of the morpheme "s" or "es" at the end of a word, but rather by the number within the sentence (i.e. "He has two cat.")
- GAE tends to have more rule governed word order requirements than most languages. This will require explicit instruction in similarities and differences in order to eliminate confusion.

H. Assessment of Culturally and Linguistically Diverse Students

Information regarding evaluation of students from culturally and linguistically diverse backgrounds can also be found in Chapter Three. These sections include discussion topics such as the inability of a norm-referenced assessments to differentiate a language difference from disorder, the need to consider the normative sample closely in comparison to the student, as well as sources of potential linguistic bias. According to the IDEA, assessments must be nondiscriminatory (34 CFR §300.304(c)(1)(ii)) and administered in the student's native language or other mode of communication and in the form most likely to reveal accurate information unless it is clearly not feasible to do so. Assuming the clinician is not a native-like speaker of the student's other language, it is critical that the assessment take place with the assistance of an interpreter with training. That said, there is no single language test that will provide diagnostic accuracy for multilingual student who are speakers of any language or dialect (Dollaghan & Horner, 2011; Castilla-Earls et al., 2020). Any test used should be accompanied by supplemental measures. For students who are from culturally or linguistically diverse backgrounds, language sample and narrative analysis in all languages or dialects is best practice.

I. Determining Proficiency in Culturally and Linguistically Diverse Students

Assessing students from culturally or linguistically diverse backgrounds requires that the SLP conduct a careful analysis of the English errors of phonology, morphology or syntax while considering the phonology, morphology, syntax, semantics, and pragmatics of the student's native language (Derr, 2003). Establishing a student's proficiency in their primary language or dialect is important for separating a language difference from a language disorder. If a student has low proficiency in a language, that student could appear disordered when in fact that student may simply need language enrichment (e.g., ELL and/or code meshing instruction). If a student has little exposure to a language, that student should not be expected to be a proficient speaker in that language. The purpose is to separate out students with low proficiency from students with

underlying language learning disabilities. The first step in determining language proficiency is to gain information regarding the student's language environment. This requires the SLP to acquire information regarding the percentage of input and output in each language through parent interview by asking parents/caregivers when the student gets up and goes to bed as this will yield the total waking hours. Then ask what a typical day is like for the student as well as what activities does the student engage in, with whom, and what languages or dialects are used. It is worth stating that it is important to remember that students may hear one language or dialect, but routinely speak another, so percentage of input and output are not always equal. Tally the number of hours each day the student hears the primary language or dialect of the home, speaks the primary language or dialect of the home, hears English, and speaks English. Do this separately for weekends. Divide this number by the total number of waking hours and multiply by 100. This will result in a percent input and output for each language or dialect and help obtain a better picture of what to expect in the evaluation session (Pena, et al., 2018).

J. Working with Foreign Language Interpreters and Translators

Interpreters can be used when there are no available SLPs fluent in the language of the student. The interpreter functions as a link between the school culture and the culture of the student's family. The use of a trained interpreter is preferable to the use of a family member. The SLP should meet with the interpreter to explain the purpose and protocols for the assessment, provide descriptions of English terminology, and stress confidentiality.

The following is a list of tips for when working with an interpreter:

- Meet with the interpreter ahead of time to review the goals and procedures of the assessment or materials.
- Be sure the interpreter is aware of confidentiality policies.
- Remind the interpreter to limit nonverbal cues such as hand gestures and vocal variation which may impact assessment results.
- Review test validity and reliability to be certain that the interpreter avoids unnecessary rewording of test prompts.
- Ask the interpreter to take notes on the student's response, especially for anything unusual or that may standout to the interpreter.
- While administering the assessment, talk directly to the student and use short, concise sentences while pausing frequently to allow the interpreter to translate the information.

K. Non-Standardized Assessments Methods of Assessment for Students from Cultural and Linguistically Diverse Backgrounds

There may be overlap in standardized test performance between typically developing students from culturally and linguistically diverse backgrounds and monolingual students with language disorders. This is due to the fact that students with disorders are likely to perform poorly on norm-referenced tests for internal reasons (i.e., language-learning disability) whereas students from culturally and linguistically diverse backgrounds perform poorly on norm-referenced tests for external reasons. These external reasons include norm-referenced tests that are not designed considering the unique cultural and linguistic contexts of culturally and linguistically diverse students in the U.S., test items that are often written from an Anglo-centric lens which changes the reliability and validity of the test for students who are not White, monolingual English

speakers (Wood & Schatschneider, 2019), and less experience with each language which results in knowledge that is distributed unevenly across their two languages (Kohnert, 2012).

Dynamic assessments are an especially effective method of evaluating a student's ability to learn new language skills. While differences between the student experience with the content and/or testing process (Sewell, 1987) impact a student's performance on norm-referenced assessments, a dynamic assessment is based on changes made from pretest to posttest or on modifiability, as measured by amounts of cues needed, teaching effort, and/or student responsivity (Orellana, C., Wada, R., & Gillam, R., 2019). By focusing on learning potential rather than a snapshot of skills, the student has the opportunity to learn and make changes, which reduces some of the biases inherent in norm-referenced assessments.

L. Assessment Speech Sound Production in Culturally and Linguistically Diverse Students
For speech sound production, a combination of measures is also recommended, as students from culturally and linguistically diverse backgrounds may demonstrate uneven skills across phonological domains (Fabiano-Smith and Goldstein, 2010; Fabiano-Smith and Barlow, 2009). Collect a single word and a connected speech sample but use caution when scoring the English test being sure the student fits the norming population. If the student is not represented in the normative sample do not use the test or report the information qualitatively, but do not report a standard score. For school-aged students, the narrative sample used for language analyses can serve as a connected speech sample.

The SLP should perform the following analyses using the single word data and use connected speech as a supplement for phonetic inventory analysis and intelligibility ratings paying attention to specific variations which are specific to the student's L1. If the student is not able to produce a phoneme in L1 that does not occur in L2 it should not be marked as an error. (See Appendix R Phonemic and Linguistic Variations Across Common Languages and Dialects in the US).

The following guidelines direct the SLP to conduct a…

- Phonetic inventory analysis in both languages (see Fabiano-Smith and Barlow, 2010)
- Phonological pattern analysis in both languages (See Goldstein, Fabiano, and Washington, 2005)
- Percent consonants correct (PCC) in both languages (see Goldstein, Fabiano, and Washington, 2005)
- Percent vowels correct (PVC) (if there is concern regarding vowels) in both languages
- Contrastive analysis/analysis of cross-linguistic effects (removing any influence of one language on the other from total count of true errors)
- Intelligibility judgment
- Parent interview: Be sure to ask, "Do other people find your child difficult to understand? (Gildersleeve, Neumann, and Stertzbach, 2005)."

Using toys in play-based settings to generate language samples for phoneme analysis is standard practice when assessing young students. However, for students from culturally and linguistically diverse backgrounds, care must be taken to select toys that will provide equal potential for spontaneous production of phonemes from both languages. Some preschool imaginative play toys have been found to provide many opportunities for phoneme and syllable production in both

English and Spanish connected speech samples (Fabiano-Smith and Crouse-Matlock, 2012) in combination with other toys for language sample analysis. Clinicians would be wise to collect toys that target the phonemic inventory of the student's L1.

M. Dialect

"Languages are invariably manifested through their dialects, and to speak a language is to speak some dialect of that language" (Wolfram, 1991). There are many dialects spoken across the United States including General American English, African American English, Upper Midwest (North and South Dakota) English, Cajun/Creole, Southern White English, Appalachian English, Northeastern New England (Boston and Maine English), Spanish-Influenced English, New York City English, and Gullah/Geechee to name a few. Although each dialect has distinguishing characteristics, all share a basic core of grammatical features that are common to all varieties of American English (ASHA, 2002). A helpful illustration is to compare language to ice cream. Just as there are different ways to speak the language (i.e., dialect), there are also many "flavors" of that language. No one ice cream flavor or dialect is better than another; they are simply different. Similar to best practice and evidence-based recommendations to not ask a student to use one language over another, it is also not recommended to ask a student not to speak using their unique dialect.

The ASHA's stance on difference versus disorder is clear; a cultural–linguistic difference does not constitute a disorder (Hamilton, M, Mont, E., & McLain, C., 2018). Therefore, when dialect is a consideration, assessment should focus on identifying and distinguishing contrastive features (features unique to the dialect) versus noncontrastive features (features shared between GAE and the dialect) (see Table 25) in order to differentiate a student speaking with a dialect from a student with a speech-language impairment. While a student may use contrastive features consistent with their dialect, this alone does not indicate a language disorder. However, if the student uses a dialect, but exhibits difficulties in use of the features that are common with GAE, then the SLP may suspect a language disorder. In other words, noncontrastive features are more diagnostically salient when distinguishing differences versus deficits. For example, if a six-year-old student who speaks AAE does not appropriately use pronouns, articles, demonstratives, or complex sentences which are noncontrastive and present in both GAE and AAE, then an SLP may suspect a language disorder.

Table 25. Noncontrastive and Contrastive Features.

Noncontrastive Forms that DO NOT vary across dialects	**Contrastive** Forms that DO vary across dialects
• Articles • Conjunctions • Demonstratives • Locatives • Negatives • Prepositions • Present Progressive • Pronouns	• Past tense • Verbal –s • Copula "be" • Auxiliary "be" • Auxiliary "do"

Rickford (2002) considers AAE one of the most widely spoken and studied nonmainstream dialects in the United States. While not all African Americans speak AAE, and a person does not need to be African American to speak AAE, it is important to have a solid understanding of this dialect when conducting assessments of students suspected of a language impairment. AAE is a rule-governed dialect of GAE with many predictable and known phonological, syntactical, pragmatic, and semantic differences from GAE (Mitri & Terry, 2014; Terry & Scarborough, 2011, Washington, Terry & Seidenberg, 2014). In nonmainstream dialects of English, such as African American English (AAE) and Southern White English (SWE), expressions of tense and agreement vary. For example, GAE marks past tense with overt forms (e.g., walked, drank). SWE marks past tense with these forms as well, but also allows a low rate of nonmainstream zero forms (e.g., walk for walked) and nonmainstream overt forms (e.g., drinked, drunk, seen). AAE marks past tense with the same forms as GAE and SWE but allows more zero marking in addition to a larger inventory of nonmainstream overt forms (e.g., drinked, drunk, seen, fount, had play, had played (see Appendix R).

The Diagnostic Evaluation for Language Variation (DELV) is the first test designed to be dialect neutral with respect to AAE. The DELV (Seymour, Roeper, & de Villiers, 2004) is an assessment of complex aspects of children's syntactic, semantic, phonologic, and pragmatic development. It is designed for children between the ages of four and nine and is non-discriminatory to non-GAE users. This assessment helps determine how much of a variation from GAE the student speaks and to what degree they are at risk for a language disorder.

Using dynamic assessment as thoroughly described in the assessment chapter of this document is helpful in evaluating students with a dialect suspected of a speech-language impairment. A dynamic assessment can be used to help to confirm whether the student is having a difficult time with speech and language in general or more specifically with the rules of GAE. For example, if the student consistently pronounces the written symbols "th" as /d/ at the beginning of words and as /f/ in the medial or final position of words, and they have been referred for articulation issues, use dynamic assessment to distinguish between a speech sound disorder or simply a feature of the child's dialect. Have the student practice a nonwords, such as "juth" or "thimp," and to if they can pronounce the written symbols of "th" as /θ/ or /ð/ the student would not be considered as demonstrating disordered production.

When discussing evaluation findings and writing an evaluation report for students with dialectal variations, there are a few important considerations to keep in mind

- Do not make assumptions about a student's abilities based on race, ethnicity, gender, linguistic background, or any other cultural variables.
- Do not describe the linguistic variation as an error. For example, in AAE the final consonant is often represented by only one consonant (i.e., "tole for told"). Use of only one consonant (as opposed to a blend of consonants) is a unique feature of many languages and dialects. This is not a disordered feature of the dialect and therefore should not be described as such; it is the rule governed phonological pattern for that language or dialect.
- To make it easier to improve discussions about dialect, it is important to talk about how every person in the world speaks with a dialect. Examples of dialect in the U.S. include Southern White English, Spanish Influenced English, Cajun English, New England

English (Boston), Midwestern English (North Dakota), and Caribbean English to name a few. There are also dialects of English in Great Britain and other English-speaking countries such as Scottish English, Irish English, Cockney English, Australian English, South African English, and Canadian English. No dialect is better than another – dialects are simply the language that we were loved in and surrounded by while learning language. There are many "flavors" of English just as there are many flavors of ice cream, but no one ice cream flavor or dialect is better than another – they are simply different. Therefore, it would be inappropriate to say that the language or dialect that a person was surrounded by and continues to be surrounded by within their community and those that love them would be incorrect because all dialects are rule governed with distinguishing characteristics that make it unique from other dialects. In fact, the ability to speak more than one dialect and to go back and forth between dialects is an incredible feat to be admired because it is more difficult to switch between two dialects than two languages because there only slight changes in linguistic rules as opposed to more overt changes in rules.

- An accent refers is different from a dialect because accent refers only to the way words are pronounced, while a dialect has its own grammar, vocabulary, syntax, and common expressions as well as pronunciation rules that make it unique from other dialects of the same language.
- Below is a clarifying statement that may be helpful to include in an evaluation report when citing dialectal variations.

The speech and language features exhibited by the student during the evaluation that are unique features of a dialectal include: _____

(**NOTE to SLP: list student's specific features using positive - not disordered terminology – e.g., plurals are marked by number, adjectives follow the noun, etc.)**

These linguistic differences should be honored and respected as opposed to being considered incorrect. These features are considered a communication difference and not a communication disorder and therefore do not warrant direct intervention.

N. Eligibility for Speech-Language Impairment in Culturally and Linguistically Diverse Students

Eligibility for special education with a speech-language impairment must be based on the presence of a speech-language impairment in both languages and rule out unique features of dialect. Presence of a disability should not be based on the student's limited English proficiency or primary dialect. Therefore, care must be given to determine the cause of communication skill deficits.

When a diagnosis of speech-language impairment is found in a student who speaks another dialect, it is preferable to use the term "disorder within dialect" as the disorder will present itself as being different from same dialect speaking students. For multilingual students the disorder must be present in both languages. Use the results from both norm-referenced and and non-standardized testing, in both languages, to place the student into one of these four categories:

Determining Needs for Students from Culturally and Linguistically Diverse Backgrounds	
Good English Skills + Good Home Language Skills = Typical Language Learning Ability No services indicated	Good English Skills + Poor Home Language Skills = Typical Language Learning Ability Needs Home Language Enrichment
Poor English Skills + Good Home Language Skills = Typical Language Learning Ability Needs ELL services	Poor English Skills + Poor Home Language Skills = Atypical Language Learning Ability Needs Speech Intervention

O. Recommendations and Activities to Support Culturally and Linguistically Diverse Students

Phonemes and Phonics
(Phonemes are the sounds of language/the building blocks of words. Phonics are the allowable patterns for the sequences of letters that represent the sounds in language):

- If the student's dialect or L1 does not include all 44 phonemes of English, they must be explicitly taught.
- If the student's dialect or L1 has variations in *pronunciations* of the 44 phonemes, the differences must be explicitly pointed out.
- When spoken differences are heard, instead of interrupting or saying, "that's not right", take the opportunity to teach the differences. Model the target pronunciation, have them repeat it and then ask the student "what's another way that can be said?"
- It is critically important that phonics and the alphabetic principle (what the 44 phonemes "look like" as represented by 250 different graphemes) be as systematically and explicitly taught as possible. This is the "code" of written language and without systematic and explicit instruction, students will have incomplete knowledge and unable to "break" the code of written language.

Learning a second dialect is not dissimilar to learning a second language.
Therefore, explicit instruction and time must be dedicated to this pursuit. There are differences in vocabulary, syntax, morphology and phonology. Keep in mind that when students arrive at school with a foundation of General American English (GAE), there is a relatively seamless process of teaching what the sounds, words and grammatical endings "look like" that they have been hearing and saying for years prior to school entry. However, for students who do not arrive with this same foundation of GAE, these sounds, words, grammatical endings and ways to combine words in a different language must ALSO be taught before or in combination with teaching what they "look like".

Learn about the characteristics of dialects in order to inform instruction.
For example, in both African American English (AAE) and Spanish Influenced English (SIE) final consonant blends are often reduced. This means students speaking on of these dialects may say "tole" for "told", "ness" for "next", or "miss" for "missed". This can have an impact on both spelling and understanding grammar that has been presented in text written in GAE.

Code Meshing Strategies:

- Contrastive analysis for code meshing – Have students sort sentences based on whether that is home or school language. (i.e. School language: He is riding the bus today. I want seven nuggets. Home language: He ridin' the bus today. I want seven nugget.)

- Identification – Have students identify what grammatical feature is being used (i.e., That is Mandy**'s** book. What is underlined? A plural –s or possessive –s? How do you know?)

- Cloze sentences – Have students choose which word would be appropriate to use for school language (i.e., She live/lives down the street.)

- Formulation – Show the students a picture and give them a grammatical target such as future tense. Have students make up a sentence, using the targeted feature to go with the picture (i.e., He will get on the bus to go to school.).

Explicit Vocabulary Instruction Routine:

1. Pronounce the word and have the students repeat it after you.

2. Write the word on the board. Then, discuss the number of syllables, the number of sounds, unique phonic patterns, morphemes and/or the word's origin.

3. Talk about what the word means using a student friendly definition. Add visual supports and experiences with the word to add to background knowledge.

4. If the word is a noun, talk about visual characteristics, function, location and various parts of the named item. This helps to develop visualization skills to support comprehension.

5. Talk about other words that may be connected to that word (synonyms, other words in the same category, contexts the word is typically used, etc.).

6. Give examples of how it can be used and how it cannot be used.

7. Ask questions about the meaning of the word that can answered with a "yes" or "no" (i.e. Can a valet clean your teeth? Can a valet park your car?).

8. Have students use the new word in a variety of ways and contexts.

9. Frequently use the new word throughout the instructional day.

Teach Tier One Vocabulary

Students from culturally and linguistically diverse backgrounds may lack arrive with a decreased amount of word knowledge for some basic words (sometimes referred to as tier one words). This creates difficulties in both spoken and written language comprehension. Therefore, do not assume students know these basic, tier one terms, but rather provide explicit instruction for them.

- Verb forms of "be" (i.e. am, is, are, was, were, be, being, been)

- Prepositions (in, on, off, under, beside, etc.)
- Conceptual words related to time (i.e. soon, later, wait), quantity (empty, full, more, most), equality (same, both, match), position (first, next, last, middle)
- Words with multiple meanings (i.e. bat/bat, left/left, shake/shake, etc.)
- Figurative language and idiomatic expressions
- Words that indicate relationships between words and ideas (i.e. *because*, *therefore*, *since, etc.)*

Build Background Knowledge

Support reading comprehension by presenting students with brief, engaging videos (3-5 minutes) related to the content topic before text reading and introducing a comprehension question that clarifies the purpose for reading the text.

Does This Make Sense?

Teach active application of reading comprehension strategies such as self-questioning, summarizing, visualization, and comprehension monitoring.

Sentence Frames/Sentence Starters and Sentence Builders

Use sentence starters and sentence building activities to help build syntactic knowledge in GAE. For example, a sentence starter may include "I disagree with _____ because _____". A sentence building activity may begin with a sentence such as "The car is big", but the activity is designed to add more words to lengthen the sentence with the result leading to a descriptive and complex sentence such as "The big red car with the scratch on the door was parked in a no parking zone, so it was towed away and the owner could not find it."

Chapter Fifteen: Telepractice

Introduction

Telepractice is the application of telecommunications technology to the delivery of speech language pathology professional services at a distance. Telepractice is constantly evolving. Ongoing education and training are required to maintain expertise and familiarity with changes in technology and potential applications.

The use of telepractice does not remove any existing responsibilities in delivering services, including adherence to the Code of Ethics, Scope of Practice in Audiology and Scope of Practice in Speech-Language Pathology, state, and federal laws (e.g., licensure, HIPAA), and ASHA policy. The two most common terms describing types of telepractice are synchronous and asynchronous.

- Synchronous services are conducted with interactive audio and video connection in real time to create an in-person experience similar to that achieved in a traditional encounter. Synchronous services connect a student or group of students with a therapist (Department of Health and Human Services, 2012).
- In asynchronous services, images or data are captured and transmitted (i.e., stored and forwarded) for viewing or interpretation. Examples include transmission of voice clips, audiological testing results, or outcomes of independent student practice.
- Hybrid applications of telepractice include combinations of synchronous, asynchronous, and/or in-person services.

A. Roles and Responsibilities

Telepractice is an appropriate model of service delivery for SLPs. ASHA requires that individuals who provide telepractice abide by the ASHA Code of Ethics, including Principle of Ethics II, Rule B, which states, "Individuals shall engage in only those aspects of the profession that are within their competence, considering their level of education, training, and experience" as well as Principle of Ethics, I, Rule H, which states Individuals shall obtain informed consent from the persons they serve about the nature and possible risks and effects of services provided, technology employed, and products dispensed. (ASHA, 2010).

Roles and responsibilities for SLP/SLTs in the provision of services via telepractice include:

- Applying appropriate models of technology used to deliver services.
- Understanding specifications and operations of technology used in delivery of services.
- Calibrating and maintaining instruments and equipment.
- Selecting clients who are appropriate for assessment and intervention services via telepractice;
- Selecting and using assessments and interventions that are appropriate to the technology being used and that take into consideration student and disorder variables.
- Being sensitive to cultural and linguistic variables that affect the identification, assessment, treatment, and management of communication disorders/differences in individuals receiving services via telepractice;
- Obtaining informed consent
- Training and using support personnel appropriately when delivering services.

- Being familiar with the available tools and methods and applying them to evaluate the effectiveness of services provided and to measure outcomes.
- Maintaining appropriate documentation, including informed consent for use of telepractice and documentation of the telepractice session.
- Being knowledgeable and compliant with existing rules and regulations regarding telepractice, including security and privacy protections, reimbursement for services, and licensure, liability, and malpractice concerns.
- Using web-based technology to engage clients through virtual environments and other personally salient activities (Towey, 2012).

B. Licensure and Certification

Current guidance in medical and legal practices indicates that the student's location determines the site of service. As a result, telepractitioners must be licensed in both their home states and in the states in which the students reside. Clinicians planning to do telepractice in a school setting in a state other than where they reside should verify with the Department of Education for the state where the student resides and the licensure board whether licensure or teacher certification, or both, are required.

There is very clear guidance regarding the completion of initial evaluations via telepractice methodologies according to the South Carolina Labor License and Review Board, the following is an excerpt from the 2018 South Carolina Board of Examiners in Speech-Language Pathology and Audiology Policy Regarding Telepractice:

> "The Board does not believe it is unprofessional conduct for a licensee to utilize telepractice *so long as the initial evaluation is conducted in person* and the licensee has determined during the initial evaluation that subsequent treatment is appropriate for telepractice. Should the licensee determine that the client is ineligible for subsequent treatment via telepractice during the initial evaluation or at any point during the course of treatment, traditional in-person treatment shall resume as the licensee deems necessary for the treatment and care of the client. Telepractice services may be provided by the initial evaluator licensee or another qualified speech-language pathology or audiology licensee *pursuant to a treatment plan arising out of the initial, in person evaluation*."

However, it is up to each individual SLP to continue to stay current on updates in telepractice as well as any additional areas of practice from SC LLR and to update their practices to follow the most current guidance provided by SC LLR.

C. Environmental Considerations

Attention to environmental elements of care is important to ensure the comfort, safety, confidentiality, and privacy of clients/patients during telepractice encounters. Room location, design, lighting, and furniture should optimize the quality of video and audio data transmission and minimize ambient noise and visual distractions in all participating sites. Advance planning and preparation may also be needed for optimal positioning of the student, test, and therapy materials, and for placement of the video monitor and camera (Jarvis-Selinger, Chan, Payne, Plohman, & Ho, 2008).

D. School Setting Considerations

The effectiveness of telepractice as a service delivery model in the schools is well documented (Grogan-Johnson, Alvares, Rowan, & Creaghead, 2010; Scheideman-Miller et al., 2002; McCullough, 2001; Grogan-Johnson et. al., 2011; Lewis et al., 2008; Waite et al., 2006). In addition, parents, clients, and clinicians report satisfaction with telepractice as a mode of service delivery (McCullough, 2001; Rose et al., 2000; Scheideman-Miller et al., 2002; Crutchley & Campbell, 2010).

The administrative body responsible for telepractice services in a school or school district should

- Ensure that telepractice clinicians (who may not reside in the state where the school is located) meet all state requirements to practice in the school,
- Make certain clinicians have knowledge, skills, and training in the use of telepractice,
- Recognize that every student may not be best served by a telepractice model and give students the opportunity to receive traditional in-person services,
- Inform parents that they have the right to decline telepractice services for their child,
- Provide parents with an informed consent, satisfaction survey, or other feedback option and opportunities to discuss concerns about their child's progress or the telepractice program,
- Document service delivery via telepractice on the individualized education program (IEP) and during the IEP meeting,
- Formulate policies that ensure protection of privacy during the services as well as documentation of the services,
- Provide on-site support for the telepractice sessions, including the assignment of an individual to accompany the student to the session and provide support during the session,
- Develop a plan for in-servicing staff, training on-site facilitators, and maintaining ongoing contact and collaboration with teachers, parents, and other school personnel—thereby ensuring that state standards are met,
- Develop a system of program evaluation to measure the effectiveness of the service and satisfaction of stakeholders.

Chapter Sixteen: Selective Mutism

Selective Mutism (SM) is defined by the Selective Mutism Association (SMA) as an anxiety disorder characterized by an individual's inability to speak in one or more social settings (e.g., at school, in public places, with peers) despite the ability to speak comfortably in other settings (e.g., at home with immediate family). Selective mutism is diagnosed when this pattern is persistent over time and causes significant impairment in daily functioning (e.g., making it difficult for a student to effectively participate in school, interfering with the ability to make age-appropriate friendships). The prevalence of selective mutism is estimated at a range from .71percent to 2 percent of school-age children and is currently estimated to be about 1 in 140 children (Bergman, Piacentini, & McCracken, 2002; Kumpulainen, Räsänen, Raaska, & Somppi, 1998).

The psychological symptoms of selective mutism are more complex than can be explained by a speech disorder alone (Giddan et. al, 1997). Therefore, a collaborative approach to assessment and treatment is required. During assessment, the SLP will need to rely on language samples recorded via audio or video taped samples from home as well as a variety of data from parent interview. In the school setting, the SLP should also observe and make note of the student's nonverbal communication attempts (gestures, facial expressions, any signs of stress), verbal communication attempts and with whom (even if it is barely a whisper), and the contexts or settings where the student is more likely to communicate. In terms of differential diagnosis, "the main differential symptom between selective mutism and other anxiety disorders, developmental disorders, or language-based disorders is that the child with selective mutism **can** talk in certain situations, but is not able to use that same quality/consistency/volume of speech in other situations due to anxiety" (Kotrba, 2015).

The Selective Mutism Questionnaire and School Speech Questionnaire are free online tools for students age three to eleven that may be used as part of the collaborative assessment when selective mutism is being considered. The Selective Mutism Questionnaire is currently the only available instrument available that is designed to measure the frequency of non-speaking behaviors across situations in which children are expected to speak and is designed to look at the absence of speech in specific situations. The Selective Mutism Questionnaire is given to the parent/caregiver and the School Speech Questionnaire is given to the student's teacher. The scoring ranges from 0 (never speaking) to 3 (always speaking). To score the questionnaires, add the totals in each section and divide by number of items in section. For the total score, add up totals in each section, but do **not** divide. A student without selective mutism generally scores 46 points on average. A student with selective mutism generally scores 13 points on average.

As part of a collaborative assessment when considering selective mutism, the SLP should also be sure the team considers whether or not the student is acquiring a new language in order to rule out instances of the typically occurring silent period. The silent period occurs because when children are first exposed to a second language, they can appear very quiet, speaking little as they focus on listening and comprehension. If a bilingual student has true selective mutism, it will be present in both languages, in several unfamiliar settings, and for significant periods of time (Toppelberg et al., 2005). Therefore, the parent interview and obtaining information about the

amount that the student speaks their first language outside of the home environment is important information for the SLP to gather in order to consider differential diagnosis.

Some students will not speak after a traumatic event or ongoing social–emotional difficulties, such as parental divorce. Students who do not speak as a result of trauma are mute in all settings (Manassis et al., 2003). If the student spoke well prior to these events, then a diagnosis of selective mutism is **not** seemingly appropriate. Instead, the student may require assistance in adjusting to the trauma or other life challenges (Kearney, 2010), in which case, referral to a behavioral health professional is appropriate.

In terms of eligibility, within the public school setting, eligibility for special education services under the Individuals With Disabilities Education Act of 2004 (IDEA, 2004) could be determined to fall within the following disability categories:

- Other Health Impairment is the preferred choice of the Selective Mutism Group-Childhood Anxiety Network (SGM-CAN) being that selective mutism is a neurological and biochemical health issue.
- Emotional Disturbance/Disability
- or Speech-Language Impairment if there are underlying speech-language development concerns found.

Selective mutism is a complex disorder that demands the involvement of an interdisciplinary team of professionals in order to be treated successfully (Giddan et al., 1997). Within the school setting, these professionals might include a school counselor, school psychologist, social worker, speech-language pathologist, special education teacher, paraprofessional, classroom teacher, other professionals and the parent/caregiver. It is critical to establish a "point person" on the school team who has the flexibility and availability to work with the student in a number of settings throughout the year to increase communication. This point person will serve as the primary contact and collaborate with other professionals.

Having the SLP on the team, even in a consultative role, helps the student with selective mutism gain confidence in what they may perceive as decreased communication skills (Dow et al., 1995). As mentioned earlier, if there are underlying speech-language concerns, it may be beneficial to address selective mutism goals initially, in order for the student to gain some confidence before addressing specific speech and language deficits. However, any treatment by the SLP should be in conjunction with a mental health professional. If there are not underlying speech-language concerns, the SLP may also collaborate with the team and support the student by:

- Providing assistive technology or other ideas for alternative forms of communication as needed (this may include simple gestures, picture exchanges or other communication methods)
- Creating visual schedules or social stories to help clearly explain and reduce anxiety for identified situations
- Working to support the development of emotional literacy by labeling, defining, and explaining terms used to explain emotions (what they feel like, look like and what you may do or say if feeling that emotion).

- Supporting the student through general education interventions by such as working through a hierarchy of communication with peers starting with nonverbal methods (e.g., signals, gestures, pictures, writing) and gradually working toward verbal participation
- Encouraging all school team members to watch for opportunities to reinforce small improvements across various school environments
- Reassuring others on the team that the student is still comprehending even if they are not talking
- Encouraging team members to utilize other methods how the student may demonstrate knowledge including pointing, showing, gesturing, or drawing
- Reminding others not to speak *for* the student, or to justify student's silences, or to pressure the student to speak, all of which may reinforce mutism and anxious behaviors
- Supporting peer acceptance of nonverbal participation in classroom and recreational activities
- Finding nonverbal jobs that a student with selective mutism can perform in the school or across the school environment to build confidence
- Requesting that the student have one-on-one time with the teacher so that they can seek assistance quietly rather than in front of peers (Richard, 2011; Schum, 2002, 2006)
- Informing the school team of the importance of maintaining a consistent routine (making the same request of the student at the same point in the schedule each day to decrease anxiety) and/or informing the student when there will be changes to the routine. In point of fact, the opposite of anxiety isn't calm – its trust and the best way to decrease anxiety is by building up the student's trust in the world around them with predictable people, routines, expectations and consistent language.

Chapter Seventeen: SLPs and Deaf/Hard of Hearing

Introduction

It is estimated that about 131 of every 1,000 school-age children have some degree of hearing loss that can potentially affect communication, learning, psychosocial development, and academic achievement (ASHA, 2017). Communication outcomes for students who are Deaf or Hard of Hearing (DHH) are influenced by a number of factors including age at onset of hearing loss, age of and adequacy of intervention, degree of hearing loss, audiometric configuration, intervention program, and family and environmental influences (Sininger, Grimes & Christensen, 2010). ASHA outlines several ways that hearing loss may impact students within the school setting. These include delays in the development of receptive and expressive communication skills, language delays which can lead to deficits in academic achievement, and academic achievement gaps that typically increase as the student progresses through school. In terms of academic performance, a hearing loss may adversely affect a student's ability to access information presented through auditory modalities (e.g., lectures, classroom discussions, peer interactions, watching educational films), to participate in spoken language classroom activities (e.g., taking oral exams, giving presentations, taking notes), to communicate effectively, and to perform academically on a level commensurate with same-aged peers.

Of particular importance is the impact of any degree of hearing loss on oral language development. Language connects people to information and to each other. Language is also the foundation for literacy. Students with hearing losses typically have gaps in language skills for everyday conversation and more so with academic language Any distortion in a student's ability to hear everyday conversation impedes their opportunity for incidental learning and vocabulary development in an aural society, which leads to gaps in language and literacy development. These gaps widen with age for a student with a hearing loss and especially for those who go without intervention. ASHA reports specific challenges related to hearing loss on the development of language in the areas of phonological awareness, vocabulary development, syntax, and speech production.

Phonological awareness (i.e., the ability to recognize and manipulate sounds within words) and vocabulary development are important skills that promote effective reading. While these competencies may be more challenging for children with hearing loss, research indicates these skills can be learned/improved with targeted early interventions. Phonological awareness and phonological memory consistently are reported to be lower in children with hearing loss (Ambrose, Fey, & Eisenberg, 2012; Briscoe, Bishop, & Norbury, 2001; Lund et al., 2015; Spencer & Tomblin, 2009), but evidence supporting the use of systematic, explicit phonological awareness intervention for children with hearing loss exists (Werfel, Douglas, & Ackal, 2016; Werfel & Schuele, 2014).

As a group, children with hearing loss are delayed in vocabulary development compared to children with normal hearing. This includes smaller receptive and expressive lexicons as well as deficits in word learning skills (Lund, 2016; Pittman, Lewis, Hoover, & Stelmachowicz, 2005; Wake, Poulakis, Hughes, Carey-Sargeant, & Rickards, 2005). Children with hearing loss also tend to develop vocabulary slowly and learn concrete words easier than abstract words. The types of words and expressions that are typically more difficult for children with hearing loss

include function words (i.e., the, an, a, etc.) as well as words with multiple meanings and other forms of figurative language such as idioms and metaphors.

McGuckian and Henry report that children with hearing loss exhibit a higher error rate in morphosyntax production as well as a different order of acquisition of grammatical morphemes than is observed in children with typically developed hearing. Brown (1973) identified fourteen morphemes (see Table 26) that are typically mastered or demonstrated within conversational language in children with typically developed hearing by the age of four years. However, children with a hearing loss are notoriously delayed in grammatical morphology (Moeller, Tomblin, Yoshinaga-Itano, McDonald-Carter, & Jerger, 2007; Tye-Murray, 2013).

Table 26. Brown's Grammatical Morphemes

Morpheme	Typical Age of Development	Example
Present Progressive "ing"	27-20 months	We're read**ing** the book.
Preposition "in"	27-20 months	Dad put the cup **in** the sink.
Preposition "on"	27-20 months	The book is **on** the table.
Regular Plural	27-20 months	The chip**s** were salty.
Irregular Past Tense	31-34 months	I **ate** lunch. He f**ell** down.
Possessive 's	31-34 months	The girl**'s** car.
Uncontractible Copula	31-34 months	The full form of the verb to be when it is the only verb in a sentence- **Is it** Alison? Yes, **it is**. **Was it** Alison? Yes, **it was**.
Articles "a, an, the"	35-40 months	I had **a** sandwich. Mom gave me **an** apple. We are going to **the** zoo.
Regular Past Tense	35-40 months	She **jumped**. They **walked.**
Regular Third Person Singular	35-40 months	Jason **likes** you.
Irregular Third Person Singular	41-46 months+	She **does**. He **has.**
Uncontractible Auxiliary	41-46 months+	The full form of the verb 'to be' when it is an auxiliary verb in a sentence - **Are they** swimming? **Were you** hungry?
Contractible Auxiliary	41-46 months+	The shortened form of the verb 'to be' when it is an auxiliary verb in a sentence) He is hungry – He's hungry.
Contractible Copula	41-46 months+	The shortened form of the verb 'to be' when it is the only verb in a sentence - She's ready. **They're** here.

With regard to speech production, ASHA describes children with high frequency hearing loss as struggling to hear high frequency speech sounds (e.g., /s, sh, f, t, and k/) and children with low frequency hearing loss as struggling to hear low frequency sounds (including vowels). This often results in associated phoneme/speech production errors which makes their speech production difficult to understand. The Iowa Medial Consonant Test (free and easily accessible online) provides specific information about how a child perceives each consonant in the English language. This is important because a child who does not perceive all of the consonant sounds

clearly will have increased difficulty producing and comprehending speech and as a result, impact the ability to effectively learn to read.

A. Input

Children who are DHH must have excellent access to sounds using their technology if they are going to be able to use listening as a method to learn spoken language and develop good literacy skills. The goal of the Ling-Madell-Hewitt 10 Test is to determine what a child is hearing and what they are missing. The information can then be used by the audiologist to adjust technology settings and provide better access to frequency bands that are not being perceived. Speech perception and production need to be monitored frequently. Best practice is daily checks in order to identify consistent errors patterns in order to manage use of the technology.

The Ling 10 (see Appendix Z) is a screening test for low, mid and high frequencies using speech sounds (somewhat similar to the "speech banana") (see Table 27). It is fast and easy to complete (approximately five minutes) with high validity (Agung, Purdy & Kitamura, 2005). As an example, the following sounds range on a continuum from 250 Hz to 4000 Hz;

- The /m/ sound, as in "me", is a low frequency sound (250Hz).
- The /oo/ sound, as in "two", is a middle frequency sound (500Hz).
- The /ah/ sound, as in "ball", is a high frequency sound 1000Hz
- The /ee/ sound, as in "she", is a high frequency sound (2000Hz).
- The /sh/ sound, as in "fish", is a high frequency sound (2000Hz).
- The /s/ sound, as in "us", is a low intensity sound, but high frequency (4000Hz) (Cole & Flexer, 2010).

The Ling 10 can be completed at several different levels for several different ages and ability levels. The Ling 10 is also not limited to English-speaking individuals.

Ling 10 Levels of Administration:

1. Detection – "I hear something" – observe whether their eyes startle, stop what they are doing, or look in the direction of the sound (Mustard, 2011). Older children can be instructed to put a peg into a peg-board or throw a ball into a container each time they hear a sound (Mustard, 2011).
2. Identification – "I know what sound this goes with" – This involves the ability to discriminate between sounds and pointing to a card that has a picture that represents the sound they heard.
3. Imitate/Produce – "I can say the sound" – The child produces the sound after hearing it which demonstrates that they have heard, detected, discriminated, and can produce the sound.

To complete the Ling 10 ask the student to repeat what they hear or point to a picture that represents that sound. This should be completed three times: first, on the right ear *with* hearing technology, second, on the left ear *with* hearing technology, and third, both ears together *with* hearing technology. If testing is accomplished only in the binaural condition, it will not be possible to know if one ear is not performing well. Without binaural testing, it will not be known if the technology worn in both ears together is causing distortion when used together. Usually all tests are presented at conversational distance of approximately three feet (Mustard, 2011). If the

student cannot access all of the Ling 10 sounds or if their response to sounds changes, then check to see if there is a change in their health, functioning of their amplification, or possibly a temporary or permanent deterioration with their hearing. All this is possible with daily checks and close monitoring.

All children need more complex speech perception testing to fully evaluate perception. This may include standard speech perception testing and/or use of the Iowa Medial Consonant Test (as noted previously) to understand how they hear all consonants in the English language. For very young children or children new to technology who struggle to repeat the medial consonant test using a VCV format, the consonant can be used in isolation. As they progress, they need to use standard speech perception tests which are age appropriate. School based personnel should teach parents to conduct the Ling 10 test at home as well. This is to ensure that the student is getting appropriate auditory input consistently across settings. However, if home use cannot be obtained, this does not lessen the importance of performing the Ling 10 Test daily at school.

The goal of the Ling 10 is to determine what the child is hearing and what they are missing on a frequent basis. The information can then be reported to the audiologist in order to adjust technology settings and provide better access to frequency bands. Once the audiologist has adjusted the settings, school personnel can better implement treatment plans. For example, if a quick Ling 10 check in reveals that the student is having difficulties with higher frequencies, this may explain why the student is making little progress with the targeted goals of plural –s or past tense –ed. The Ling 10 then helped to explain why the hearing technology was adjusted and now the student is making progress in those areas.

Table 27. Ling 10 Frequency Distribution

	Band 1: 200-1000Hz Voicing	Band 2: 1000-1500 Hz Consonant Differentiation	Band 3: 1500-3500 Hz Consonant Differentiation	Band 4: 3500 Hz + Frication
/u/	F1: 300 Hz F2: 870 Hz		F3: 2240 Hz	
/a/	F1: 730 Hz	F2: 1090Hz	F3: 2440 Hz	
/i/	F1: 270 Hz		F2: 2290 Hz F3: 3010	
/m/	250-350 Hz	1000-1500 Hz	2500-3500 Hz	
/ʃ/			1500-2000 Hz	4500-5500 Hz
/s/				5000-6000 Hz
/ʤ/	200-300 Hz		2000-3000 Hz	
/z/	200-400 Hz			4000-5000 Hz
/h/			1500-2000 Hz	
/n/	250-350 Hz	1000-1500 Hz	2000-3000 Hz	

*The ability for a listener to easily identify any given vowel is primarily dependent upon the audibility of the first formant (F1) and second formant (F2) of the vowel. This is a reference to high vs. low and front vs. back vowels.

B. Assessment

An evaluation by an SLP is required when a student is being considered for eligibility as a student who is DHH. The speech and language evaluation is intended to determine strengths and weaknesses that may need to be addressed through specially designed instruction in order to be successful in the educational environment. The results also inform the team of possible speech-language needs that may adversely impact educational performance. It should be inherently understood that the methods and tools for the evaluation by the SLP must reflect the method of language used by the student. There are more than 300 different sign languages in use around the world and they vary from nation to nation. Even within the same country, sign language can have regional accents that result in subtle variations in the use and understanding of signs. Moreover, it's not just the signs that vary, but the speaker's facial expressions, gestures, and body language can all have a significant bearing on how a sign language is communicated. Therefore, the SLP must be fluent in the language used by the student or selected by the student's family (i.e. fluent in American Sign Language (ASL), if that is the student's method of communication or the method chosen by the family). The student's preferred mode of communication should be matched with the evaluator and for those students who use oral communication, the evaluator should determine if the student needs more time to look at the speaker for each question or direction and/or if information may need to be repeated if the language is unfamiliar to them. This information should be reported within the evaluation report. Interpreters can be utilized when the evaluating SLP is not fluent in the language of the student. In situations where a sign language interpreter is used, the evaluator should work with the interpreter prior to the assessment so that the interpretation of the directions or questions does not give away too much information to the student and invalidate the test.

The SLP should exercise caution in choosing norm-referenced, standardized measures for students with hearing loss, as few speech-language tests have been standardized on students with hearing loss. However, several tests can be adapted successfully to provide information to the evaluator. No single assessment should be used to determine the need for services; rather, the evaluator should collect a variety of data and document findings of strengths and weaknesses based on the collected body of evidence specific to the student.

When evaluating language, the SLP may use instruments that include norms for students with a hearing loss (e.g., Test of Syntactic Abilities, Rhode Island Test of Language Structures, Grammatical Analysis of Elicited Language, and Test of Auditory Comprehension). If an SLP utilizes other norm-referenced language tests which are not normed for hearing loss, the evaluation report should include adaptions and modifications to the test administration. In such cases, the scores should not be reported. However, the information obtained may provide qualitative and relevant information to team members.

The SLP can also use a variety of evidence-based methods for assessment of students who are being evaluated for Deaf/Hard of Hearing (DHH) eligibility. These include dynamic assessment, language samples, and assessment of narrative skills. Dynamic assessment (Gutiérrez-Clellen and Peña, 2001) are an alternative that is commonly practiced with culturally and linguistically diverse populations (e.g., Rosemary et al., 1996; Gillam Ronald and Peña Elizabeth, 2004), but has not yet been widely adopted for D/HH populations, despite calls to do so (Mann et al., 2014). Another underutilized strategy for discriminating disorder from delay is

to consider the student's input (Eckes, T., 2020). This is referred to as the student's hearing age. Instead of comparing a student's language score to their chronological age, it is compared to the student's hearing age or the age that the student began receiving auditory input through appropriate amplification via hearing aids or cochlear implants. Hearing age can be determined using the Cottage Scales of Listening, Language and Speech (CASLLS). This assessment is used for children birth through age eight and is available in English, Spanish and is also available online. The Cottage Scales look at language at the levels of pre-verbal, pre-sentence, simple sentence and complex sentence range across the domains of language, social skills, listening, play, cognition, and speech. Once the student's capacity for producing language structures has been determined, specific targets for intervention can be identified. The value of this assessment tool is the ability to report results by comparing the student's hearing age performance to the chronological age of a peer with typical hearing. In doing so, it yields a clearer picture of what skills the student should have developed based on the age they began receiving adequate auditory input.

Assessment of a student who is DHH first requires that the SLP obtain information on the student's acoustic and phonemic access to sound. This includes obtaining key background information such as the degree of hearing loss, age at onset, etiology, the presence of additional disabilities, and listening vs. chronological age to assist in the selection of assessment protocols or instruments that will provide information on the student's listening skills using selected demographics of the student. In addition, SLPs should be familiar with widely accepted frameworks of auditory skill development (e.g., those proposed by Caleffe-Schenck & Iler Kirk, 2004; Chute & Nevins, 2006; Erber, 1982; Estabrooks 2006; Tuohy, Brown, & Mercer-Moseley, 2005), which provide information about what the student should be hearing functionally across the continuum of listening skills as well as additional information that can guide assessment and planning for the intervention of auditory skill development.

No single assessment tool can adequately describe the scope of a student's functional auditory performance and data should include information about the auditory demands of the classroom as well as the auditory environment in which the student must function throughout the school day. Therefore, a comprehensive assessment usually includes a variety of measures to assess a student's overall auditory, speech, and language skills utilizing a variety of assessment methods. In addition to observation and an assessment of speech and language, an assessment of auditory skills should be conducted using tools such as the Early Speech Perception Test (ESP; Moog & Gears, 1990), the Auditory Perception Test for the Hearing Impaired (APT/HI-R; Allen, 2008), the Test of Auditory-Processing-3 (TAPS-3; Martin & Brownell, 2005), and the Auditory Processing Abilities Test (APAT; Ross-Swain & Long, 2004). These tests can provide valuable information about the functional auditory skills of children as young as two years of age (Lugo & Allen, 2011).

Early Speech Perception Test (ESP)

The ESP obtains information about speech discrimination skills in children who are DHH. Created for use with children ages three through twelve who have profound hearing loss and limited vocabulary and language skills, the ESP determines if the student has only very basic skills (e.g., pattern perception of a continuous and intermittent signal as in /ah/ vs. hophophop) or can identify monosyllabic, spondee, trochaic and/or multisyllabic words. The results place

children in four speech perception categories: 1) no pattern perception; 2) pattern perception; 3) some word identification; and 4) consistent word identification. The test provides information about the listening and verbal (word approximations or vocabulary) development as the student progresses throughout intervention.

Auditory Perception Test for the Hearing Impaired

The APT/HI-R is based on the assumption that children acquire auditory perception abilities in a developmental and hierarchical manner, starting with simple detection through open-set comprehension of spoken language (Erber, 1982). This tool helps evaluate the ability of a student who is D/HH to decode spoken language and to design an individual auditory development program. The APT/HI-R measures functional speech perception capabilities in individuals ages three and up with profound to moderate hearing loss. The 30-minute test measures sixteen different skill areas and may be used with the ESP to develop baseline information about the student's auditory functioning with discrete skills from detection to open-set language during initial and subsequent assessments. The results are reported as a profile (rather than a score) that provides a picture of where the student is functioning on an array of discrete auditory skills across the auditory continuum of listening/learning. Visual and auditory-only profiles are used to document progress following ongoing intervention.

Test of Auditory-Processing-3

The TAPS-3 is standardized on children with *normal hearing* therefore standard scores should not be reported, but the information should be used qualitatively instead. This test is used with children from ages four years up to the age of fourteen. It assesses specific higher-level auditory perception skills (e.g., word discrimination, phonemic awareness, phonological blending, word/number and sentence memory, auditory comprehension, and reasoning). The four areas of focus are auditory attention, phonological skills, auditory memory, and auditory cohesion, skills that are necessary to function in a general education setting. Similar to the Assessment of Mainstream Progress protocol (AMP; Chute & Nevins, 2006), the test is used after open-set comprehension is achieved and may help determine the student's readiness to be successful in the general education setting. This test may also be used to track and monitor the student's auditory progress or regression in the mainstream setting.

Auditory Processing Abilities Test

The APAT uses a model based on a hierarchy of auditory processing skills that are basic to listening and processing spoken language. Developed for children ages five years up to the age of thirteen, this test determines a student's specific auditory processing strengths and weaknesses. The results of ten subtests (e.g., traditional evaluation such as auditory memory, processing of sentences and extended material/passages, phonemic processing, cued recall) quantify and define the severity of auditory processing disorders and can be used to document and monitor a student's improvement in auditory processing skills as a result of intervention.

According to Chute, P. & Nevins, M. (2009), there are many educational tools assess classroom performance of students with hearing loss, including the Screening Identification for Targeting Educational Risk (SIFTER; Anderson, 1989), Listening Inventories for Education (LIFE;

Anderson & Smaldino, 1998), and Assessment of Mainstream Progress (AMP; Chute & Nevins, 2006). The AMP was developed in response to the early mainstreaming of students with Cochlear Implants; it determines a student's readiness for mainstream placement and monitors mainstream progress. The Assessment of Mainstream Progress (AMP; Chute & Nevins, 2006) was developed specifically in response to the early mainstreaming of students with cochlear implants to determine a student's readiness for and progress in mainstream placement. The rating form has two versions, one for preschool/kindergarten and one for elementary/high school. For a student in early intervention, mainstream readiness would be evaluated by the early intervention service provider.

Over several days, the provider would observe behaviors to provide a basis for the rating. The AMP requires the service provider to rate a general percentage of time a particular behavior was observed. The following scale, modeled on a bell curve, was utilized: 0%–4%, 5%–25%, 26%–50%, 51%–75%, 76%–90%, 91%–100%. Students who are successful in the mainstream are often scored at 76 percent or greater on positively worded questions (Chute, 2002).

The pre-K/kindergarten version assesses a student's:

- General response to speech/music
- Attempts to communicate through speech/other modality
- Communication frustration
- Leadership
- Initiation of peer interaction
- Turn-taking skills
- Imitation
- Small group activity interaction
- Distractibility
- Risk-taking
- Ability to follow classroom routines
- Confidence
- Play skills

The questionnaire for students in elementary and high school is completed by the classroom teacher and includes information about the educational setting, including physical configuration of the classroom and class size, and a description of all services the student receives. A six-point assessment scale is used to rate the student across various instructional and social domains. The teacher is asked to provide a class ranking of the student with a cochlear implant relative to their classmates.

The elementary/high school version assesses the student's:

- General response to speech
- Response using speech/other modality
- Response to communication breakdown
- Spontaneous imitation ability
- Ability to follow instructions
- Attention during teacher-directed activity
- Level of participation in an activity

- Ability to comment (e.g., on-topic, off-topic, or enriching)
- Comprehension of instruction
- Ability to indicate lack of comprehension
- Recitation behavior
- Turn-taking skills
- Distractibility
- Participation in group discussion
- Ability to follow classroom routine
- Willingness to take learning risks
- Leadership

C. Sample Evaluation Protocol for Students Suspected of DHH

1. Obtain information on the student's acoustic and phonemic access to sound.
    - What can the student hear aided and unaided (may be obtained from audiologist reports)?
    - What has the student's language input been since birth? Has the student been spoken to in ASL, spoken language (English only), spoken language in another language, etc.?
    - How long has the student had amplification? This determines hearing age.
2. Gather/review parent information.
3. Gather and review classroom/educational data and assess overall functional performance in the classroom.
4. Conduct LING 10 to determine if the student's amplification is working and working appropriately.
5. Observe the student in various school environments and activities.
6. Conduct various assessments of auditory skills, speech, and language.
    - Norm-referenced assessment
    - Dynamic assessment
    - Language sample
    - Narrative analysis
    - Phonological awareness probe
    - Cottage Scale (CASLLS)
    - Speech sound production measure
    - Iowa Medical Consonant Test
    - Early Speech Perception Test (ESP)
    - The Auditory Perception Test for the Hearing Impaired (APT/HI-R)
    - The Test of Auditory-Processing-3 (TAPS-3)
    - Auditory Processing Abilities Test (APAT)

D. Intervention, Accommodation, and Collaboration

- Strategies that serve SLPs well when working with hearing students often do not suffice for clinical work with DHH students because language *exposure* (i.e., the presence of input in the student's environment) is not enough. What is necessary is *access*: that is, the student must be able to perceptually receive and cognitively process the signals that are being sent. Moeller and Tomblin (2015) identify several factors that influence a DHH

student's auditory access to spoken input: aided audibility (including appropriate fitting of hearing aids and mapping of cochlear implants), consistent use of hearing technology, and the nature of the linguistic input in the student's environment (quantity and quality).

- The educational success of students who are DHH is extremely dependent on a strong oral language foundation, comprehensive support, an integrated approach, systematic and explicit instruction with extensive repetition. Identification and support at a young age can make a tremendous difference on the trajectory of achievement and push in or co-teaching can be especially valuable for very young students.

- Careful consideration should be given to the communication modality and environment for students with hearing loss. They may use alternative communication modalities such as American Sign Language, cued speech, lip reading, spoken language, total communication, or any combination of these. Additionally, students with hearing loss may benefit from assistive listening and augmentative/alternative communication devices. Thus, the educational environment is highly impacted by these functional communication needs. Administrators and teachers must work cooperatively to decrease the adverse impact by providing appropriate environmental and instructional accommodations and interventions to meet the unique needs of the student. Special consideration must be given to the method of instruction delivery, as most students with hearing loss receive a high percentage of input through visual modalities, as opposed to auditory.

- For there to be access to communication throughout the educational environment, there must be simultaneous access to multiple communication partners. In addition to a high-fidelity signal that automatically adjusts to a variety of communication situations and environments, it must also be consistent and interference free. The instrumentation must also be user friendly and cosmetically acceptable as well as capable of coupling to a variety of technologies such as computers that are used in the educational setting (Thibodeau and Johnson, 2005).

- The services provided by the SLP, educational audiologist, and classroom teacher are critical to the student's success, but of reduced value if conducted in isolation. It is only when the professionals are in regular communication regarding their (re)habilitation efforts that the student receives maximal reinforcement (Thibodeau and Johnson, 2005).

- Families with children with hearing loss sometimes change their communication habits or learn special skills (e.g., sign language, SEE sign, cued, total communication) to help their children learn language. This may require assistance and collaboration from the school-based personnel. Families may decide on one or more modalities based on the unique needs of their home environment. Below are examples of language modalities and skills associated with them:
    - Auditory oral: natural gestures, listening, speech (lip) reading, spoken speech
    - Auditory verbal: listening, spoken speech
    - Bilingual: American Sign Language (ASL) and English
    - Cued speech: cueing, speech (lip) reading

- Total communication: conceptually accurate signed English (CASE)/Pidgin Signed English (PSE), signing exact English (SEE), finger spelling, listening, manually coded English (MCE), natural gestures, speech (lip) reading, spoken speech

Abbreviated List of References

Annett, M. (June 10, 2003). Arizona, Virginia School Districts Recognize Values of CCCs. ASHA Leader.

American Speech-Language-Hearing Association. (2004) K-6 Schools. National Outcomes Measurement System. Rockville, MD: Author.

American Speech-Language-Hearing Association. (2002). Technical Report: Appropriate school facilities for students with speech-language-hearing disorders: Technical report. ASHA Supplement 23.

American Speech-Language-Hearing Association. (2002). A workload analysis approach for establishing speech-language caseload standards in schools: Guidelines. Rockville, MD: Author.

American Speech-Language-Hearing Association. (2000). IDEA and Your Caseload: A Template for Eligibility and Dismissal Criteria for Students Ages 3 – 21. Rockville, MD: Author.

American Speech-Language-Hearing Association. (1999). Guidelines for the Roles and Responsibilities of the School Based Speech-Language Pathologist. Rockville, MD: Author.

Anthony, J. L., Aghara, R. G., Dunkelberger, M. J., Anthony, T. I., Williams, J. M., & Zhang, Z. (2011). What Factors Place Children with Speech Sound Disorders at Risk for Reading Problems? *American Journal of Speech-Language Pathology*, *20*(2), 146–160.

Berry, J. R., & Oetting, J. B. (2017). Dialect Variation of Copula and Auxiliary Verb BE: African American English–Speaking Children with and Without Gullah/Geechee Heritage. *Journal of Speech, Language, and Hearing Research*, *60*(9), 2557–2568.

Board of Audiology and Speech-Language Pathology. (2004). Regulations Governing the Practice of Audiology and Speech-Language Pathology. Richmond, VA: Author.

Brice, A. (2002). Guidelines for English-speaking SLPs in Treating Bilingual Patients. Available at asha.ucf.edu/ASHA2002.html.

Chesterfield County Public Schools. (2001). Auditory Processing: Best Practice Guide. Richmond, VA: Author.

Chute, P. & Nevins, M. (2009) Serving Students with Hearing Loss in the Schools. ASHA Leader. 14(12)

Connecticut State Department of Education. (1999). Guidelines for Speech and Language Programs. Vol. II: Determining Eligibility for Special Education Speech and Language Services. Hartford, CT: Author.

Council for Exceptional Children. (2003). Mentoring Induction Principles and Guidelines. Reston, VA: Author.

Crowe, K., & McLeod, S. (2020). Children's English consonant acquisition in the United States: A review. *American Journal of Speech-Language Pathology*, *29*(4), 2155–2169.

Derr, A. (July 2003). Growing Diversity in Our Schools-Roles and Responsibilities of Speech-Language Pathologists. Special Interest Division 11 Perspectives on Language Learning and Education. Rockville, MD: American Speech-Language-Hearing Association.

Fairfax County Public Schools. (2003). Culturally and Linguistically Diverse Exceptional Students (CLiDES) Handbook. Fairfax, VA: Author.

Farquharson, K. (2015). After Dismissal: Examining the Language, Literacy, and Cognitive Skills of Children with Remediated Speech Sound Disorders. *Perspectives on School Based Issues*, *16*(2), 50–59.

Homer, E.M. (October 10, 2002). Dysphagia Teams in School Settings. ASHA Telephone Seminar.

Horgan, D & Simeon, R.J. (1991). The Downside of Marketing, Performance, and Instruction, 30(1) 34-36

Hulme, C., & Snowling, M. J. (2012). Learning to Read: What We Know and What We Need to Understand Better. *Child Development Perspectives*, *7*(1), 1–5.

Jakubowitz, M and Schill, M.J. (2008) Ethical Implications of Using Outdated Standardized Tests School Based Issues 9: 79-83 Kentucky Department of Education. (2002).

Kentucky Eligibility Guidelines for Students with Speech or Language Impairment. Frankfort, KY: Author References and Resources Speech-Language Pathology Services in Schools: Guidelines for Best Practice Virginia Department of Education, Office of Special Education and Student Services

Laing, S. & Kamhi, A. (2003). Alternative assessment of language and literacy in culturally and linguistically diverse populations. Language, Speech and Hearing Services in Schools. 34.

Meline, T. & Paradiso, T. (2003). Evidence based practice in schools: Evaluating research and reducing barriers. Language, Speech, and Hearing Services in Schools. 34. 273-283.

Miccio, A.W. (2002). Clinical problem solving: Assessment of phonological disorders. American Journal of Speech-Language Pathology. 8, 347-363.

Moore-Brown, B. & Montgomery, J. (2001). Making a Difference for America's Children. Speech-Language Pathologists in the Public Schools. Eau Clair, WI: Thinking Publications.

Nelson, N. (1996). Opening remarks: Are we asking the wrong question? Division 1 Newsletter. (April 1996). American Speech-Language-Hearing Association.

Oetting, J. (2014). Language Impairment in Children who Speak Nonmainstream Dialects. *The Clinical Research Education Library, 1*(1), 1.

Plake, L., Impara, J. & Spies, R. (Eds.) (2003). The Fifteenth Mental Measurements Yearbook. Buros Center for Testing. Power-deFur, L. (March 20, 2001). Reducing Caseloads: A Potpourri of Ideas. ASHA Leader.

Power-deFur, L. (April 2001). Making changes: Advocacy suggestions for reducing caseloads. Special Interest Division 16 School Based Issues. Rockville, MD: American Speech-Language-Hearing Association.

Power-deFur, L. (2000). Serving Students with Dysphagia in the Schools? Educational Preparation is Essential! Language, Speech and Hearing Services in Schools. 31, 76 – 78.

Preston, J., & Edwards, M. L. (2010). Phonological Awareness and Types of Sound Errors in Preschoolers with Speech Sound Disorders. *Journal of Speech, Language, and Hearing Research, 53*(1), 44–60.

QIAT Consortium. (August 2003). Quality Indicators for Assistive Technology Services in Schools. www.qiat.org.

Rehabilitation Act of 1973. 34 CFR § 104.

Rosa-Lugo, L & and Allen, S. (2011). Assessing Listening Skills in Children with Cochlear Implants: Guidance for SLP. ASHA Leader. 16 (3)

Roninson, O. (April 2003). But they don't speak English! Bilingual students and speech-language services in the public school. Special Interest Division 16. School Based Issues. Rockville, MD: American Speech Language-Hearing Association.

Roseberry-McKibbin, C. (2021). Multicultural Students with Special Language Needs: Practical Strategies for Assessment and Intervention (4th Edition). Academic Communication Associates.

Sattler, J.M. (1988). Assessment of Children. (3rd edition). San Diego, CA: Jerome M. Sattler Publisher.

Secord, W. (March 22, 2002). Classroom Performance Assessment: Where Meaningful Access Begins! Presentation to Speech-Language-Hearing Association of Virginia.

Seidenberg, M. (2018). Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It (Reprinted.). Basic Books.

Shriberg, L. & Kwiatkowski, J. (1982). Phonological disorders III: A procedure for assessing severity of involvement. Journal of Speech and Hearing Disorders. 47. 256-270. Speech-Language Pathology Services in Schools: Guidelines for Best Practice Virginia Department of Education, Office of Special Education and Student Services 75

Smit, A., Hand, L., Freilinger, J., Bernthal, J., & Bird, A. (1990). The Iowa Articulation Norms Project and its Nebraska Replication. Journal of Speech and Hearing Disorders. 55. 779 – 798.

Virginia Board of Education. (2010). Regulations Governing Special Education Programs for Children with Disabilities in Virginia. Richmond, VA: Author.

Virginia Board of Education. (2000). Guidelines for Mentor Teacher Programs for Beginning and Experienced Teachers. Richmond, VA: Author.

Virginia Board of Education. (1998). Licensure Regulations for School Personnel. Richmond, VA: Author.

Virginia Department of Education. (2002). Guidelines for Participation of Students with Disabilities in the Assessment Component of the State's Accountability System. Richmond, VA: Author.

Virginia Department of Health. (1999). Virginia School Health Guidelines. Richmond, VA: Author.

Virginia Institute for Developmental Disabilities. (2001). Creating collaborative IEPs: A handbook. Richmond, VA: Virginia Commonwealth University.

Weiss, C. (1980). Weiss Comprehensive Articulation Test. Austin: Pro-Ed.

Young, V. A., Barrett, R., & Young-Rivera, Y. (2018). Other People's English: Code-Meshing, Code-Switching, and African American Literacy (Working and Writing for Change) (Rev. ed.). Parlor Press.

Appendix A Westby Play Scale

Stage	Age	Play	Language
Presymbolic			
Stage I:	**8 to 12 months**	(Object permanence) Aware that objects exist when not seen; finds toy hidden under cloth, box, etc., associates object with location (Means-end/Problem Solving) Attains toy by pulling cloth on which toy is resting or by pulling string; Touches adult to continue activity. **Unoccupied play:** explores moveable parts of toy; Does not mouth all toys. Uses several different schemes (patting, banging, turning, throwing, etc.); uses some differential schemas on familiar objects)	Joint attention for toy and people, no true language, but may have performative words that are associated with action; gives and shows objects. Uses the following communicative functions: requests and demands.
Stage II:	**13 months to 17 months**	(Object permanence) Aware that objects exist separate from location; finds objects hidden in first one place and then in a second or third location, (Means-end/Problem Solving) Understands "in-ness;" dumps objects out of bottle, Hands toy to adult if unable to operate, Hands toy to adult to get attention, uses index finger to point to desired object. Recognizes operating parts of toys (attends to knobs, levers, buttons), Discovers operations of toys through trial and error, Construction of toy relationships (e.g., puts one toy in another such as figure in car; nests boxes), Uses familiar objects appropriately	Use of context dependent single words (e.g., child may use the word "car" when riding in a car, but not when he sees a car); words tend to come and go in child's vocabulary. Uses the following communicative functions: request, protest, command, label, interactional, response, personal, greeting
	- by 18 months	**Solitary Play:** uses one realistic object at a time familiar everyday activities in which child is active participant (e.g., eating, sleeping) short, isolated pretend actions auto symbolic pretend, (e.g., child feeds self pretend food)	Language is used to get and maintain toys as well as to seek assistance operating toys (e.g., "baby," "mine," "help")
	-by 22 months	**Onlooker Play:** uses two realistic objects at a time, themes involve familiar everyday activities that caregivers do (e.g., cooking, reading), performs actions on two people (e.g., uses spoon to eat from plate; feeds mom, then doll)	Uses word combinations to comment on toy or action; uses word for intents, needs, feelings ("want that," "mad," "hungry")
	-by 24 months	**Onlooker Play:** uses several realistic objects for multischeme combinations of steps (e.g., put doll in tub, wash, and dry)	Talks to doll briefly; describes some of the doll's actions (e.g., "baby sleeping"); uses phrases and markers for -ing and plurals/possessives.
	-by 30 months	**Onlooker Play:** common themes of play but less frequently experienced or especially traumatic experiences (e.g., shopping, doctor) emerging limited doll actions (e.g., doll cries)	Talks to doll and comments on doll's actions with increasing frequency

	-by 3 years	**Pretend Play:** themes have been observed, but not personally experienced activities (e.g., police, firefighter); Re-enacts experienced events, but modifies original outcomes, temporal sequences of multischeme events (e.g., prepare food, set table, eat food, clear table, wash dishes), child talks to doll in response to doll's actions (e.g., "don't cry now," "I'll get you a cookie."); brief role play with peers (e.g., mother/child; doctor/patient)	Uses complete sentences with past and future tense; may comment on what they have just completed or what they will do next (e.g., "Dolly ate the cake." "I'm gonna wash dishes.")
	-by 3 1/2 years	**Pretend Play:** use of small props, figures, and objects; Attributes emotions and desires to dolls; reciprocal role taking with dolls (child treats doll as partner-talks for doll and as mom)	Uses dialogue for dolls and metalinguistic markers (e.g., "he said"); uses words to refer to emotions and thoughts.
	-by 4 years	**Pretend Play:** use of imaginary props (language and gesture help set the scene), familiar fantasy themes (e.g., Batman, Wonder Woman, Cinderella, etc.); violent themes common, planned play events with cause-effect sequences (e.g., child decides to play a birthday party and gathers necessary props and assigns roles)	Uses language to plan and narrate a story line; uses the connecting words "so, because, but"
	-by 6 years	**Collaborative play:** use of more than one role per doll (doll is mother, wife, doctor) create novel fantasy characters and plots	Elaborate planning and advanced narrative story line; uses sentences with temporal markers such as "then, when, while, before, first, next"
Symbolic			
Stage III:	**17-19 months**	Child exhibits internal mental representation, Tool-use (uses stick to reach toy, finds toy invisibly hidden (when placed in a box and box emptied under scarf), Pretends using life-like props, does not stack solid ring, Familiar, everyday activities (eating, sleeping) in which child has been an active participant, Short isolated schemas (single pretend actions)	Uses words to direct, request, command, interactional, self-maintain, protest, protecting self and self- interests, comments, labels, and indicates personal feelings. Beginning of true verbal communication. Words have the following functional and semantic relations: recurrence, existence, nonexistence, rejection, denial, agent, object, action or state, object or person associated with object or person
Stage IV:	**19-22 months**	**Parallel/Pretend Play:** activities are familiar to others (cooking, reading, cleaning, shaving); Short schema combinations (child combines two actions or toys in pretend, e.g., rocking doll and putting it to bed; pouring from pitcher into cup, or feeding doll), Child acts on doll/doll is passive recipient of action; brushes doll's hair, covers doll with blanket, Child performs pretend actions on more than one object or person, e.g., feeds self, doll, mom or another child	Refers to objects and persons not present, requests information. Beginning of word combinations with following semantic relations: agent-action, action-object, agent-object, attributive, dative, action-locative, possessive.

Stage V:	**2 years**	**Pretend Play:** elaborated single schemas (represents daily experiences with details, e.g., puts lid on pan, puts pan on stove; collects items associated with cooking/ eating such as dishes, pans, silverware, glasses, highchair, Reverses roles "I'll play you and you play me."	Comments on activity of self (get apple), comments on doll (baby sleep). Uses phrases and short sentences Appearance of morphological markers: present progressive (ing) on verbs, plurals, possessives.
Stage VI:	**2 ½ years**	**Pretend Play:** represents less frequently personally experienced events, particularly those that are memorable because they are pleasurable or traumatic such as store shopping, doctor-nurse-sick child, talks to doll, Reverses dyadic/ complementary roles ("I'll play x and you play y."), e.g., doctor/ patient; shopper/cashier	Responds appropriately to the following WH questions in context: what, who, whose, where, what...do; Asks WH questions; Responses to why questions are inappropriate except for well-known routines.
Stage VII:	**3 years**	A**ssociative play:** i.e., children do similar activities, may share same role, but no organized goal, reenacts experienced events, but modifies original outcomes, Evolving episode sequences, e.g., child mixes cake, bakes it, washes dishes	Reports, predicts, emerging narrating or storytelling. Uses regular and irregular past tense as well as future tense (particularly "gonna") forms.
Stage VII:	**3 to 3 ½ years**	**Pretend play:** activities with replica toys (Fisher Price/ Playmobil dollhouse, barn, garage, village, airport), Uses one object to represent another (Stick can be a comb, chair, car), Uses blocks and sandbox for imaginative play. Blocks used as enclosures (fences, houses) for animals and dolls, Play represents observed events, i.e., events in which child was not an active participant (policemen, firemen, war, cowboys, schemas/scripts from TV shows)	Projects: gives desires, thoughts, feelings, to doll or puppet; Uses indirect requests, e.g., "mommy lets me have cookies for breakfast."; Changes speech depending on listener; Increased reasoning and metacognition. Descriptive vocabulary expands; uses terms for following concepts: shapes, sizes, colors, textures, and spatial relations. Uses metalinguistic and metacognitive language, e.g., "He said...;" I know...."
Stage IX:	**3 ½ to 4 years**	**Associative play:** uses dolls and puppets to act out routines schemas/scripts, Child or doll has multiple roles (e.g., mother and wife; fireman, husband, father), Hypothesizes "what would happen if/"	Uses language to take roles of character in the play, stage manager for the props, or as author of the play story. Uses modals (can, could, may, might, would), Uses conjunctions (and, but, so, because, if) NOTE: Full competence for modals and conjunctions does not develop until 10-12 years of age.
Stage X:	**5 years**	**Collaborative play:** i.e., play roles coordinated and themes are goal-directed. Highly imaginative activities that integrate parts of known schemas/scripts for events child has never participated in or observed (e.g., astronaut builds ship, flies to strange planet, explores, eats unusual food, talks with creatures on planet)	Some appropriate responses to why and how questions requiring reasoning. Uses relational terms (then, when, first, last, next, while, before, after) Note: Full competence does not develop until 10-12 years of age.

Adapted from: Westby, C.E. (2000). A scale for assessing development of children's play. In K Gitlin-Weiner, A. Sandgrund , & C. Schaefer (Eds.), Play diagnosis and assessment. New York: Wiley.

Appendix B Sample Teacher Referral for Speech-Language Observation K-5th

Student: _____ Grade: _____

School: _____Does the student have Limited English proficiency? __Yes__ No

In comparison with their peers:		NEVER	SOMETIMES	ALWAYS
1	The student is difficult to understand and/or appears frustrated when speaking.			
2	The student has a hoarse and/or nasal voice that does not seem related to a cold or allergies.			
3	The student has difficulty with phonological awareness activities (e.g., rhyming, sound blending, syllable segmentation).			
4	The student has difficulty asking and/or responding to questions.			
5	The student has difficulty making their wants and needs known.			
6	The student has difficulty using complete sentences or correct grammar.			
7	The student has limited vocabulary.			
8	The student has difficulty expressing an idea or event (e.g., what he did over the weekend).			
9	The student struggles to interact appropriately with same age peers.			
10	The student exhibits part-word or word repetitions, sound blockages, or excess facial or neck movement when speaking (i.e., stuttering).			
11	The student demonstrates difficulties in the educational environment that are different from same age/grade peers.			

Description of the communication concern and its impact on classroom or educational performance **(this section must be completed):**

Teacher Signature: _____Date Completed: _____

Appendix C Preschool Parent Checklist

Student: _____ Date of Birth: _____

Age: _____ What language is spoken at home: _____

		NEVER	SOMETIMES	ALWAYS
1	I can understand what my child says to me			
2	People outside of our family can understand what my child days			
3	My child can follow directions			
4	My child can talk to me in sentences			
5	My child can answer questions that I ask			
6	My child asks questions			
7	My child can take turns talking with me in a conversation			
8	My child can tell someone their name and age			
9	My child can tell you the emotion that they are feeling			
10	My child can tell simple stories or tell me something about their day			
11	My child enjoys being read to			
12	My child has difficulty getting their words out			
13	My child has an unusual sounding voice			
14	My child enjoys playing with other children their age			
15	My child enjoys using imaginative play to act out familiar routines like cooking or acting out a favorite TV show character			
16	My child asks for my help			

Please use this space to describe the concerns you have about your child's speech and language development:

Parent Signature: _____ Date Completed: _____

Appendix D Sample Speech-Language Observation of Student K- 5th

Student Name: _____ SLT/SLP: _____

Teacher Name/Grade: _____ Observation setting: _____

Date of Observation: _____ Length of Observation:_____

Does the student have limited English proficiency? □ Yes □ No

Referral concerns are in the area of: □ Articulation □Language □Voice □Fluency □Other:

Articulation (including blends): *(circle any observed errors)*

0-3 yrs /b, n, m, p, h, w/	3-5 yrs /d, g, k, f, t, y/	≥5 years /v, ʤ, s, z, sh, ch, l, r, er, th/
□ Age appropriate Concerns noted:		

Language:

Narrative skills	□ Age appropriate	Language concerns noted:
Play skills with peers, social interactions	□ Age appropriate	
Sentence length, Syntax, Morphology	□ Age appropriate	
Ask/Answer Wh questions	□ Age appropriate	
Vocabulary, Descriptive language	□ Age appropriate	
Participation in large group/small group	□ Age appropriate	

Voice:

□ Hoarse	□ Breathy	□ Breaks in pitch	□ Monotone	□ Nasal	□ Raspy	□ Too loud	□ Too soft
□ Age appropriate Concerns noted:							

Fluency:

□ Hesitations □ Repetitions of words, syllables or sounds □ Rephrase/restarts □ Avoidance □ Distracting behaviors			
Conversational Fluency:	0-50%	50-75%	75-100%
□ Age appropriate Concerns noted:			

Interventions/Strategies Observed Being Used by Teacher:

□ Teacher was not observed to use specific communication support strategies
□ Model correct productions □ Emphasizes correct sound □ Student located near point of instruction □ Visual cues □ Reducing complexity of language □ Teacher points out critical information □ Peer buddy □ Provision of clarification □ Repeats or rephrases directions □ Pre-teaches new vocabulary □ Allows extra time for student response □ Models appropriate interactions □ Other:

Summary:

Is the student's communication comparable to peers? □ No □ Yes

Is there a reason to suspect disability under IDEA? □ No □ Yes

Are general education interventions warranted? □ No □ Yes - Indirect or Direct

Appendix E Sample Speech-Language Observation of Preschool Student

Student Name: _____ SLT/SLP: _____

Teacher Name/Grade: _____ Observation setting: _____

Date of Observation: _____ Length of Observation:_____

Does the student have limited English proficiency? □ Yes □ No

Referral concerns are in the area of: □ Articulation □Language □Voice □Fluency □Other:

Articulation: *(circle any observed errors)*

0-3 yrs /b, n, m, p, h, w/	3-5 yrs /d, g, k, f, t, y/	≥5 years /v, ʤ, s, z, sh, ch, l, r, er, th/
□ Age appropriate Concerns noted:		

Voice:

□ Hoarse □ Breathy □ Breaks in pitch □ Monotone □ Nasal □ Raspy □ Too loud □ Too soft
□ Age appropriate Concerns noted:

Fluency:

□ Hesitations □ Repetitions of words, syllables or sounds □ Rephrase/restarts □ Avoidance □ Distracting behaviors
Conversational Fluency: 0-50% 50-75% 75-100%
□ Age appropriate Concerns noted:

Language:

Social	□ (15-18 mths) points, shows, gives objects □ (18 – 21 mths) takes turns during conversation □ (21-24 mths) gives "high five" □ (24-27 mths) shares □ (27-30 mths) cleans up when asked □ (30-33 mths) shows affection/preference specific children □ (30-36 mths) wants to do things their own way □ (36-48 mths) follows social rules and routines that have been explained to them □ (48-60 mths) uses a variety of strategies to solve problems and conflicts
Play	□ (15-18 mths) hands toy to an adult for assistance □ 18 – 21 mths) uses vocalizations/words during play □ (21-24 mths) engages in pretend play □ (24-27 mths) uses toys appropriately □ (27-30 mths) engages in parallel play □ (30-33 mths) acts out familiar routines during play □ (30-36 mths) uses one object to represent something else □ (36-48 mths) tries things they are not sure they can do □ (48-60 mths) plays and interacts cooperatively with other children in a group
Receptive	□ (15-18 mths) identifies body parts on self □ (18 – 21 mths) follows commands for "come here" and "sit down" □ (21-24 mths) follows unfamiliar commands □ (24-27 mths) understands size concepts □ (27-30 mths) answers simple questions □ (30-33 mths) answers "yes/no" questions □ (30-36 mths) answers most questions □ (36-48 mths) understands different methods of communication (gestures, facial exp, etc.) etc.) □ (48-60 mths) shows interest in letters, especially those in their name
Expressive	□ (15-18 mths) use of at least 15 meaningful words □ (18 – 21 mths) uses 2–3-word phrases □ (21-24 mths) refers to self by name □ (24-27 mths) imitates words □ (27-30 mths) responds to greetings □ (30-33 mths) uses plurals and prepositions □ (30-36 mths) talks in sentences □ (36-48 mths) asks questions □ (48-60 mths) initiates and carries on conversations with others

Summary:

Is the student's communication comparable to peers? □ No □ Yes

Is there a reason to suspect disability under IDEA? □ No □ Yes

Are general education interventions warranted? □ No □ Yes - Indirect or Direct

Appendix F Sample SLP Observation Results and Recommendations

Student: _____ Date of Obsv: _____

Teacher/Grade: _____ School: _____

Request for observations was made by (name, position/relationship to student): _____

Reason for Observation: Student is **not** suspected of having a disability in the area of speech and language, but the SLP has been asked to share their input and expertise.

Findings:

☐ **1.** The SLP observation, teacher information, and other sources of data do **not** reveal concerns indicative of a speech-language impairment under IDEA.

☐ **2.** Items marked below were noted during the observation which may benefit from collaborative support and indirect interventions recommended by the SLP and administered by:
□ Gen Ed teacher □ SPED teacher □ Parent/caregiver □ School Psych □Other:

___ Rephrase directions using clear language in short, simple sentences.

___ Provision of training or professional development to staff on: _____

___ Training on dialectal differences and code meshing

___ State the purpose of the activity or text to be read, activate background knowledge about the topic, and preview key vocabulary before beginning or engaging in the content.

___ Model appropriate speech and/or language. For example, *"**Him** is sitting there" or "**He** is sitting there"?* In modeling back what was heard and the correct target, you help the student to understand the appropriate use and context. This works for articulation as well ("You can't wait for **w**ecess or you can't wait for **r**ecess?").

___ Teach specific and expected social expectations and reinforce them with praise (i.e. "I really like how you raised your hand instead of interrupting me when I was talking to the class.")

___ Follow this routine for introducing new vocabulary (adapted from LETRS, 2019):

a) Pronounce the new word, have the student repeat it after you, break it apart by syllables, analyze meaningful parts (grammatical endings, prefixes and suffixes, base word, etymology)
b) Explain what the word means using a student friendly definition using visual or experiential supports.
c) Give examples of how to use the word and what the word does not mean.
d) Ask questions about the word's meaning that can be answered "yes" or "no"
e) Elicit word use by the student

___Practice program is attached for □ classroom teacher □ practice at home

___ Other:

☐ **3.** The following concerns were noted and may benefit from direct interventions in general education by the SLP. *The team will need to meet to discuss all concerns, all possible interventions, and appropriate period of time to implement interventions and review progress.*
Area(s) of concern:

☐ **4.** There **is** a reason to suspect a possible speech-language impairment under IDEA. *The team/teacher should proceed with referral due to suspected disability.*
SLP: _____ Date: _____

Appendix G Sample Teacher Documentation of Educational Impact

Educational Assessment of Students Speech-Language Skills (EASLS)

Student: _____ Date: _____

Teacher/Grade: _____ School: _____

Does the child have limited English proficiency? ___Yes___ No

Academic Performance:

I.	Reading	Writing	Social Studies	Science	Math
Current Grades					
Other Assessment Scores (MAP, ITBS, CogAt, SC Ready, etc.)					

II. In comparison to peers…				
Reading, spelling, writing skills in comparison to peers:	Above average	Average	Below Average	Well below average
			Student's reading level is _____ At least half or more of peers in the class are between a level ____ - _____	
Student performance in all other aspects of the educational school day	Student performs similarly to peers in most areas	Student struggles with one or more areas when compared to peers	Student struggles in most areas when compared to peers	Student has very limited ability in most areas

Communication Skills: *Please compare the student's performance to that of their classmates.* Answer all questions by placing a circle around the appropriate answer.

	No	Sometimes	**Yes***
	***If YES is circled for <u>any</u> items please complete items on page two**		
Is the student's communication different from their classmates?	N	S	Y
Do you have difficulty understanding this student?	N	S	Y
What percentage of time are you able to understand the student?	0-50%	50-75%	75-100%
Does the student avoid speaking in class?	N	S	Y
Do peers tease the student about the way s/he talks?	N	S	Y
Do you feel the student's speech and language skills negatively affect their academic performance?	N	S	Y
Does the student's speech and language skills influence their personal adjustment (including adult and peer relationships)?	N	S	Y
Does the student have difficulty understanding curriculum vocabulary and/or concepts?	N	S	Y
Does the student require excessive "wait time" to either comprehend or respond?	N	S	Y

	No	Sometimes	**Yes***
Does the student have difficulty expressing ideas in an organized and coherent manner?	N	S	Y
Does the student use incorrect grammar?	N	S	Y
Does the student have difficulty asking relevant questions?	N	S	Y
Does the student struggle with spelling and/or reading?	N	S	Y
Does the student exhibit noticeable hesitations, repetitions and/or tension when speaking?	N	S	Y
Does the student's voice sound unusual (e.g., hoarse, nasal, high pitched, too loud or soft)?	N	S	Y
Does the student mispronounce sounds or words?	N	S	Y
Have the parents expressed concerns regarding communication?	N	S	Y

This section must be completed for any items circled "yes" above:

- Describe concerns about the student's speech and language skills and how it is impacting their academic progress.

- List any strategies that you have used in the classroom to support the student's communication needs.

- What adaptations, strategies or accommodations have you used to assist the child with communication in the classroom setting?

- Additional Comments:

Teacher's Signature: _____ Date: _____

Appendix H Sample Intelligibility Rating Scale

Rating Scale of Intelligibility

*Adapted from Intelligibility in Context Scale (McCleod, Harrison and McCormack, 2012)

Student Name: _____ Date form completed: _____

Language Spoken in the Home: _____

Person Completing the Form: _____

Relationship to the Student: _____

Directions:

- The following questions are about how much the child's speech is understood by others. Please think about the child's speech over the past month and circle one number for each question.

	Always	Usually	Sometimes	Rarely	Never
1. Do you understand the child?	5	4	3	2	1
2. Do other teachers of the student (i.e., related arts) or other family members understand the child?	5	4	3	2	1
3. Do substitutes or extended family members understand your child?	5	4	3	2	1
4. Do the friends of the child understand them?	5	4	3	2	1
5. Do others/other students understand the child?	5	4	3	2	1
6. Did the child's previous teacher have difficulty understanding the child?	5	4	3	2	1
7. Do visitors to the classroom or strangers understand the child?	5	4	3	2	1
This section is to be completed by the Speech-Language Pathologist: Total of all circled numbers = _____ ÷ by 7 = An Intelligibility in Connected Speech score (ICS) of ____					

Additional Questions:

- Is the child aware of when they may be difficult to understand? □ Yes □ No
- Is the child bothered/concerned by any difficulty speaking? □ Yes □ No
- Are you concerned about how well you or others understand the child? □ Yes □ No

Please use the space below to share any additional information:

Appendix I Sample Phonological Awareness Probe

Phonological Awareness Probe

Student: _____ Age: _____ Date: _____

Teacher/Grade: _____ SLP: _____

Phonological awareness is the ability to hear the sounds of language separate from their meaning and is more closely related to success in reading than intelligence (Torgesen, 1997)**.** The advanced level skill of phonemic awareness is closely connected to reading connected texts is the strongest single predictor of word reading difficulties (e.g. Pennington, et al. 2012; Snowling, 2000). Each skill probed below is the age by which 80-90% of students should have demonstrated mastery (Adams et al., 1998; McInnis, 1999; Gillon, 2004; Goswami, 2000; Paulson, 2004; Rath, 2001; Kilpatrick, 2016). For this probe, one section or all sections may be administered depending on the age and needs of the student.

Part 1: Phonological and Phonemic Awareness

Directions:

- Administer the section appropriate for the student's age/grade. However, if the student does not meet passing criterion, it is advisable to administer lower level probes in order to assist with goal writing.
- Administer all three skill sets per age range and all three prompts per skill.
- Student must answer all three prompts accurately and **within two-four seconds** to be counted as correct. Incorrect responses are marked with a 0. Extra time may be given for the student to answer, but circle the entire prompt and note how often responses were slow, but accurate in the findings/report.
- Passing criterion is accurately completing **all three prompts** per skill set for a minimum of **two out of three skill sets** within the targeted age range. For example, a four year old child would be considered to have met criterion if they were able to complete all three prompts for awareness of words in sentences, all three word discrimination prompts, but perhaps not accurately completing all syllable blending prompts.

	Skill Set One	Skill Set Two	Skill Set Three
3 years (PreK)	**Skill 1: Rhyme Matching** Prompt: In this room, can you find something that sounds like caper or laper? That's right "paper"!" Let's do some more…	**Skill 2: Rhyme Participation** Prompt: I'm going to forget a word, can you tell me the word that I need to say?	**Skill 3: Syllable Blending** Prompt: I am going to break a word apart and say it like a robot. You have to guess the word. (Examiner must put a brief pause between each syllable)
	___ bright or pight (light) ___ fair or gair (chair or hair) ___ bore or zoor (floor)	___ Hickory, dickory, dock. The mouse ran up the _____ (clock) ___Twinkle, twinkle little star. How I wonder what you _____ (are) ___One, two buckle my shoe. Three, four shut the _____ (door)	___ wa-ter ___ straw-ber-ry ___ mac-a-ro-ni
4 years (4k)	**Skill 1: Discrimination Real vs. Nonsense Words** Prompt: Which one of these is **not** a real word?	**Skill 2: Rhyme Production** Prompt: Give me a word that rhymes with…	**Skill 3: Onset Rime Blending** Prompt: I'm going to say a word, but I am going to break it up in a funny way. See if you can guess the word.
	___ bug – wug ___ sing - jing ___ zish - dish	Wish:_____ Ring:_____ Cat: _____	___ /d/ - "og" ___ /g/ - "ame" ___ /ch/ - "eese"

5 years - 5 ½ years (or the first two semesters of K5)	**Skill 1: Rhyme String Production** Prompt: Tell me as many words as you can that rhyme with… (minimum of 2-3 real or nonsense words)	**Skill 2: Phoneme Blending (CVC)** Prompt: I am going to break a word apart and say it like a robot. You have to guess the word. (Examiner must put a brief pause between each sound)	**Skill 3: Alliteration** Prompt: How many words can you think of that start with /t/ (Evaluator must ***not*** *say "the letter "tee")*. Student must think of 3 words that start with /t/ within 5-6 seconds.
	#___ rock #___ bear #___ car	___ /sh/ /o/ /p/ (shop) ___ /l/ /uh/ /v/ (love) ___ /f/ /o/ /n/ (phone)	
5 ½ years - 6 years (or the last two semesters of K5)	**Skill 1: Phoneme Segmentation** Prompt: How many sounds do you hear in the word "—"?	**Skill 2: Deleting Syllables** Prompt: I'm going to say a word, then I am going to tell you NOT to say part of the word.	**Skill 3: Phoneme Identification** Prompt: What is the first sound you hear in "—"
	___ stop (4) ___ hat (3) ___ ice (2)	___Say "cowboy", but don't say "cow" (boy) ___ Say "sidewalk", but don't say "walk" (side) ___ Say "birthday", but don't say "birth" (day)	___ boat /b/ ___ school /s/ (not /sk/) ___ girl /g/
6 years (1st grade)	**Skill 3: Onset Rime Blending (CCVC)** Prompt: I'm going to say a word, but I am going to break it up in a funny way. I want to see if you can guess the word.	**Skill 2: Onset and Rime Deletion** Prompt: I'm going to say a word, then I am going to tell you NOT to say part of the word.	**Skill 3: Phoneme Blending (CVCC/CCVC)** Prompt: These words have been broken apart by each of their *sounds*, I want you to put them back together.
	___ "st" - "op" ___ "sp" - "oon" ___ "br"- "own"	___ Say "chart", but don't say /ch/ (art) ___Say "nice", but don't say /n/ (ice) ___Say "hear", but don't say /h/ (ear)	___ /b/ /l/ /a/ /ck/ = black ___ /m/ /o/ /s/ /t/ = most ___ /th/ /r/ /o/ /t/= throat
7 years (2nd grade)	**Skill 1: Phoneme Manipulation (Initial Blend Deletion)** Prompt: I'm going to say a word, then I am going to tell you NOT to say part of the word.	**Skill 2: Phoneme Manipulation (Final Consonant Deletion)** Prompt: I'm going to say a word, then I am going to tell you NOT to say part of the word.	**Skill 3: Phoneme Manipulation (Final Blend Deletion)** Prompt: I'm going to say a word, then I am going to tell you NOT to say part of the word.
	___ Say "stop", but don't say /s/ (top) ___ Say "great", but don't say /r/ (gate) ___ Say "broom", but don't say/b/ (room)	___ Say "plate", but don't say /t/ (play) ___ Say "time", but don't say /m/ (tie) ___ Say "boat", but don't say /t/ (boat)	___ Say "fast", but don't say /s/ (fat) ___ Say "list", but don't say /s/ (lit) ___ Say "lamp, but don't say/p/ (lamb)

8 years and above (3rd grade and above)	**Skill 1: Phoneme Manipulation (Initial Consonant Substitution)** Prompt: I am going to give you a word to say, but then I want you to *change* the first sound.	**Skill 2: Phoneme Manipulation (Final Consonant Substitution)** Prompt: I am going to give you a word to say, but then I want you to *change* the last sound.	**Skill 3: Phoneme Manipulation (Medial Phoneme/Vowel Substitution)** Prompt: I am going to give you a word, but I want you to *change* the sound in the middle.
	___ Say "pick", but change the /p/ to /l/ (lick) ___ Say "shape", but change /sh/ to /r/ (rake) __ Say "hose", but change /h/ to /n/ (nose)	___ Say "fort", but change the /t/ to /k/ (fork) ___ Say "quiz", but change /z/ to /t/ (quit) ___ Say "tan", but change /n/ to /p/ (tap)	___ Say "bag", but change /a/ to /i/ (big) ___Say "hot", but change /o/ to /a/ (hat) ___ Say "wall", but change /ah/ to /i/ (will)

Part Two: Connecting Sounds to Symbols

This is included as part of the phonological awareness probes because of the close connection between knowledge of the letter **sounds** and what they look like in print which has a critical impact on word level reading.

- This is most appropriate for students after the first half of K5 as well as 1st grade and up.
- For the phoneme section, the student must state the **sound** that letter makes, **not** the letter name.
    - Circle the letter sound produced incorrectly. Note: Adding a schwa sound after the phoneme is counted as an error (ex. "puh" for /p/ or "tuh" for /t/).
    - The student should demonstrate knowledge that the letters "c", "g", "oo" and "th" can make more than one sound. They may be prompted by asking "Is there another sound that it can make?"
    - **Pay careful attention to if the student says the letter sound with repetition (ex. /a/ /a/, /a/) as this may interfere with word reading due and difficulty blending sounds (ex. /c/ /c/ /c/ /a/ /a/ /a/ /t/ /t/ /t/ is blending nine sounds instead of three and can obscure the ability to blend the sounds in order to hear the word).
    - Developmental expectations are as follows:
        - K5 Beginning of Year (end of 1st quarter) 0-16,
        - K5 Middle of Year (end of 2nd quarter) 16-26,
        - K5 End of Year 32/32

Prompt for the phoneme level section:

- What sounds do these letters/groups of letters make? (show on the attached student paper/form)

Prompt for the nonsense word reading section:

- Now I am going to show you some silly words and I want you to read them to me (see attached)
    - The student must accurately decode all 15 words which are comprised of basic consonants, vowels, vowel digraphs, consonant digraphs, diphthongs, morphemes and basic phonic rules. *These are skills a student would likely master or need to master by the end of first grade. Circle all that are read incorrectly.*

Word level dictation section:

- The words from list are made up of basic consonants, vowels, vowel digraphs, consonant digraphs, diphthongs, morphemes and basic phonic rules which should be mastered by the end of first grade. The word "whole" is a homophone and **requires the sentence prompt**. If the student writes the word "hole" that is an error. *These are skills a student would master or need to have mastered by the end of first grade.*

Prompt: “Write these words for me (on a separate piece of paper)”

1. queen – “The queen lives in a castle.”
2. whole – “I have a whole bunch of books in my class.”
3. flowers – “I love the smell of flowers.”
4. called – “My friend called me on the phone last night.”
5. dream – “I had a dream that I was at Disney World with Mickey Mouse.”
6. dusty – “The old house was dusty and smelly.”
7. trucks – “The big trucks drove down the highway to deliver food to the store.”
8. liked – “I liked it when I could go to school and learn new things.”

Look carefully at the errors:

- **PA**- Phonological Awareness: *Is a sound missing or out of place?*
  - If there are missing sounds (missing letters that represent a sound) or there are letters that are out of place, this is likely to indicate weaknesses in *phonological and phonemic awareness.* Examples include gril for girl, sop for stop, pig for peg, and chain for train.
- **MA** – Morphological Awareness: *Are the affixes applied correctly to the base word? Is the derived word related to base word?*
  - If there are errors related to the grammatical morphemes, (i.e. cardsz for cards, pusht for pushed), this may be due to difficulty with understanding the rules for what morphemes “look like” in print. Errors where the word is not related to the base word (i.e. magishun for magician or akshun for action) is also related to a difficulty with understanding morphology. Check to see if the student applies these morphological terms in spoken language.
- **PH**- Phonics: *Is a “rule” broken?*
  - If the student writes the words “like they sound”, but the word is still incorrect because of an error that violates the rule for the allowable and acceptable patterns for how to represent sound via letters or combinations of letters (phonics), then the student is likely struggling with gaps in their phonics knowledge. Examples include ran for rain, rok for rock, and brij for bridge. To determine if the student should have mastered this phonics pattern, look at the scope and sequence of the phonics instruction used. It should be systematic, explicit and teach skills along a continuum of simple to complex within an organizing concept (i.e. vowel digraphs, open syllables, closer syllables, vowel controlled r, etc.).
- **OM** - Orthographic Mapping: *No rule is broken, no sounds or letters are out of place, no morphemes are included or incorrect, and the word means what it is supposed to mean, but it doesn’t look right.*
  - If the student writes the word “like it sounds” and no rule is broken. but the word is still incorrect (i.e. recieve for receive, vaccum for vacuum, dreem for dream) the student has likely not yet acquired proficiency with orthographic mapping of the word and/or has had too few (less than three) exposures to seeing the word in print. Orthographic mapping difficulties are due to difficulties with a combination of phonological long term memory (familiarity with the word even if they do not know the meaning), phonemic awareness and phonics.

- **S**- Semantics: *Are there any errors based on meaning?*
    - If the student writes words like "hole" for "whole", these errors are based on difficulties with homophones and/or homonyms. Additional examples include bear for bare, there for their, which for witch, and won for one.

Part Three: Written Language Sample

This is most appropriate for first grade after instruction in foundation skills should have taken place. Obtain a writing sample from the student. This could be from the student's writing journal, classwork or have the student write from a prompt (i.e. favorite summer activity, favorite holiday and why, write about a pet or sibling). Use the description below to determine which phase the student is in and in order to determine instructional targets.

- **Pre-alphabetic:**
    - The prealphabetic phase occurs in preschool and very early kindergarten.
    - Student writes strings of letters, may know some, has little or no alphabetic knowledge, and may alternate letter or struggle with spacing. An example would be scribble with some letters that are poorly formed and not connected to the sounds they represent.
- **Early alphabetic:**
    - The Early alphabetic phase occurs in early kindergarten.
    - Represents a few sounds (usually at the beginning and ending of a word) and fills in other sounds with random letters. Examples include kerld for colored, fer for fish, pcragl for people.
- **Later alphabetic:**
    - The later alphabetic phase is typically achieved by late kindergarten or early first grade.
    - Spelling is phonetically accurate with all speech sounds represented and use of conventional letter sequences and phonic patterns. Examples include pak for pack, wit for white, presindint for president.
- **Consolidated alphabetic:**
    - The consolidated alphabetic phase begins sometime in second grade and continues to develop through additional word study instruction throughout elementary school years.
    - Word knowledge includes a demonstration of understanding of word origins, morphemes, syntactic constraints, as well as root words and affixes. In addition, students are able to generalize phonics skills to unknown words and compose readable compositions with use of appropriate conventions.

- For older students who may be able to write paragraphs, look for errors as outlined in part two (phonemic awareness, morphology, phonics, orthographic mapping, and semantics). In addition, look closely for errors related to sentence structure (syntax) and conventions being careful to consider any and all dialectal influences which should not be counted as errors, but indicate the need additional time and direct instruction as well understanding of when writing using native dialect may and may not be appropriate.

Name: _____ Date/Grade: _____

k	x	w	t
o	v	e	r
sh	oo	oy	aw
s	a	j	n
g	f	z	d
h	p	u	th
b	m	l	i
q	c	y	ch

ob	leck	chun
lunded	drom	nisty
rimping	stesk	laip
ceege	zotes	vike
moy	thurf	toust

1. _____ 5. _____

2. _____ 6. _____

3. _____ 7. _____

4. _____ 8. _____

Appendix J Sample Stimulability Probe

MICCIO STIMULABILITY PROBE

Student: _____ Date of Probe: _____

Teacher/Grade: _____ SLP: _____

The following is a summary of the process described in Clinical Problem Solving: Assessment of Phonological Disorders (Miccio, 2002)

1. Only sounds absent from the inventory are tested.

2. The student is asked to imitate these specific consonants in isolation and nonsense syllables. Those sounds correctly imitated some of the time (at least 30 percent of possible opportunities) are presumed to be stimulable.

3. Provide the student 10 opportunities to produce a sound: in isolation and in three-word positions in three vowel contexts, [i], [u], and [ɑ]. The corner vowel contexts: a high (or close) unround front vowel, a high round back vowel, and a low unround vowel usually reveal any consonant-vowel dependencies Pronunciation key: /i/ as in me, /ɑ/ as in mom, /u/ as in hoop

4. If multiple sounds are absent from the inventory, the probe may be shortened by administering only one vowel context during the initial assessment.

Adapted from Miccio, A. (2002) Clinical Problem Solving: Assessment of Phonological Disorders. AJSLP. Volume 11, Issue 3. Pages 221 – 229

	Prompt: "Look at me, listen, and say what I say."										
Sound	Isolation	__i	i__i	i __	__ɑ	ɑ__ɑ	ɑ__	__u	u__u	u__	_ % Correct
p											
b											
t											
d											
k											
g											
θ											
ð											
f											
v											
s											
z											
ʃ											
ʒ											
tʃ											
dʒ											
m											
n											
ŋ											
w											
j											
h											
l											
r*				/ear/			/ar/			/er/	

*SLP may also want to probe the remaining vowel controlled /r/s: ___ /or/ ___ /air/ ___ /ire/

Appendix K Sample Percent of Consonants Correct

Percent of Consonants Correct

Student: _____ Date of PCC Probe: _____

Teacher/Grade: _____ SLP: _____

The abbreviated procedures below are based on the recommendations of Johnson, Weston, and Bain (2004) and Shriberg and Kwiatkowski (1982):
- Imitative samples of 36 sentences with appropriate MLU for the student's age should be used.
- Present sentences using a conversational tone without exaggerated prosodic cues (Johnson, Weston & Bain 2004).

To determine the PCC value, count the total number of consonant errors and use the formula below.
1. Mark errors directly on the list of sentences for efficient scoring. Only consonants are scored, not vowels (i.e., only the consonantal /r/ is scored).
2. Score only the first production of a consonant if a syllable is repeated (e.g., ba-balloon). Score only the first /b/.
3. Do not score consonants if a word is unintelligible or only partially intelligible.
4. Errors include substitutions, deletions, distortions, and additions. Voicing errors are only scored for consonants in the initial position of words.
5. If /ng/ is replaced with /n/ at the end of a word, do not score it as an error. Likewise, minor sound changes due to informal speech and/or selection of sounds in unstressed syllables are not scored as errors.
6. Dialectal variations are **not** scored as errors.

We see one big dog. /wi si wʌn bɪg dɔg/	Watch them dance. /watʃ ðɛm dæns/	I brought bugs and things. /ɑɪ brɔt bʌgz æn θɪŋz/	Put one flower on his head. /pʊt wʌn flaʊɚ ɑn ɪz hɛd/
Mother talks on the new phone. /m ʌðɚ taks an ð ə nu fon/	Everybody goes around. /ɛvrɪbədɪ goz ərɑʊnd/	One boy went behind the balls. /wʌn bɔɪ wɛnt bɚhaɪnd ðə bɑlz/	She can't get inside yet. /ʃi kænt gɛt ɪnsaɪd jɛt/
The baby has a pretty toy. /ðe bebɪ hœz ə prɪtɪ tɔɪ/	He took dinosaurs. /hi tʊk dainəsɔrz/	Pieces are all over. /pisəz ɑr ɑl ovɚ/	A lady climbed. /ə ledɪ klaimd/
Mom says, "Sit down." /mɑm sɛz sɪt daʊn/	Look, he can pull. /lʊk he kæn pʊl/	He got cold. /hi gɑt kold/	All kids work. /ɑl kɪdz wɝk/
You'll be fine with teacher. /jʊl bi fɑɪn wɪθ tɪtʃɚ/	They just made cars. /ðeɪ dʒɪs meɪd kɑrz/	Time to clean up. /tɑɪm tə klin ʌp/	Maybe this will move now. /mebɪ ðɪs wɪl muv nɑʊ/
Oh no, the door shut! /oʊ noʊ ðə dɔr ʃʌt/	Now he can read. /nɑʊ hi kæn rid/	We want more food. /wi wʌnt mɔr fud/	They are very tired. /ðe ɑr vɛrɪ tɑɪɚd/
She looks happy. /ʃi lʊks hæpɪ/	Now he wants water. /nɑʊ hi wʌnts wɑtɚ/	He can open a door. /hi kæn opən ə dɔr/	We'll rest awhile. /wil rɛst əwɑɪl/
Some kids are playing. /sʌm kɪdz ɑr pleɪŋ/	She fell down. /ʃi fɛl daʊn/	Come into the room. /kʊm ɪntu ðə rum/	The dog is watching. /ðə dɑg ɪz wɑtʃɪŋ/
She is looking in. /ʃi ɪz lʊkɪŋ ɪn/	What is so funny? /wʌt ɪz so fʌnɪ/	Move the bug off. /muv ðə bʌg ɑf/	Time to go home. /tɑɪm tə go hom/

273 Consonants - _____ errors = _____/273 x 100 = _____

PCC Score =_____

Appendix L Speech Sound Assessment Summary

Speech Sound Assessment Summary

Student Name: _____ Date: _____

- Review all assessment data prior to completing this form.
- For each assessment area column, circle the item that best represents the student's performance.
- When a valid comparison to a normative sample cannot be made or a student has significant impairments, consider completion of the Functional Communication Summary form.
- Is the student multilingual or bidialectal? ___ Yes ___No
  If yes, what is the student's primary language or dialect spoken? _____
  If yes, which speech sounds observed in the assessment are considered unique to the language or dialect and not considered to be in error:

	Academic Activities, Tests, and Related Measures At least 2 out of 3 must be in moderate or substantial range			**SLP Probes, Tests and Measures** At least 2 out of 3 must be in moderate or substantial range			
				I. Speech Sound Production		II.	III.
	Data sources: teacher checklist, classwork and observations of oral, & written language in school settings	Phonological Awareness probes	Intelligibility in Connected Speech (ICS) across settings	Speech sound production (McLeod & Crowe 2020)	and/or Phonological Processes	Stimulability	Severity - %age of Consonants Correct (PCC)
No Apparent Impact	Performs similarly to peers in most areas	Meets age appropriate norms	ICS 4 or 5 Age 3: 75% Age 4: 85% Age5+: 90%	Meets norms for acquisition	No significant error processes.	Error sounds are 90% stimulable	PCC value more than 95%
Minimal Impact	Evidence of struggle in one or more areas when compared to peers	One PA skill does not meet age or grade appropriate norms	ICS $\leq$ 3 Age 3: 65–75% Age 4: 75 – 85% Age 5+: 81-90%	One-two sounds do not meet norms for acquisition	One or more occur: - Gliding - CR with /s/ - Vowelization post-vocalic /r/ or /l/	Error sounds are 60 – 89% stimulable	PCC value of 85 – 94%
Moderate Impact	Evidence of struggle in most areas when compared to peers	Two skills do not meet age or grade appropriate norms	ICS $\leq$ 3 Age 3: 50 – 64% Age 4: 65 – 74% Age 5+: 70 – 80%	Three-four sounds do not meet norms for acquisition	One or more occur: - WSD - DEP - initial CR /l/, /r/, /s/ -Velar fronting	Error sounds are 50 - 59% stimulable	PCC value of 50 – 84%
Substantial Impact	Evidence of very limited ability in most areas	Three or more skills do not meet age or grade appropriate norms	ICS $\leq$ 3 Age 3: <70%	Five or more sounds do not meet norms for acquisition	One or more occur: - ICD - FCD - Stopping - DEP final	Error sounds are less than 50% stimulable	PCC value less than 50%

Phonological Process Abbreviations: CR – Cluster Reduction WSD – Weak Syllable Deletion FR – Fronting Gliding- Gliding of liquids DEP- Depalitalization of Singletons FCD- Final Consonant Deletion ICD- Initial Consonant Deletion

Appendix M Language Assessment Summary

Language Assessment Summary

Student Name: _____ Date: _____

- Review all assessment data prior to completing this form.
- For each assessment area column, circle the item that best represents the student's performance.
- When a valid comparison to a normative sample cannot be made or a student has significant impairments, consider completion of the Functional Communication Summary form.
- Is the student multilingual or bidialectal? ___ Yes ___No
  If yes, what is the student's primary language or dialect spoken? _____
  If yes, which features of language observed in the assessment are considered unique to the language or dialect and not considered to be in error:

	Academic Activities, Tests, and Related Measures			**SLP Probes, Tests and Measures** At least 3 out of 5 must be in moderate or substantial range in addition to similar findings from classroom observation, teacher checklist, work and/or written language samples, interviews		
	Data sources include: teacher checklist, classwork, interviews, and observations of work samples or written language samples in school settings	Because language is the foundation for literacy, the measures below are applicable for documentation of the student's understanding and use of language for educational purposes. Phonological Awareness (PA) probes	Narrative Skills	Language Sample (morphology, syntax, pragmatics)	Dynamic Assessment	Norm-referenced tests with appropriate sensitivity and specificity
No Apparent Impact	Performs similarly to peers in most areas	Meets age-appropriate norms for PA	Meets age-appropriate norms	Meets age-appropriate norms	Able to complete all steps of dynamic assessment for targeted skill(s), improvement noted, and/or requires no support	1 or 2 composite scores 1 SD and below the mean and above. SS $\geq$ 76, $\geq$ 16th%ile, scaled score $\geq$7
Minimal Impact	Evidence of struggle with one or more areas when compared to peers	One PA skill does not meet age or grade appropriate norms	Two to three skills do not meet age appropriate norms	One to two skills in any one area do not meet age appropriate norms	Able to complete most or all steps of dynamic assessment for targeted skill(s), improvement noted, and/or requires no support or minimal support	1 or 2 composite scores that document 1.5 SD below the mean, SS between 71-77, 3rd%ile -15th%ile, scaled score of 5-6
Moderate Impact	Evidence of struggle in most areas when compared to peers	Two PA skills do not meet age or grade appropriate norms	Narrative skills are one year below age appropriate norms	Three to four skills in any one area do not meet age appropriate norms	Able to complete one-three steps of dynamic assessment for targeted skill(s), limited improvement noted, and/or requires moderate support	1 or 2 composite scores that document score that are 2 SD below the mean, SS of 70, 2nd %ile, scaled score of 4
Substantial Impact	Evidence of very limited ability in most areas	Three or more PA skills do not meet age or grade appropriate norms	Narrative skills are two years or more below age expected age appropriate norms	Five or more skills in any one area do not meet age appropriate norms	Unable to complete all steps of dynamic assessment for targeted skill(s), no improvement noted, and/or requires maximum support	1 or 2 composite scores that document scores that are 2.5 SD below the mean SS of 69 or below, 1st %ile, scaled score of 3

*Scores should be composite scores from the full battery of subtests, not individual subtest scores. # This example assumes a mean of 100 and standard deviation of 15 points.

Appendix N Fluency Assessment Summary

Fluency Assessment Summary

Student Name: _____ Date: _____

- Review all assessment data prior to completing this form.
- For each assessment area column, circle the item that best represents the student's performance.
- When a valid comparison to a normative sample cannot be made or a student has significant impairments, consider completion of the Functional Communication Summary form.
- Is the student multilingual or bidialectal? ___ Yes ___No
  If yes, what is the student's primary language or dialect spoken? _____
  Does the student demonstrate dysfluency characteristics in both languages? ___ Yes ___No

	Academic Activities, Tests, and Measures At least 2 out of 3 must be in moderate or substantial range			**SLP Probes, Tests and Measures** At least 2 out of 4 columns must be in moderate or substantial range			
	Data sources include: teacher checklist, observations of oral, & written language in school settings.	Observation of student speaking across a variety of contexts during school	Overall Assessment of the Speaker's Experience of Stuttering (OASES)	Frequency of Dysfluency	Description of Dysfluency	Associated Non-vocal Behaviors	Avoidance
No Apparent Impact	Performs similarly to peers in most areas	Ability to verbally communicate is similar to peers in most contexts	Score of 0-19	Less than 4% vocal dysfluencies per speaking minute, below 5% of syllables stuttered, < 3 dysfluencies per minute	• Primarily whole multisyllabic word repetitions • Occasional whole-word interjections and phrase/sentence revisions • Less than 1 second pauses OR less than 4 iterations	No associated behaviors	Does not avoid speaking situations
Minimal Impact	Evidence of struggle with one or more areas when compared to peers	Ability to verbally communicate is similar to peers with occasional exception, but does not impact message	Score of 20-44	4% vocal dysfluencies per speaking minute, 5-10% of syllables stuttered, 3 – 5 dysfluencies per minute	• Transitory dysfluencies in specific speaking situations including repetitions, prolongations, blocks, hesitations or interjections, and vocal tension. • 1 second pauses OR 4 iterations	One associated behavior that is noticeable, but not distracting	Usually does not avoid speaking situations
Moderate Impact	Evidence of struggle in most areas when compared to peers	Ability to verbally communicate is dissimilar to peers across half or more contexts	Score of 45-74	6 – 10% vocal dysfluencies per speaking minute, 10-15 percent of syllables stuttered, 6 – 10 dysfluencies per minute	• Frequent dysfluencies in many speaking situations including repetitions, prolongations, blocks, hesitations or interjections and vocal tension • 2 second pauses OR 5 iterations	One associated behavior that is noticeable and distracting	Does avoid some speaking situations
Substantial Impact	Evidence of very limited ability in most areas	Ability to verbally communicate is dissimilar to peers across almost all contexts	Score of 75-100	10% or more vocal dysfluencies per minute, 15-20% of syllables stuttered, 11 or more dysfluencies per minute	• Habitual dysfluencies in a majority of speaking situations, including repetitions, prolongations, blocks, hesitations or interjections, and vocal tension • 3 or more second pauses OR 6 or more iterations	Two or more associated behaviors that are noticeable and distracting	Generally avoids speaking situations

Appendix O Voice Assessment Summary

Voice Assessment Summary

Student Name: _____ Date: _____

- Review all assessment data prior to completing this form.
- For each assessment area column, circle the item that best represents the student's performance.
- When a valid comparison to a normative sample cannot be made or a student has significant impairments, consider completion of the Functional Communication Summary form.
- Has the student received a medical examination from an otolaryngologist (i.e., ear, nose, and throat physician)? ___ Yes ___ No
- Is therapy contraindicated based on the physician's finding/diagnosis? ___ Yes ___ No
- Is there evidence that the student's difficulties in the area of voice may be related to temporary factors such as respiratory virus, infection, allergies, short-term vocal abuse, or puberty? ___ Yes ___ No
  If yes, describe:

	Academic Activities, Tests, and Measures At least 2 out of 3 columns must be in the moderate or substantial range			**SLP Probes, Tests and Measures** At least 1out of 4 columns must be in the moderate or substantial range			
				Quality	**Resonance**	**Loudness / Intensity**	**Pitch**
	Data sources include: teacher checklist, classwork, or review of oral, & written language in school settings	Observation of student speaking across a variety of contexts during school	Pediatric Voice Index Score (PVI) Teacher and/or Parent	Hoarse, breathy, no voice	Hypernasal or hyponasal	Judged for appropriateness and variability	Appropriateness for age and gender, and for appropriate variability
No Apparent Impact	Performs similarly to peers in most areas	Ability to verbally communicate is similar to peers in most contexts	Score of 0-39	•Voice quality within the range of normal	Normal resonance	Normal loudness	Normal pitch
Minimal Impact	Evidence of struggle with one or more areas when compared to peers	Speech sounds similar to peers with occasional exception, without impact on message	Score of 40-58	•Inconsistent vocal concerns •Noticeable to the trained listener • Average Maximum Phonation Time (9-15 seconds)	• Inconsistent vocal concerns •Noticeable to the trained listener	• Inconsistent vocal concerns • Noticeable to the trained listener	• Inconsistent vocal concerns • Noticeable to the trained listener
Moderate Impact	Evidence of struggle in most areas when compared to peers	Speech sounds dissimilar to peers across half or more contexts	Score of 59-70	•Consistent problems in conversational speech. •Noticeable to all listeners • Below average Maximum Phonation Time	• Consistent problems in conversational speech. • Inappropriate for age, gender or culture • Noticeable to all listeners	• Consistent problems in conversational speech. •Inappropriate for age, gender or culture • Noticeable to all listeners	• Consistent problems in conversational speech. • Inappropriate for age, gender or culture • Noticeable to all listeners
Substantial Impact	Evidence of very limited ability in most areas	Speech sounds dissimilar to peers across almost all contexts	Score of 70 to 81	•Persistent problem. •Noticeable at all times •Significantly below average Maximum Phonation Time	• Persistent problem. • Always inappropriate for age, gender or culture • Noticeable at all times	• Persistent problem. • Always inappropriate for age, gender or culture • Noticeable at all times	• Persistent problem. • Always inappropriate for age, gender or culture • Noticeable at all times

Appendix P Sample Teacher Referral for Social Communication Concerns

Social Communication Teacher Referral

Name: _____ Grade: _____

Teacher: _____ SLP: _____ Date: _____

Does the student demonstrate difficulties in the educational environment that are different from same age/grade peers? □ Yes □ No
Description of concerns:

Specific Pragmatic Language Queries		
	Question	Provide example/description below
1	Describe how the student shares experiences with others – do they tell stories, share interests, pay attention to others?	
2	Describe a time the student initiated an activity with someone else or imitated someone else?	
3	Can you give an example of when the student has told a lie (either to get out of trouble or spare someone's feelings)?	
4	How does the student sound when they talk – is it "off", unusually robotic, or significantly differ ent from peers?	
5	Does the student ever echo words, the last part of what someone has said or use jargon (speech that does not sound like words or make sense)?	
6	Give an example of when the student may have used scripted language out of context? For example, randomly using quotes such as "To infinity and beyond" (from "Toy Story") when it is unrelated to the activity at the moment.	
7	Give an example of a time that the student misunderstood something by using the literal interpretationy (i.e., student was upset because they didn't have any money after being asked to "pay" attention)?	
8	Describe any instances when the student talks specifically about a topic that may be atypical for their age (i.e., manhole covers, garbage trucks, coins, etc.)?	
9	How would the student answer questions that begin with "why do you think?" or "what do you think will happen next?"	
10	Describe a time when the student demonstrated an inappropriate social interaction because they did not know what they were supposed to do in that situation.	

Appendix Q Sample Social Communication Questionnaires

Social Communication Questionnaire – Parent/Caregiver

Student: _____ Date: _____

Person completing form: _____ Relationship to Student: _____

Please Return to: _____ By: _____

1	Does your child have any unusual interests for their age (i.e., interests that children their same age not interested in or a highly specialized interest as opposed to a variety of interests)?	**Yes**	**No**
	○ If yes, what are some things this student appears to be most interested in?		
2	Does your child have strict routines, strong reliance on the same schedule every day or become upset when routines and schedules are changed?	**Yes**	**No**
	○ If yes, please explain the routine and why you think they get upset if it is changed		
3	Once your child learns a social rule/expectation (such as "don't take things without asking" or "don't tell someone they look ugly"), do they continue to break it?	**Yes**	**No**
	○ If yes, **<u>why</u>** do they continue to break it? (Please circle one) *They don't like the rule* *They don't agree with the rule* *They forget the rule in the moment*		
4	Does your child tell lies (either to get out of trouble or spare someone's feelings)?	**Yes**	**No**
	○ If yes, give an example		
5	Does your child have any unusual movements or repetitive movements?	**Yes**	**No**
	○ If yes, please explain what those movements look like and when you see them		
6	Does your child repeat any unusual words or phrases?	**Yes**	**No**
	○ If yes, <u>what</u> are the repeated words/phrases: ○ Give an example of <u>when</u> they use these words/phrases:		

7	Does your child tell simple stories about things such as what happened at school, an event that happened while playing, or retell a story from a book or movie?	**Yes**	**No**
	○ What is one of their favorite topics or stories to talk about?		
8	Is there any history of abuse, neglect, childhood trauma or prenatal exposure to drugs or alcohol?	**Yes**	**No**
	○ If known, please explain		
9	Does your child engage in play with you and/or pay attention to the same activity or object as you (ex. playing a game together, mutually enjoying the activity, looking at the other person while playing to get a sense of their enjoyment, etc.)	**Yes**	**No**
	○ What would you consider their favorite toys, games and activities that they like to do with another person during play?		
10	Gestures you've seen your child demonstrate… *(please circle **all** that you have observed)*		
	Pointing Smiling Making a face when confused Waving hello/goodbye Nod head "yes or no" Shrug shoulders for "I don't know" Give "high five"/fist bump Use hands to show "small or big" size Wide open mouth/eyes when surprised Clapping for something they like Put their hand up for stop/wait		
11	At what age did you begin to have concerns about your child's ability to play and interact with others?		
12	How much of their time is spent using technology at home? *(Please circle one)* *None Less than an hour per day 1-2 hours per day 3 or more hours per day*		
13	What does your child typically do during unstructured time (ex. while riding in a car, while standing in line, when waiting for an appointment, etc.?)		
14	What words have you heard child use to express their feelings and emotions? *(Please circle any you've heard your child use)* Happy Excited Disappointed Sad Mad Frustrated Jealous Tired Uncomfortable Worried Scared Confused Sick Hungry Thirsty		

15	Does your child ask and answer questions?	**Yes**	**No**
16	Does your child understand that different people, places, and events have different expectations? (i.e., do they talk differently to young children than older adults, understand that different places have different expectations such as to be quiet in the library vs. being loud on the playground, etc.)	**Yes**	**No**
17	Does your child attempt to solve problems independently?	**Yes**	**No**
18	Does your child use phrases that start with… "I think __, I feel __, I wonder __, I hope ___"?	**Yes**	**No**
19	Does your child give enough information when speaking so that their point is understood?	**Yes**	**No**
20	Does your child recognize when something does not make sense?	**Yes**	**No**
21	Does your child converse well with others (i.e., take turns in conversation, talk about a variety of topics that are of interest to them *and* the listener, switch topics easily, follow along when the topic has changed, respond to what others have said, end conversations appropriately)?	**Yes**	**No**
22	Does your child follow expected rules for interacting with others (ex. not getting in other's personal space, not being the only person talking, not talking about only their favorite topics, do not take things without asking, do not interrupt)?	**Yes**	**No**
23	Does your child demonstrate active listening through eye contact, "uh-huh," and/or nod?	**Yes**	**No**
24	Does your child understand figurative language (does not take certain words/phrases literally such as "pay attention" and they think they have to give someone money)?	**Yes**	**No**

Please use this space to provide any additional information or observations:

Social Communication Questionnaire - Teacher

Student: _____ Date: _____

Person completing form: _____ Grade/Class taught: _____

Please Return to: _____ By: _____

1	Does the student have any unusual interests for their age (i.e., interests that children their same age not interested in or a highly specialized interest as opposed to a variety of interests)?	**Yes**	**No**
	○ If yes, what are some things this student appears to be most interested in?		
2	Does the student have strict routines, strong reliance on the same schedule every day or become upset when routines and schedules are changed?	**Yes**	**No**
	○ If yes, please explain the routine and why you think they get upset if it is changed		
3	Once the student learns a classroom rule, social rule/expectation, do they continue to break it?	**Yes**	**No**
	○ If yes, **<u>why</u>** do they continue to break it? (Please circle one) *They don't like the rule* *They don't agree with the rule* *They forget the rule in the moment*		
4	Does the student tell lies (either to get out of trouble or spare someone's feelings)?	**Yes**	**No**
	○ If yes, give an example		
5	Does the student have any unusual movements or repetitive movements?	**Yes**	**No**
	○ If yes, please explain what those movements look like		
6	Does the student repeat any unusual words or phrases?	**Yes**	**No**
	○ If yes, <u>what</u> are the repeated words/phrases: ○ Give an example of <u>when</u> they use these words/phrases:		
7	Are you aware of if the student has had any adverse childhood experiences, a lack of opportunity to be exposed to appropriate social skills and/or significant amounts of time spent in digital interactions (excessive screen time, video game playing, etc.) outside of school?	**Yes**	**No**
	○ If yes, please explain		

8	Gestures you've seen this student display… *(please circle **all** that you have observed)*		
	Pointing Smiling Making a face when confused Waving hello/goodbye Nod head "yes or no" Shrug shoulders for "I don't know" Give "high five"/fist bump Use hands to show "small or big" size Wide open mouth/eyes when surprised Clap for something they like Put their hand up for stop/wait		
9	Is the student able to answer questions related to main idea (i.e., what is this story about/what is the main idea of the story)?	**Yes**	**No**
10	Is the student able to summarize, paraphrase, and/or put information into their own words?	**Yes**	**No**
11	Is the student able to answer comprehension questions related to what they read?	**Yes**	**No**
12	Is the student able to compare/contrast? (i.e., answer questions such as "how is ___ the same/different from ___?")	**Yes**	**No**
13	Is the student able to understand cause and effect? (i.e. The American colonists rebelled against the British government by dumping thousands of pounds of tea into the Boston harbor *because* they felt they were being unfairly taxed … for younger students "if you ____, then ____ will happen")	**Yes**	**No**
14	Does the student actively participate in classroom discussions and work in a small group with other students?	**Yes**	**No**
15	Does the student produce writing assignments that are typical for age/grade in terms of content, amount, quality, and clarity?	**Yes**	**No**
16	Does the student ask for help and/or ask for clarification?	**Yes**	**No**
17	Does the student demonstrate an understanding of basic class rules and social expectations in a classroom? (ex. raise your hand to be called upon, take turns, share, cooperate, etc.)	**Yes**	**No**
18	Is the student able to transition from one class to the next or get from one place to another easily within the school building independently?	**Yes**	**No**
19	Is the student able to transition from one class to the next or get from one place to another easily within the school building independently?	**Yes**	**No**
20	Does the student understand that different people, places, and events have different expectations? (i.e., do they talk differently to young children than older adults, understand that different places have different expectations such as to be quiet in the library vs. being loud on the playground, etc.)	**Yes**	**No**

21	Does the student attempt to solve problems independently?	**Yes**	**No**
22	Does the student use phrases that start with… "I think __, I feel __, I wonder __, I hope ___?	**Yes**	**No**
23	Is the student able to answer questions like "Why do you think ____" (without answering "I don't know")	**Yes**	**No**
24	Does the student give enough information when speaking so that their point is understood?	**Yes**	**No**
25	Does the student recognize when something does not make sense?	**Yes**	**No**
26	Does the student converse well with others (i.e., take turns in conversation, talk about a variety of topics that are of interest to them *and* the listener, switch topics easily, follow along when the topic has changed, respond to what others have said, end conversations appropriately)?	**Yes**	**No**
27	Does the student follow expected rules for interacting with others (i.e. not getting in other's personal space, not being the only person talking, not talking about only their favorite topics, do not take things without asking, do not interrupt)?	**Yes**	**No**
28	Does the student demonstrate active listening (i.e., looking in the direction of the speaker, use of "uh-huh", and/or nodding)?	**Yes**	**No**
29	Does the student understand figurative language (does not take certain words/phrases literally)?	**Yes**	**No**
30	Does the student express/name their feelings or emotions appropriately?	**Yes**	**No**

Please use this space to provide any additional information or observations:

Appendix R Phonemic and Linguistic Variations for Students from Culturally and Linguistically Diverse Backgrounds

African American English (AAE), Gullah/Geechee, and Southern White English (SWE) Dialectal Variations from General American English (GAE)

Reminders:

- While not all African Americans speak AAE, a person does not need to be African American to speak AAE.
- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered language development.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Craig, Thompson, Washington, & Potter, 2003; Craig, Kolenic, & Hensel, 2013; Packer, 2001; Kester, E., 2014; Oetting & McDonald, 2001; Oetting & Pruitt, 2005; Oetting et al., 2016, 2019, 2021; Paul & Norbury, 2012)	(Bland-Stewart, 2005; Craig & Grogger, 2012; Craig, Kolenic, & Hensel, 2013; Green& Stockman, 2003; Kester, E., 2014; Packer, M., 2001; Wikipedia, 2013; Wood & Lyngass, 1995)
Phoneme Differences: **<u>Voiced and voiceless /th/ variations:</u>** Production of **/th/** in initial position as /d/, as /v/ or /f/ in medial position, and as /f/ in final position of words **<u>/l/ and /r/ variations:</u>** - Middle and final **/r/** (i.e., all right becomes aiight, star becomes stah) - Middle and final **/l/** (i.e., help becomes hep, "will" becomes wi) - **/r/ blends** variation between a consonant and a back rounded vowel (i.e. throw becomes thow) or initial position **/str/ as /skr/** (i.e. street becomes skreet) - **/l/ or /r/** after vowels (ex. *Dat a po' o'd dog*) **<u>Final consonant variations:</u>** - **Nasality in final position** (looking becomes lookin, man becomes mæ) - **Voiced final consonants** may be unvoiced (i.e., cub becomes cup, his becomes hiss)	**Present Tense Verb "be":** Present tense verb forms of may be marked or unmarked and may be dependent upon the context (i.e., He a boy. The coffee bees cold. There go a bus.) **Past Tense Verb "to be":** Use of the same form "was" with all persons and numbers (i.e. You was going to go. We was going to go.) **Habitual "be:** Continual state (i.e., He be waiting all day. She been buying me clothes.) **Regular Past Tense"-ed":** Use of past tense –ed may be omitted and may be dependent upon the context (i.e. He start crying an hour ago. She been done. They been had that dog.) In some cases, this may be due to the phonology of how final consonant blends are spoken. **Irregular Past Tense Verbs:** Past participle may be marked using past tense -ed (i.e., He knowed it.) **Modals:** Use of double modal (i.e., I might could play) **Present and Past Perfect Verb Forms:** "Been" or "done" are used to show past action that has been completed recently or to emphasize that it was completed a long time ago (i.e., I been there before. I been finished. He been gone.)

- **Glottalization** of consonant in final position (e.g., good becomes [gʊʔ], sight becomes [saɪʔ], talk becomes [tɔʔ]) **Consonant blends:** - **final position** of a word most commonly when the blend includes two unvoiced or two voiced consonants including /nd/, /sk/, /sp/, /ft/, /ld/, /st/, /sd/, and /nt/ (i.e. told becomes toe, test becomes tes) - **Sound reversal** within consonant clusters, with or without consonant reduplication (i.e. ask becomes axe, escape becomes ekscape) **Syllabic variations:** - unstressed syllables in multisyllabic words may not be consistently spoken (i.e., became becomes "came") **Vowel Variations:** Some diphthongs may be spoken as a monothong and/or long vowels may be spoken as a short vowel (especially words with /l/ and /r/ and high vowels to low vowels before a nasal).	**Future Tense Verbs:** "Fixing" or "fixing to" may be used for future tense or future tense auxiliary verb may be unmarked (i.e. They be here soon. He finna go.) **Negation:** Use of multiple negatives and use of the word "ain't" (i.e. Nobody don't never agree with me. I ain't goin'.) **Third Person Singular:** Third person singular may be unmarked or used with the 1st person (i.e., The boy want to run. I does. She want to eats it.) In some cases, this may be due to the phonology of how final consonant blends are spoken. **Plural -s:** Plural –s is marked by number in the sentence (i.e., He have fifty cent. Here two shoe.) In some cases, this may be due to the phonology of how final consonant blends are spoken. **Irregular Plural:** Plural –s is added (i.e. They have three childs.) **Possessive -'s:** When possession is already marked the possessive –s may not be used (ie. That John ball. The car is mine's.) **Pronouns:** Subject, object, and possessive pronouns are marked using variations of the pronoun (i.e., I need them books.). **Article "an":** The article "a" often appears before nouns beginning with a vowel (i.e. I want a apple.) **Prepositions:** Prepositions may appear at the end of the sentence or go unmarked and dependent upon the context (i.e. Where my car at? We got out here.) **Questions:** Invert the verb in indirect questions (i.e. What it is?) **Conditional:** Does not use the word "if" depending on whether or not it is embedded (i.e. I wonder did she go. They asked could I go.) **Comparative and Superlative:** Use of root word with –er in comparative form and addition of –est to superlative form (i.e. this car is gooder. He is the bestest.)

Gullah/Geechee (Berry & Oetting, 2017) Adult Gullah and adult and child AAE "be" forms are similar, but they differ in important ways. Although Gullah and AAE allow variable marking of *is* and *are* and "be" leveling, Gullah also allows variable marking of

- Copula and auxiliary *am, was,* and *were (e.g., She getting her coat)*
- *"been"* for *was* and *were (e.g. I just now been washing it) /də/* for all forms of "be" (e.g. *He de principal*)

Southern White English (Oetting & McDonald, 2001; Oetting & Pruitt, 2005; Oetting et al., 2016, 2019, 2021)

- African American English shares many of the same features as Southern White English (SWE). However, two features that are specific to AAE only include:
  1. use of "I'ma" for "I'm going to" (ex. *I'ma get a haircut today*)
  2. had + ved (ex. *My homework have been done*)
- SWE shares many of the same features as AAE. However, two features that are specific to SWE only include:
  1. done + verb (ex. *I done dropped my fork*)
  2. existential "it" and "they", which are used to fulfill the syntactical requirements of a sentence without providing and explicit meaning (ex. *It was not under the couch*. The word "it" refers to the existence of something not explicitly stated but could be rephrased as *My shoe was not under the couch*.)

Present Tense:

- Present tense verb forms of may be present or absent and may be dependent upon the context (i.e., *He be waiting on you* or *He waiting in the car*)

Past tense:

- Variation of past tense (i.e., *I been knowin' how to read*)

Negation:

- Multiple negation (sometimes referred to as double negatives) are common (i.e., *She ain't got no money for nobody*

Third person irregular verb:

- Third person irregular verbs may be absent or simplified (e.g., *He say yes*)

Irregular past tense:

- Variation in the use of irregular past (i.e., *He falled down the stairs.*)

Zero marking of the word "do"

- The word "do" may not be used (i.e., "Mary, you want some?")

Subject-Verb Agreement

- Variation of subject + verb agreement with "don't" (i.e., *He don't go to my school*) and "be" "be" including habitual use of *be* (i.e., "He *be* gettin' some ice cream") (only used if the action is happening repeatedly).

Pronouns

- Two nouns or noun phrases that refer to the same person and use of alternative pronoun (i.e., *My mama she took me to the movies. Them crayons are broken. Them pullin' them socks*)

Arabic Influenced English Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Amayreh, 2008; Amayreh & Dyson, 1998; Dyson & Amayreh, 2000; Kester, 2014)	(Ager, 2013; Anbray, 2011; Lewis, Simmons & Fennig, 213; Noor, 1996; Shoebottom, 2012; Thompson, 2013; Kester, 2014)
Phoneme Differences: The Arabic has twenty-eight consonants (English twenty-four and eight vowels/diphthongs (English twenty-two). Consonant clusters do not appear in Arabic and short vowels are not an important aspect of the Arabic language. Texts are read from right to left and written in a cursive script. No distinction is made between upper and lower case. English has about three times as many vowel sounds as Arabic, so it is inevitable that beginning learners will fail to distinguish between some of the words they hear, such as *ship*/*sheep* or *bad*/*bed*, and will have difficulties saying such words correctly. The Arabic language does not include the following English phonemes: /p, v, ŋ, dʒ, tʃ, r, e, o, I, ʊ, æ, ʌ, ɔ and ə /. Therefore, the following differences are likely to occur: - Production of /b/ for /p/ - Production of /f/ for /v/ - Consonant clusters may include only on consonant or insertion of schwa - Variations of the production of /θ and ð/ - Variations on vowel productions	**Word order:** Arabic uses subject-verb-object (similar to English) and adjectives follow the noun. **Possessives:** The possessor follows the object (i.e. This is the car of the man.). **Verb inflection:** There are ten varieties of verb forms, and each has its own set of active and passive participles. This causes a variety of verb differences in English. **Modal verbs:** Modal verbs do not exist in Arabic (i.e., "From the possible that I am late" vs. "I may be late"). **Articles:** Definite articles are preceded by "al" (as a prefix), but indefinite articles do not exist in Arabic (i.e., "Alcoffee is ready" for "The coffee is ready"). **Question format:** Questions are marked by a question word with no change in word order (mostly similar to English). **Prepositions:** Prepositions exist in Arabic, but they are not consistent with English prepositions. **Auxiliary verbs:** Auxiliary verbs do not exist in Arabic. **Present tense:** Present tense does not exist in Arabic.

French Influenced English Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Moats and Tolman, 2019, Acevedo, 1993; Goldstein, 2007; Jimenez, 1987, Moats and Tolman, 2019, Kester, 2014)	(Boudrealt etal., 2007; David & Wei, 2008; Desmarais et al., 2010; Kayne, 1981; MacLeod at al., 2014; Royle & Valois, 2020; Sylvestre et al, 2012; Thorardottir, 2005; Thorardottir et al., 2010)
Alphabet: The French alphabet contains the same 26 letters as the English alphabet, plus the letters with diacritics: **é; è à ù; ç** ; **â ê î ô û;** and **ë ï ü**. French ESL students may have interference problems in class when the teacher spells out some words (i.e. commonly write **i** or **j** when teacher says **e** or **g)**. **Phoneme Differences:** The French language (Parisian dialect) does not include the following English phonemes: /r, h, ʧ, ʤ, θ, ð, I, ʊ, æ, ʌ/. Therefore, the following differences are likely to occur: - Difficulties with the vowel sounds in minimal pairs such as *ship/sheep, live/leave, full/fool*. - Differences in production of *th* (/θ/ /ð/), such as *then*, *think* and *clothes* because the tip of the tongue is not used in speaking French. - Production of /h/ may be missing in English words - Replacing of /ch/ with /sh/ in all positions - Reducing final /r/ to the vowel only - Vowel production differences resulting from English vowels that do not appear in French. This also includes nasalized vowels which do appear in French, but not in English. **Speech production difference:** English is a stress-timed language and French is a syllable timed language. Therefore, stress within a word may be different from English.	**Auxiliary verbs:** French does not use the auxiliary *do*, learners may have problems in asking questions. For example, they may simply make a statement and use question intonation: *He is rich?*, or they may invert subject and verb: *How often see you her?* **Present Progressive -ing:** Extra emphasis or insertion of schwa at the end of the word (i.e., going-guh) **Possessives:** French signifies the third person possession through prepositional phrases rather than possessive nouns. (i.e. The car of my brother is red.) **Word order:** Adjectives typically follow the noun. **Regular past tense:** There are 5-6 forms of regular past tense in French and only one in English which may account for differences in English production. **Irregular past tense:** While there are irregular verbs in French, they do not correspond with the same irregular verbs in English. **Question format:** Questions are marked by word order inversion, inflection, or the addition of *est-ce que.*

German Influenced English Dialectal Variations
from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Vocabulary, Morphology and Syntax
(Fox, 2007; Fox & Dodd, 1999; Schafar & Fox, 2006; Maddieson, 1994; Kester, 2014)	(Rintelman, 2012; Shoebottom, 2014; Kester, 2014)
Alphabet: The German alphabet contains the same 26 letters as the English alphabet, plus the three umlauted vowel letters: **ä**, **ö**, **ü**, and the **ß** (scharfes S or double-s). German ML students may have interference problems in class when the teacher spells out words. For example, beginners commonly write **i** or **a** when the teacher says **e** or **r**. **Phoneme Differences:** The English /th/ voiced and voiceless sounds as in words like *the*, and *thing* does not exist in German, and many speakers have problems producing such words correctly. German words beginning with a /w/ are pronounced with a /v/. In German, the final consonant is often not voiced.	**Present tense:** Use of the present simple in German where English uses the future with *will*. This leads to differences such as: *I tell him when I see him.* **Past Tense:** Choosing the correct tense to talk about the past. Typically spoken German uses the present perfect to talk about past events while the same tense used in English produces the incorrect form: *Then I have drunk a milk.* Therefore, when this is present in English, it would not be considered disordered. **Word Order:** The word order in German is flexible as opposed to strict subject-verb-object order of English. **Question format:** In German, questions are marked by inversion or addition of "do" (i.e. "What means that word, please? **Vocabulary:** A German speaker acquiring English as a second language may make word choice errors reflective of difference concepts in the German language especially when one word represents a broader meaning (i.e., "I don't remind" vs. "I don't remember", "We will make a party" vs. "We will have a party", "The homework is very heavy" vs. "The homework is very hard")

Japanese Influenced English Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  - Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  - Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Ota & Ueda, 2007; Fengping, 2007; Ohata, 2004; Paul, Simons, & Fennig; 2014; Shizuo, Kakita, & Okada, 2011; Kester, 2014)	(Fengping, 2004; Power, 2008; Paul, Simons, & Fennig; 2014; Shoebottom, 2014; Vogler, 1998; Kester, 2014)
Phonology: The Japanese language is made up mostly of CV syllable shape clusters and has five vowel phonemes. It is similar to the Korean language due to similarities in syntax and grammar. The Japanese language does not include the following English phonemes: /f, v, l, r, tʃ, ʃ, dʒ, θ, ð, ʒ, ʊ, ə, æ, e, u, ɔ, and I/. In addition, all syllables in the Japanese language receive equal stress, only 6 phonemes appear at the end of words (5 vowels and /n/), and words do not start or end with consonant clusters or the letter /n/. Therefore, the following differences are likely to occur: - Variations in vowel and diphthong production - Consonant clusters may include only on consonant - Addition of a vowel before a word that starts with /n/ (i.e., “enew” for “new”) - Production of /n/ as /m/ before /m, p, or b/ - Variation of /r/ production that may sound similar to a combination of /r/ and /l/	**Word order:** Japanese has flexible word order. **Plurals:** Plurals do not exist in Japanese. **Auxiliary verbs:** Auxiliary verbs do not exist in Japanese. **Verb inflection:** A single form is used regardless of person or number (i.e., “He go”, “My mom work”) **Passive voice:** Passive voice is used and constructed differently than English (i.e., “The girl was cut his hair.”) **Adjectives:** Adjectives precede the noun that they modify (similar to English). **Articles:** Articles do not exist in Japanese. **Pronouns:** Relative pronouns do not exist, and personal or possessive pronouns are not always required. **Prepositions:** Particles may be used to express the relationship between words (i.e., “He brought a small dog of his.”) **Subject:** The subject does not need to be restated if implied or if it has already been stated (i.e., “Went to school.”)

Korean Influenced English Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Kim, 1997; Kim & Pae, 2007; Kim, 2006; Oum, 1994; Kester, 2014)	(Cheng, 1991; Farvor, Kim & Lee, 1995; Farver & Shinn, 1997; Opitz, Rubin, & Erekson, 2011; Pae, 1995; Kester, 2014)
Alphabet: The Korean alphabet consists of fourteen simple consonants and six simple vowels (together with consonant clusters and diphthongs). In South Korea, the Korean alphabet is primary and Chinese characters are used to provide additional meaning. However, in North Korea, there is no instruction in Chinese characters. **Phoneme Differences:** The Korean language does not include the following English phonemes: /b, d, f, g, v, w, j, r, tʃ, ʃ, dʒ, θ, ð, ʒ, ʊ, ə, æ, e, and I/. In addition, the only consonants in the final position in Korean are /t, p, k, m, n, ŋ and l/. Of other interest to note are: /b/ is a allophone of /p/ and never appears in the initial position of words, fricatives and affricates never appear in the final position of words. Therefore, the following differences are likely to occur: - Production of /p/ for /f/ - Production of /b/ for /v/ - Production of /p/ or /b/ - Production of /s/ for /ʃ/ - Production of /ts/ for /tʃ/ - Production of /l/ for /r/ - Production of /ts/ for /tʃ/ - Production of /s/ for /θ/ - Variance in /z/ production - Variations in final consonant production and addition of "ee" or "I" at the end of an English word	**Word Order:** Korean follows subject-object-verb structure as opposed to subject-verb-object (i.e., I bike ride.) **Articles:** Articles do not appear in Korean. **Prepositions:** Prepositions do not appear in Korean. **Third person pronoun:** Third person pronoun does not mark gender (i.e. He is my mother.) **Pronouns:** Repetition of the noun as opposed to use of pronoun (Kim goes to school and Kim studies every day.) **Adjectives:** Adjectives come before the word it modifies (similar to English). **Passive voice:** The same form is used for active and passive meaning (i.e., "The party was bored" for "The party was boring." **Direct object pronouns:** Direct object pronouns are not required in Korean**.** **Modifiers:** Modifiers are placed between verb and direct object (i.e., She speaks very well English.)

- The unvoiced phonemes /p, t, k/ become voiced (/b, d, g/) between sonorant phonemes - Variations of production of consonant clusters as they only appear in inter-syllabic positions in Korean	**Plural:** Nouns are not marked by number (similar to English). **Subject/verb agreement:** Subject/verb agreement is not required (i.e., He go to school.) **Past tense:** Past tense does not exist in Korean. **Future tense:** Present tense is used to talk about the future (i.e., I come next week.) **Auxiliary verbs:** Auxiliary verbs do not exist in negative statements (i.e. I no understand.) **Present progressive:** Present progressive tense does not exist in Korean. **Question format:** Questions do not add modals, there is no subject/verb agreement and answers to "yes/no" questions are by repeating the verb (i.e., Where you went?, He goes to school with you? Do you want more juice: "I want")

Mandarin Influenced English Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Hua, 2007; Hua & Dodd, 2000; Pena-Brooks & Hedge, 2007; Kester, 2014)	(Li & Thompson, 1981; Ross, 1978; Kester, 2014)
Tonal Language: Mandarin is a tonal language meaning that there is a rise and fall of pitch across the syllable which provides meaning to the syllable. This can result in differences in intonation syllable stress and production of multisyllabic words when speaking English. **Phoneme Differences:** Mandarin does not include the following English phonemes: /b, d, g, v, z, r, h, ʃ, dʒ, θ, ð, j, w, ʊ, æ, ʌ, I and ɔ/. In addition, only the phonemes /m/ and ŋ/ in the final position of words and there are no consonant clusters**.** Therefore, the following differences are likely to occur: - Not producing the final consonant in most English words or use of /m/ and ŋ/ in final position - Consonant clusters may include only on consonant - Voiced phonemes may be unvoiced - Confusion between /l/ and /r/ - Confusion between /tʃ / and /ʃ / - Addition of schwa between consonants within a cluster (i.e. puh-lay for play) - Use of /s/ in place of /θ/ - Vowel production differences resulting from English vowels that do not appear in Mandarin	**Pronouns:** In Mandarin, neither gender or case are differentiated. As a result, differences in pronoun use are likely. **Articles:** Articles do not exist in Mandarin. **Conjunctions:** Conjunctions usually conjoin ideas by juxtaposing related sentences as opposed to joining ideas within one sentence. **Word order:** Adjectives typically follow the noun. **Plural -s:** Plural –s is marked by number in the sentence (i.e. He have fifty cent. Here two shoe.) In some cases, this may be due to only the phonemes/ m and ŋ/ appearing in final position. **Verb conjugations:** Verbs in Mandarin do not conjugate to show a change in tense (i.e. I am eat. She eat. The boy read.) **Auxiliary verbs:** Auxiliary verbs do not appear in Mandarin (i.e., I sick)

Russian Influenced English Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Gildersleeve-Neumann & Wright, 2012; Povalyaeva, 2004; Hamilton, 1980; Kedrova, et al., 2002; Ladeford, 2014; Kester, 2014)	(Logoped, 2005 Povalyaeva, 2004; Kester, 2014)
Alphabet: The Russian alphabet is written in Cyrillic (as opposed to Latin-based letters) and there are only six *letters* of the Russian alphabet that look and sound similar to English. They include "A, E, K, M, O and T" **Phoneme Differences:** **The Russian language does not include the following English *phonemes*:** /w, ŋ, dʒ, θ, or ð/. Therefore, substitutions, distortions, or omissions of these sounds should not be considered as in error. Prominent difficulties include: - difficulty with the vowel controlled /er/ phoneme especially in words beginning with /w/ (i.e. work, worth, word) - difficulty is difficulty discriminating between "sat" and "set" or "sit" and "seat" - difficulty with /w/ and /v/ - difficulty with /ng/ at the end of words **Final consonants in Russian are always unvoiced.** Therefore, not voicing the consonant at the end of words should not be considered as being in error. **Present in both Russian and English are voiced and voiceless obstruents as well as consonant clusters.** Therefore, errors in voicing and consonant cluster reduction occurring past appropriate developmental expectations would be considered as being in error.	**Plural:** Russian indicates plural based on how many items they are talking about as well as the gender of the items. Therefore, incorrect use of plural –s in English should not be considered as being in error. **Word Order:** There is great flexibility in Russian word order though the final position of nouns and adjectives "always change depending on their function and position in the sentence" (Sumerset, 2016). Therefore, word order errors should not be considered as being disordered. **Question Format:** Russian learners may ask questions with falling instead of rising intonation and demonstrate subject verb inversion when asking questions. **Articles:** The Russian language does not include articles. **Past and Present forms of "be":** The Russian language does not include verb forms of "be". **Present Progressive:** The Russian language does not include present progressive forms, **Negation:** The Russian language includes use of multiple negation.

Spanish Influenced English (SIE) Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  1. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  2. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Moats and Tolman, 2019, Acevedo, 1993; Goldstein, 2007; Jimenez, 1987, Moats and Tolman, 2019, Kester, 2014)	(Bedore, Pena, & Kester, 2007; Goldstein & Iglesias, 2006; Kester & Gorman, 2004; Moats and Tolman, 2019, Kester, 2014)
Phoneme Differences: **/s/ does not blend with its neighboring consonant** in Spanish which results in… - Reduction of final consonant clusters (i.e., next becomes nes) - Schwa sound inserted before the word in an initial consonant cluster, especially for /s/ clusters (ex. *school* becomes *eschool*) Spanish words end in only the following 10 sounds: /a, e, i, o, u, l, r, n, s, d/ which results in… - **Errors of final consonant production** to include final consonants devoicing and omission (e.g., cart for card, brish for bridge, thing for think) **Spanish does not include the following consonant phonemes:** **/th/ (voiced and voiceless), /j/, /ng/, /sh/, /v/, /z/, and /zh/** which results in substitution errors such as… /t/ for /th/ or /s/ for /th/ (voiceless) (i.e. tum for thumb or mous for mouth). Additional examples are below in order to help demonstrate the need for explicit instruction in these phonemes. /d/ for **/th/ (voiced)** (i.e. dey for they) /f/ for **/th/ (voiceless)** (i.e. teef for teeth) /ch/ for **/sh/** (i.e. shicken for chicken)	**Present Tense Verb "be":** Present tense of the verb form "be" is not always used (i.e. He a boy.) **Word Order:** Word order is flexible (i.e. The ball he threw) **Present Tense:** Determined by the subject (i.e. She talk to me.) **Use of Subject Pronouns:** Pro-drop (i.e. Looks for the frog (or) He looks for the frog.) **Regular Past Tense:** Determined by the subject (i.e. She walk to the store.) **Double Negative:** Can be used (i.e. I don't want to do nothing.) **Question Formation:** Questions marked by inflection or question words (i.e. What you think?) **Multi-purpose Verbs:** Verbs with multiple meanings that not always correspond to English (i.e. Do you have hunger?) **Prepositions:** Spanish has a <u>single preposition</u> (*en)* that corresponds to both *in* and *on. Therefore, differences will be observed often. (i.e.* Put the food in the plate.)

/b/ for **/v/** (i.e. bery for very)

/y/ for **/j/** (i.e. yellow for jello)

/s/ for **/z/** (i.e. fuss for fuzz)

/n/ for **/ng/** (i.e. thin for thing)

Substitutions for **/zh/** may vary (i.e. meassssure for measure or televidin for television)

The following are also **variations of production of consonants between English and Spanish**

- The consonants /t, d, n/ may be dentalized (tongue tip is placed against the back of the upper central incisor)
- Spanish /s/ is produced more frontally than English /s/
- Unaspirated phonemes (sounds like the speaker is omitting the final stop phoneme because it is said with little air release)
- When words start with /h/ the /h/ is often silent
- The consonant letter "r" is tapped or trilled (a tapped /r/ may sound like a flapped /r/ in English as is found in words like "butter or letter")

Spanish has only five vowel phonemes (the short vowel sounds of /a/, /e/, /i/, /o/ and /u/). **Spanish does not include the following vowel phonemes:**
long vowel sounds /a, e, i o, u/,
the schwa,
diphthongs /oi and ou/,
/aw/,
/oo/ (as in noon),
/oo/ (as in book)
some r-controlled vowels

Possessive:
Spanish signifies the third person possession through prepositional phrases rather than possessive nouns. (i.e. The car of my brother is red.)

Plural and Third Person Singular:
Due to the limited number of final consonants as well as /s/ not blending with its neighboring consonants there is often an omission of the plural, possessive, third person singular, and regular past tense morphemes.

Past Tense -ed:
Past tense -ed is not produced due to the phonological rules that prohibit the clustering of consonants at the end of words. Therefore, time reference is provided (i.e. Yesterday, he start selling newspapers.)

Articles:
Articles are often not used (i.e. They went to library).

Comparatives:
Comparative –er may be combined with the word "more (i.e., That house is more bigger.) Similarly, superiority is demonstrated using "mas" (i.e., This stick is more big)

Adverbs:
Adverb often follows the verb (i.e. He drives very fast his car.)

Auxiliary + Verb:
Use of "no" for auxiliary + verb and for the word "don't" in imperative forms (i.e., He no drink milk. He no touch that.) Similarly, the obligatory use of the negative word "not" with the word "until" to indicate a period of duration after which something will begin or end (i.e. He'll be home until seven o'clock.)

Vietnamese Influenced English Dialectal Variations from General American English (GAE)

Reminders:

- The items in this list are not errors – they are dialectal variations.
- Knowing the potential variations benefits student learning by…
  3. Being able to identify non-dialectal variations that may be a sign of a disordered skill.
  4. Identifying specific phonology, morphology and syntactic skills a student may need to be explicitly taught in order to reduce and eliminate additional challenges they may have translating print into speech (reading) or speech into print (writing/spelling).

Phonology	Morphology and Syntax
(Cheng, 1991; Hwa-Froelich, 2007; Hwa-Froelich et al, 2002; Kester, 2014)	(Kester, 2014)
Phoneme Differences: The Vietnamese language does not include the following English phonemes: /v, r, ʃ, dʒ, θ, ð, ʒ, ʊ, æ, ʌ, I and a/ and words are produced mostly as a CV syllable shape. In addition, the /t/ is interdentalized, the only consonants in the final position include /t, p, /k, m, n, or ŋ/ and there are no consonant clusters in Vietnamese. Therefore, the following differences are likely to occur: - Production of /s/ or /t/ for /θ/ - Production of /z/ or /d/ for /ð/ - Production of /b/ or /v/ - Production of /j/ (“y”) for /dʒ/ in initial position - Difference in /r/ production in initial position - Variations in final consonant production - Consonant clusters may include only on consonant	**Possessives:** Possessives are marked by the noun + prepositional phrase (i.e. I took the shoe of her.) **Word order:** Adjectives typically follow the noun. **Plural -s:** Plural –s is marked by number in the sentence (i.e., He have fifty cent. Here two shoe.) In some cases, this may be due to only the limited phonemes that appear in final position of Vietnamese. **Verb Tense:** Context and the addition of words before or after the verb convey the tense (i.e., Boy read. She play. I am walk.) **Question format:** Question words are used with intonation in a subject-verb-object structure (i.e., You want drink?) **Negation:** “No” precedes the verb (i.e., “It no dog me” for “That is not my dog”).

Appendix S Theory of Mind and Gestural Development

Order of Theory of Mind	Age range	Includes the development of…
Precursors to Theory of Mind	Birth to age three	- verbal and nonverbal language (including using words to label, comment, protest, and request as well as gestures related to giving, showing, pointing and waving) - joint attention - early narratives - early cognitive skills (means-end, object permanence, following line of regard, etc.) - initiating - imitation - pretend play - awareness of self - use of emotional vocabulary (i.e. happy, mad, sad) - use of • verbs of perception –"I hear, see, smell, taste, feel ___" • verbs of intention- "I want, need, like, don't like ___" • verbs of cognition – "I know, don't know, remember, think, believe, guess, forget/forgot ___"
First Order	4 through 5 years of age	- when the child uses other pronouns with the above verbs, this relates to a higher order of Theory of Mind and the ability to think about what another person may be thinking. - understanding that people see things differently may have a different perspective including the ability to identify how a character in a book is feeling
Second Order	6 through 8 years	- able to predict what one person is thinking about what someone else is thinking - emergence of more complex emotional labeling such as "jealous, worried, proud, regret/shame/guilt, etc." - use of strategies to regulate emotions - is able to tell lies -understanding that different contexts have different expectations
Higher orders of ToM	8 years of age and above	- able to hide emotions and intentionally uses facial expressions to mislead another person - understands figurative language and sarcasm - thinks about their own thinking and comprehension

Development of Gestures				
Function	**9-12 months**	**12-15 months**	**15-18 months**	**18-24 months**
Behavioral regulation	**Protest** - uses body to refuse or protest (e.g., arching body away when held in adult's arms) - pushes away object **Request objects** - points to obtain an object - reaches for an object - makes contact with an adult's hand to gain object **Request actions** - reaches to be picked up - does an action to get it to happen again (e.g., bounces up and down for "horsie")	**Request objects** - looks at object, then adult, and then object again (or vice versa) **Request actions** - reaches while opening and closing hands (e.g., being picked up) - gives an object to an adult to get help (e.g., have it opened, fixed)	**Protest** - shakes head "no" **Request objects** - reaches while opening and closing hand for object **Request actions** -points to get someone to do something (e.g., open a door, carry them to another room) - takes the hand of an adult to guide their hand or body to do something (e.g., takes hand of adult and brings it toward belly to get tickle	
Social Interaction	**Seek attention** - bangs objects to get attention - uses consistent body movement to get attention (e.g., flapping arms, kicking legs) - grabs an adult's hand to gain attention **Social games** - shows interest and anticipation in social games (e.g., moves body in anticipation, holds up hands for adult to manipulate -participates by imitating an adult (e.g., claps) -initiates social games (e.g., puts blanket overhead to initiate peekaboo) **Representational gestures** - waves "bye" - imitates others clapping	**Representational gesture** - shows functions of objects (e.g., brush hair with brush - hugs objects - claps for excitement/accomplishment (e.g., claps after putting blocks in bucket -"dances" to music (e.g., bounces in seat from side to side with arms bent like dancing)	**Representational gestures** - smacks lips like eating	**Seek attention** -shows off (e.g., sticks out tongue, makes a funny face to get a laugh) **Representational gestures** -shrugs shoulders or puts hands face-up for "All gone" or "Where did it go? -blows kisses -signals "shh" with fingers to lips - nods "yes -pretends to sleep with hands together by head - uses conventional gesture of excitement (e.g., "high five")
Joint attention	**Comment** -gives and shows object	**Comment** -points to object or event	**Comment** - points to object in response to an adult's request, such as "Show me the apple" or "Where's the doggie? **Request Information** - points to object or event to gain information (e.g., points to picture in book for adult to name it)	**Comment** -uses gesture as clarification of word/word approximation (e.g., child says "pane" and then points to airplane when not understood)

Adapted from Crais, Watson & Baranek (2009) Use of Gesture Development in Profiling Children's Prelinguistic Communication Skills. American Journal of Speech-Language Pathology. Vol. 18(95–108).

Appendix T Components of Social Communication & Social Communication Benchmarks

Components of Social Communication	
Social Interaction	• Speech style and context • Cultural influences • Gender communication differences • Language interference (influence of one language on another) • Code switching • Rules for linguistic politeness • Social reasoning • Peer-related social competence • Social tasks (e.g., accessing peer groups, cooperative play) • Conflict resolution • Power relationships (e.g., dominance/deference)
Social Cognition	• Theory of Mind (ToM) the ability to connect emotional states to self and others; understanding that others have knowledge, desires, and emotions that may differ from one's own; ability to take the perspective of another and modify language use • Emotional competence including emotional regulation, emotional understanding, emotional expression (e.g., effectively regulating emotional state and behavior while attending to salient aspects of the environment and engaging in social interaction) • Executive functioning (e.g., organization, planning, attention, problem solving, self-monitoring of future, goal-directed behavior) • Joint attention (e.g., social orienting, establishing shared attention, monitoring emotional states, and considering another's intentions) • Inference and presupposition
Verbal Communication	• Speech acts (e.g., requests, responses, comments, directives, demands, promises, and other communication functions) • Communicative intentions (communicative acts) • Perlocutionary/illocutionary/locutionary acts • Prosody • Grice maxims of conversation (quantity, quality, relevance, manner) • Discourse including style (conversational, narrative, expository, procedural), interaction/transaction, cohesion/coherence, responsiveness/assertiveness, topic maintenance/introduction/responsiveness/shift, social reciprocity (e.g., initiating and responding to bids for interaction, taking turns), communication breakdown and repair, contingency/adjacency, co-construction of meaning, event knowledge, scripts
Nonverbal Communication	• Body language (posture and positioning) • Gesture • Facial expression • Eye contact • Gaze (gaze shifts) • Proxemics • Deictic gestures • Challenging behavior as communication
Language Processing	• Spoken and written language comprehension and expression • Morphology (word forms) and syntax (word order) • Semantics-general/discipline-specific vocabulary (e.g., science, math, social studies) • Phonological skills for spelling and reading decoding

Age	Social Communication Benchmark
Birth to 12 months	Prefers looking at human face and eyes; prefers listening to human voice; looks for source of voice; differentiates between tones of voice (angry, friendly); smiles back at caregiver; follows caregiver's gaze; participates in vocal turn-taking with caregiver; vocalizes to get attention; demonstrates joint attention skills (sharing attention); uses gestures to make requests and direct attention; plays simple interactive games such as peek-a-boo
12 – 18 months	Brings objects to show caregivers; requests by pointing and vocalizing; solicits attention vocally; practices vocal inflection; says "bye" and other ritualized words; protests by shaking head, saying "no"; supplements gestures with verbal language; aware of social value of speech; responds to the speech of others with eye contact; demonstrates sympathy, empathy, and sharing nonverbally
18 – 24 months	Uses single words to express intention; uses single and paired words to command, indicate possession, express problems, and gain attention; uses "I, me, you, my and mine"; participates in verbal turn-taking with limited number of turns; demonstrates simple topic control; interrupts at syntactic junctures or in response to prosodic cues
24 – 36 months	Engages in short dialogues; verbally introduces and changes topic; expresses emotion; begins to use language in imaginative way; relates own experiences; begins to provide descriptive details to enhance listener understanding; uses attention-getting words; clarifies and asks for clarification; introduces and changes topics; uses some politeness terms or markers; begins to demonstrate some adaptation of speech to different listeners
3 – 4 years	Engages in longer dialogues; anticipates next turn at talking; terminates conversation; appropriately role-plays; uses fillers—such as yeah and okay— to acknowledge a partner's message; begins code-switching and uses simpler language when talking to very young children; uses more elliptical responses; requests permission; begins using language for fantasies, jokes, teasing; makes conversational repairs when not understood and corrects others, uses primitive narratives—events follow from central core/use of inferences in stories
4 – 5 years	Uses indirect requests; correctly uses deictic terms (e.g., this, that, here, there); uses twice as many effective utterances as 3-year-olds to discuss emotions and feelings; uses narrative development characterized by unfocused chains—stories have sequence of events but no central character or theme; develops basic understanding of Theory of Mind (ToM); shifts topics rapidly
School-Age Years	Demonstrates increased understanding of ToM (e.g., reads body language, facial expressions, and prosodic characteristics of language to predict behavior; takes perspective of another and modifies language use accordingly); provides assistance and demonstrates altruism; uses narrative development characterized by causally sequenced events using "story grammar"; demonstrates improved conversational skills (e.g., topic maintenance, repair, and increased number of turns); extends topic of conversation; demonstrates refined social conventions; uses language for varied functions including persuading and advancing opinion

Table based on information from Gard, Gilman, & Gorman (1993) and Russell (2007).
Note: Consider cultural and linguistic factors that may influence appropriateness and/or relevance of benchmarks.

Appendix U Timler's Share and Tell Language Sampling Protocol

Adapted from: Hadley, P. (1998). Language sampling protocols for eliciting text level discourse. *Language, Speech, and Hearing Services in Schools*, 29, 132–147. Cite as: Timler, G**.** (2018). Using language sample analysis to assess pragmatic skills in school-age children and adolescents. *Perspectives of the ASHA Special Interest Groups, 3 (*1), 23-35.

General Directions for Collecting Language Samples

1. *Use statements rather than questions to elicit talking*. For example, "I wonder how many brothers or sisters you have." Or "I'd like to hear more about that."
    a. Allow the student to talk as much as he/she would like.
    b. Makes comments about what the student has said. (e.g. Wow, you have two sisters! I wonder how you two get along and/or ("Oh, you have a dog! I bet he does some funny stuff."
2. Use pause time after your comments. **If needed, count to 30 before you provide another comment**.
3. Avoid yes/no questions if the student usually answers with just a yes/no.

Specific Directions for the "Share and Tell" Protocol

1. Collect three sample types within this one 10 to 12-minute sample. Each sample should last between 3 to 4 minutes. The sample begins with a ***personal retell sample about a past event*** that has happened to the student. Next, an ***expository sample*** is collected in which the student tells you the rules for playing a game or describes the steps in a procedure such as a science experiment. Finally, a ***book/movie retell*** sample is collected in which the student tells you about a favorite book or movie.
2. To encourage the student to use longer sentences, you will present an example "share and tell" for each segment using a conversational tone (avoid reading the paragraph). You can use the examples on the following pages or create your own. Be sure to include complex sentences in your model. **Pause after your 'share and tell" to allow the student to make a comment or ask you a question**. It is important to give the student many opportunities to provide a follow-up comment or question to what you have stated.
3. In each segment you will stage a **communication breakdown** so that you can observe if the student notices the breakdown and how (or if) he/she attempts to repair it. The sentence script for staging a breakdown is in the table that follow.

Examiner Script (see next page for Share and Tell prompts)

Segment Starter Each segment should last 3 to 4 minutes	**Communication Breakdown Directions**
Segment 1: Personal Retell: "***I'd like to hear about your family and pets."*** • Remember to use comments rather than questions • Provide a personal retell share after conversation about student response (i.e., description of family/pets) (see examples).	Repeat back *incorrectly* something the student has stated
Segment 2: Expository: "***Now, I'd like you tell me about a favorite sport or game you like. I want to hear how to play it." Tell me about the rules that people must follow. Tell me everything so that someone who has never played it before would know how to play*** (adapted from Nippold, 2014***). I'll share one with you first."*** • Provide your exposition share and tell. Remember to pause when finished to allow student time to comment or ask a question.	Say: *"**I don't understand how ____"*** or ***"I'm confused by ___"*** and look puzzled. Repeat if student does not respond.
Segment 3: Book/Movie Retell: "***Now, I'd like to hear about your favorite book or movie. Tell me everything so that someone who hasn't seen the movie or read the book would know who it is about, what happens to them and how it ends. I'll share one with you first"*** • Provide a narrative/video retell (see next page for an example). Remember to pause when finished to allow student time to comment or ask a question.	Repeat back something *incorrectly* and/or say, ***"I don't understand how _____"*** or *"**I'm confused by ___"*** and look puzzled. Repeat if student does not respond.

Personal Retell Shares

- *Problem with Sibling*: One time when I was younger, I bought a Nintendo Switch with my own money. My brother was playing with it when I wasn't home one day, and he broke it! I was so mad. I had to wait a whole year before I could get a new one. OR One time when I was younger, I bought a stuffed animal with my own money. My brother was playing with it when I wasn't home one day, and he ripped it! I was so mad. I had to wait a whole year before I could get a new one.

- *Problem with a pet:* My dog's name is Pepper. One day, he was playing outside, and he saw a bunny. He jumped over the fence to chase the bunny. Then, I had to jump over the fence to chase after him, but I couldn't catch him. Finally, the bunny went into a hole and Pepper came back to me. I was so frustrated with him.

- *Problem at School*: This year I decided to bring my lunch to school every day instead of eating in the cafeteria. One day, I walked out of my house and to the bus stop without getting my lunch out of the fridge. My mom was working all day, so she couldn't bring my lunch to school for me and I didn't have any lunch money to buy lunch. Luckily, one of my friends was nice enough to share their lunch with me or otherwise I would have been really hungry.

Exposition Shares

- *Game Rules:* I love to play the card game war. The first thing I do when I play war is shuffle all the cards, so they are in a random order. Next, I hand out all the cards, so each player has half of the deck. You keep the cards face down, so you can't see what the cards are. Next, each player plays a card, and the highest card wins. If you win you get to keep both cards. If you play the same card, then you have a war! So, you each put down three cards and then flip over the fourth. Whoever has the highest card wins all the cards. You win the game when you get every single card in your hand.

- *Science Experiment Procedures.* My favorite class in school was science class. I loved to do experiments. One time we did an experiment to see if objects would float or sink in water. If the object floated, then we had to write down what the object was made of. If it didn't float, we had to guess why it didn't float. It was fun, but some people got wet because they were fooling around instead of listening to the teacher. My teacher was annoyed with us!

Book/Movie Retell Share

Movie Recap (include characters, plot and why you liked it): One of my favorite movies is Nemo! I'll tell you about one of my favorite scenes. In Nemo, Dory and Nemo are the two main characters. In one scene Dory starts to talk in whale. He really exaggerates what he is saying and makes no sense. Nemo tries to talk some sense into Dory, but Dory continues even trying different dialects. A whale then comes up behind them and they end up getting swallowed by the whale. It was a funny scene and had me laughing the entire time.

Timler's Share and Tell Rating Scale (STRS)

Adapted from Adams, Gaile, Freed, & Lockton 2010

Name: _____ Grade: _____

Teacher: _____ SLP: _____ Date: _____

Directions:

1. Listen to the student or watch a recording of the student's "Share and Tell" sample until you have completed notes in each of the areas below.

Syntax	**Morphology**	**Semantics/Word Use**
Few or no complex sentences: yes no Little use of subordinating conjunctions (e.g., because, although, while, etc.): yes no	Verb tense errors: yes no Other morphological errors: yes no	Vocabulary concerns: yes no Frequent use of fillers such as "um" or pauses: yes no Frequent use of nonspecific words such as "thing" or "that": yes no
Pragmatics	**Speech Intelligibility**	**Fluency**
Turn-taking concerns: yes no Unclear/confusing utterances*: yes no **May indicate cohesion concerns* Other concerns: yes no	Intelligibility concerns: yes no Speech Sound Errors: yes no	Frequent use of mazes including repetitions and revisions): yes no Dysfluencies/stuttering: yes no

2. If pragmatic concerns are noted, complete the rating scale below while listening to the entire sample, stopping as needed. Note errors, and unexpected or problematic pragmatic behaviors, by checking the box next to the behavior in the right-hand column below. After you have listened to the entire sample, circle a rating in the center columns for any row that has one or more boxes checked.

Scale for Ratings of Pragmatic Language Categories

(To be completed after listening to entire sample)

0 = Appears appropriate for age; only minimal disruptions were noted
1 = mild concerns or concerns, occasionally noted by other communication partners
2 = moderate concerns or concerns, frequently noted by other communication partners
3 = significant/severe concerns or concerns, almost always noted by communication partners **and** behaviors would significantly disrupt/distract interactions with other communication partners

Pragmatic Category	Pragmatic Language Behaviors				
Responding to questions	0	1	2	3	❑ Does not respond to one or more questions ❑ Responds before partner has finished asking the question ❑ Repeats question without responding ❑ Answers the question but gives an unexpected or inappropriate response (e.g., could be due to lack of understanding or not listening/attending to question)
Asking questions ___ *Check here if student did not ask any questions*	0	1	2	3	❑ Asks too many questions ❑ Ask questions without listening to/waiting for the answer ❑ Asks questions when they know the answer/repeats question ❑ Asks unexpected or off-topic question
Turn Taking Balance	0	1	2	3	❑ Interrupts partner ❑ Does not take a turn when expected after the partner pauses (pause time too long) ❑ Pauses too long between their own turns ❑ Dominates the conversation- frequent initiation/lengthy responses
Topic initiation	0	1	2	3	❑ Does not initiate new topics ❑ Initiates too many topics/changes topics too frequently
Topic Management	0	1	2	3	❑ Provides excessive amount of detail ❑ Stays on one topic too long ❑ Returns to the same topic over and over ❑ Provides too few details ❑ Provides irrelevant or tangential details ❑ Provides out-of-sync comment/irrelevant/off topic comments
Pronoun Use/Referents	0	1	2	3	❑ Confuses gender pronouns (e.g., uses "he" for "she") ❑ Referents unclear; introduces new person without background ❑ Uses multiple "he" or "she" pronouns without clearly identifying which "he" or "she" is being talked about
Language use (overly formal or stereotypic or unusual)	0	1	2	3	❑ Uses language that is overly familiar for context ❑ Uses language that is overly formal for context ❑ Uses unexpected, stereotyped words and phrases (these may be from TV shows, movies, phrases used by adults) ❑ Uses same word/phrase to express several communication functions
Unrepaired Communication breakdowns	0	1	2	3	❑ Does not respond when partner is confused or asks for clarification ❑ Responded to request for clarification, but response was unclear or off topic ❑ Does not ask for clarification when confused
Proximity	0	1	2	3	❑ Stands or leans in unusually close to partner ❑ Stands (moves chair) unusually far from partner
Non-verbal behaviors	0	1	2	3	Nonverbal behaviors do not fit the social communicative context in one or more of the following: ___ prosody ___gesture ___facial expression ___eye contact

Additional Comments:

Appendix V Sample Information about Speech Intervention and Sample Permission

COASST

What is COASST?

COASST stands for Collaboration, Observation, Assistance, Student Support, and Training. COASST is a multi-faceted program within the South Carolina multi-tiered system of supports (SC MTSS) framework which allows the Speech-Language Pathologist (SLP) to support speech-language development as part of Coordinated Early Intervention Services (CEIS) under the Individuals with Disabilities Education Act (IDEA) by

- Responding to concerns via observation(s) of student(s)
- Providing presentations to staff about speech-language development
- Delivering training to families
- Modeling whole classroom lessons and demonstrations
- Assisting school teams with scientifically based literacy interventions/progress monitoring
- Collaborating with classroom teachers to provide strategies to support literacy-based skills such as phonological awareness, vocabulary, morphology, and comprehension.
- Conferring with teachers to meet the needs of students with a specific focus on the relevant language underpinnings of language and literacy
- Making practice programs available
- Periodic monitoring of student progress with indirect interventions
- Intervening directly with a student for short periods of time (typically 6-8 weeks) through a general education initiative without an Individualized Education Program (IEP) when a disability is not suspected and/or the difficulty is not adversely impacting educational performance.

In order to receive direct intervention, parent permission must be obtained, intervention must be for a specifically defined area of need based on data, and periodic review meetings must be scheduled to review the data. These reviews must include a discussion of the data collected noting the student's response to the intervention. At that time, the team may recommend that the student

- Continue in COASST because the student is making good progress
- Discontinue COASST because the student has mastered the speech-language skill(s)
- Refer the student for special education because the student's difficulties are impacting educational performance and participation in COASST has revealed the need for specially designed instruction.
- Provide information on other options as the student's difficulties are not impacting academic performance, but participation in COASST has revealed the need for support which may be provided through other program options outside of school at the discretion of the parent/caregiver.

COASST

Date: _____

Parent/Caregiver of _____,

Our school utilizes a multi-tiered system of support for speech-language development called COASST which is designed to provide collaboration, observation, assistance, student support, and training for students who are not suspected of having a disability but may need additional support with their development. Your child has demonstrated that they may need some additional support in the area of _____. Therefore, with your permission, speech-language pathology staff will be working with them for _____ weeks and collecting data to document their response to this support. This will occur from ____ to _____ on _____. In addition, speech-language pathology staff will share ideas with teachers for how to support your child in using these new skills in the classroom and may also provide you with ideas to use at home. A collaborative approach across all environments can make a big difference! After a few weeks of support we will review the data and determine next steps.

Please select the appropriate box, sign below and return this form to _____.

If you have questions, please contact me at _____.

Sincerely, _____

Speech-Language Pathologist

✂ Cut here and return the bottom portion to school _____

_____ Yes, I give consent for my child to participate in the COASST Program.

_____ No, I do not want my child to participate in the COASST Program.

Parent/Caregiver signature: _____Date: _____

Appendix W Sample Dynamic Assessment Documentation

Student: _____ Grade: _____

Teacher: _____ SLP: _____

I. Test: Pretest - Dynamic assessment requires the clinician to first assess the student's current performance.
II. Teach: Then, incorporate mediated learning by facilitating the student with strategy use, while observing their modifiability, or ability to incorporate the newly learned strategy.
III. Test: Post-test - Finally, compare the student's performance to the pretest phase and evaluate their modifiability.

*If the student can complete the task with the newly learned strategy, they are highly stimulable and not likely to demonstrate the presence of a language disorder. If the student required a high amount of examiner effort, was less responsive to input, and did not readily transfer their learning to the task, this may be indicative of a language disorder.

Skills Targeted for Dynamic Assessment (can select one to four skills at a time)	
1.	2.
3.	4.

Required Steps:

1. Intentionality: What is the goal? "Today we are working on _____".
2. Meaning: Why are we doing this? "When someone _____, it's important to _____."
3. Transcendence: What if we don't have this skill? "What if your teacher tells you to ___, but you __. Then ___."
4. Application: Let's try it together! "This time when I ____, I want you to ____. I'll go first, then you do it."
5. Competence: What did you learn and why is it important? When will you use it? "Remember, it's important to ____. Now you tell me why it's important. Think about when you might need to ___."

Document Level of Support Needed	
Minimum Support	o Repetition o Rephrasing o Slowed Rate o 1-2 Presentations
Moderate Support	o Modeling correct response o Providing a demonstration o Multi-sensory input o 3 Prompts or more
Maximum Support	o Direct imitation (verbal) o Physically prompted o Reduced content o Perform task for student

Dynamic Assessment Documentation

	Date:	Skill(s)#	Step(s)	Notes/Response	Amount of Support
1			___ Intentionality ___ Meaning ___ Transcendence ___Application ___Competence		___ Min ___ Mod ___ Max
2			___ Intentionality ___ Meaning ___ Transcendence ___Application ___Competence		___ Min ___ Mod ___ Max
3			___ Intentionality ___ Meaning ___ Transcendence ___Application ___Competence		___ Min ___ Mod ___ Max

Date of Posttest: _____
Posttest Notes and comparison to pretest:

SLP: _____

Appendix X Functional Communication Assessment Summary

Functional Communication Assessment Summary

Functional communication skills are forms of behavior that express needs, wants, feelings, and preferences that others can understand. When individuals learn functional communication skills, they are able to express themselves without resorting to problem behavior or experiencing communication breakdown. Functional communication includes spoken and written communication, as well as gestures and pointing, and other forms of communication.

This Functional Communication Assessment Summary may be used to document functional communication skills of any student in the education setting and may be helpful when examining the educational impact of a suspected communication impairment.

Functional Communication Categories include:

- **Communicative Interaction** Evidenced by: initiation, topic maintenance turn taking, opening/closing conversations

- **Communicative Intention** Evidenced by: requesting objects/actions, commenting on objects/actions, etc.

- **Communicative Methods** Evidenced by: use of one or more modes of communication (e.g., verbal, manual sign, AT or AAC system, gestures, pointing)

- **Comprehension of Language** Evidenced by: appropriate actions or communicative responses indicating comprehension of what others say, sign, or show

- **Effect on Educational Performance** Student demonstrates communication skills adequate for participation in current educational setting

Data collected from known and novel communication partners in a variety of settings should be used when examining functional communication. Data should reflect interactions with persons other than SLP.

Functional Communication Assessment Summary

Name: _____ Date: _____

This form may be used to document functional communication skills in the education setting and may be helpful when evaluating students when a valid comparison to a normative sample cannot be made or a student has significant impairments. Data collected from a variety of communication partners in a variety of settings should be used to complete this form.

Communicative Interaction Evidenced by: initiation, topic maintenance turn taking, opening/closing conversations	☐ Successful	☐ Usually Successful	☐ Frequently Unsuccessful	☐ Not Successful
	Data sources: Describe performance:			
Communicative Intention Evidenced by: requesting objects/actions, commenting on objects/actions, etc.	☐ Successful	☐ Usually Successful	☐ Frequently Unsuccessful	☐ Not Successful
	Data sources: Describe performance:			
Communicative Methods Evidenced by use of one or more modes of communication (e.g., verbal, manual sign, AT or AAC system, gestures, pointing)	☐ Successful	☐ Usually Successful	☐ Frequently Unsuccessful	☐ Not Successful
	Data sources: Describe performance:			
Comprehension of Language Evidenced by appropriate actions or communicative responses indicating comprehension of what others say, sign, or show	☐ Successful	☐ Usually Successful	☐ Frequently Unsuccessful	☐ Not Successful
	Data sources: Describe performance:			
Effect on Educational Performance Student demonstrates communication skills adequate for participation in current educational setting	☐ Successful	☐ Usually Successful	☐ Frequently Unsuccessful	☐ Not Successful
	Data sources: Describe performance:			

Appendix Y Pediatric Voice Index

Pediatric Voice Index (PVI) for Parent/Caregiver

Adapted from Pediatric Voice Handicapp Index (pVHI): A new tool for evaluating pediatric dysphonia. Karen B.Zur, Stephanie Cotton, Lisa Kelcher, Susan Baker, Barbara Weinrich, Lina Lee. Internvetional Journal of Pediatric Otorhinolaryngology. Volume 71, Issue 1, January 2007.

Name: _____ Date: _____

Person Completing the Form: _____

Relationship to Student: ___ Parent ___ Caregiver ___ Teacher ___ Other: _____

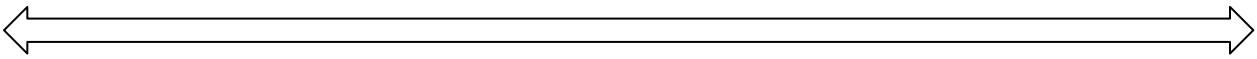
___ Yes ___ No Does the student have allergies, frequent upper respiratory infections, chronic cough, chronic throat clearing, etc.

___ Yes ___ No Does the student yell frequently throughout the day?

___ Yes ___ No Has the student received ever received a medical examination from an Otolaryngologist (i.e., ear, nose, and throat physician)?

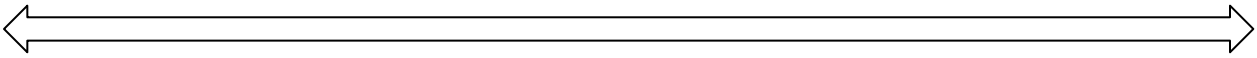
Please put an "x" where you feel that the student falls on the two arrows below.

Amount of talkativeness:



Quiet Listener Average Talker Extremely Talkative

Severity of their voice difficulties:



Normal Severe

Instructions: These are statements that many people have used to describe their voices and the effects of their voices on their lives. Please circle the response that indicates how frequently the student experiences the same symptoms.

0 = Never 1 = Almost Never 2 = Sometimes 3 = Almost Always 4 = Always

The child's voice makes it difficult for people to hear them.	0	1	2	3	4
People have difficulty understanding them in a noisy environment.	0	1	2	3	4
It is difficult to hear them when they call out or yell.	0	1	2	3	4
They speak less often to friends, teachers, others because of their voice.	0	1	2	3	4
When speaking face-to-face, it is necessary to ask them to repeat themselves.	0	1	2	3	4
Voice difficulties restrict personal, educational and social activities.	0	1	2	3	4
They appear to "run out of air" when speaking.	0	1	2	3	4
The sound of their voice changes throughout the day.	0	1	2	3	4
Others have asked "What's wrong with their voice?"	0	1	2	3	4

The voice sounds dry, raspy, and/or hoarse	0	1	2	3	4
The quality of their voice is unpredictable.	0	1	2	3	4
They appear to speak with great strain or effort.	0	1	2	3	4
Their voice gets worse at the end of the day/evening.	0	1	2	3	4
Their voice appears to “give out” when speaking.	0	1	2	3	4
They have to yell in order to be heard.	0	1	2	3	4
They seem tense when talking because of their voice.	0	1	2	3	4
People seem to get irritated with the sound of the child’s voice.	0	1	2	3	4
The child is frustrated with their voice.	0	1	2	3	4
The child is les outgoing because of their voice.	0	1	2	3	4
They are *annoyed* when asked them to repeat themselves.	0	1	2	3	4
They are *embarrassed* when asked to repeat themselves.	0	1	2	3	4
Total for each column:					
Total Score:					

Please use this space to add any additional information:

Pediatric Voice Index for Teachers

Adapted from Pediatric Voice Handicapp Index (pVHI): A new tool for evaluating pediatric dysphonia. Karen B.Zur, Stephanie Cotton, Lisa Kelcher, Susan Baker, Barbara Weinrich, Lina Lee. Internvetional Journal of Pediatric Otorhinolaryngology. Volume 71, Issue 1, January 2007.

Name: _____ Date: _____

Person Completing the Form: _____

Relationship to Student: ___ Teacher ___ Other: _____

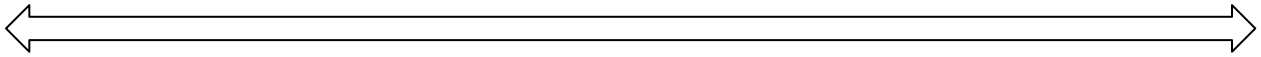
___ Yes ___ No Do you observe the student having allergies, frequent upper respiratory infections, chronic cough, chronic throat clearing, etc.

___ Yes ___ No Does the student yell frequently throughout the day?

NOTE: Please do not consider the child's shyness/timidity, their emotional/temperament properties or speech/language disorders that he/she might have and take ONLY the child's voice into consideration, when you score.

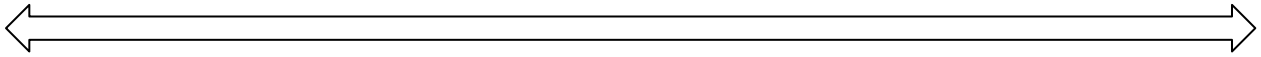
I. Please put an "x" where you feel that the student falls in the two questions below.

Amount of talkativeness:



Quiet Listener Average Talker Extremely Talkative

Severity of their voice difficulties:



Normal Severe

II. **Instructions:** These are statements that many people have used to describe their voices and the effects of their voices on their lives. Please circle the response that indicates how frequently the student experiences the same symptoms.

0 = Never 1 = Rarely 2 = Often 3 = Always

The student avoids raising hand to join class because of their voice	0	1	2	3
The student avoids speaking with their friends because of their voice.	0	1	2	3
The student avoids speaking with teachers because of their voice.	0	1	2	3
The student has difficulty of getting their voice heard in the outdoor environments such as a school playground.	0	1	2	3
The student has difficulty of getting their voice heard in group work or group activities.	0	1	2	3
The student avoids participating in social or musical activities (singing during music, doing a presentation, etc.) for which they need to use their voice.	0	1	2	3
More than one teacher in the school has had difficulty of understanding the student's speech in a noisy environment (school hallways cafeteria, gym, etc.).	0	1	2	3
More than one teacher in the school has had to ask them to repeat themselves when speaking face to face.	0	1	2	3
The student's friends ask him/ her to repeat him/herself when speaking face to face.	0	1	2	3

The student's voice sounds hoarse.	0	1	2	3
The student's voice is different from other students who are of the same age and have the same sex.	0	1	2	3
The student's voice becomes raspier and inaudible with shouting.	0	1	2	3
The student's voice worsens after some leadership activities (i.e. being a class president, a team captain etc.)	0	1	2	3
The student's voice gets hoarse after singing.	0	1	2	3
The student loses their voice suddenly when they speak in a noisy environment.	0	1	2	3
The student's voice gets hoarse after playing in a noisy environment.	0	1	2	3
The sound of the student's voice changes when they give a presentation or speaks in a noisy environment.	0	1	2	3
The student has a fear of not being heard when the teacher grants permission to talk.	0	1	2	3
The student gets upset when they cannot participate in social activities at the school because of their voice.	0	1	2	3
The student has expressed concern about doing some leadership activities (being a class president, a team captain, etc.) because of their voice.	0	1	2	3
The student gets concerned when their voice worsens.	0	1	2	3
When you (the teacher) asks them to repeat what they said, the student gets upset or frustrated.	0	1	2	3
The student gets *angry* when their friends do not understand them because of their voice.	0	1	2	3
The student gets *sad or upset* when their friends do not understand him/her because of their voice.	0	1	2	3
Add up the total for each column:				
Total Score:				

Please use this space to add any additional information:

Appendix Z Sample Ling 10 Data Sheet

Student: ____ Grade: ___________

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				

Date: Evaluator:				
	Right	Left	Binaural	Remote Mic
/a/				
/u/				
/i/				
/ʃ/				
/s/				
/m/				
/n/				
/h/				
/z/				
/ʤ/				