

**SPEECH IMPAIRMENT WITH A
LANGUAGE DISORDER
ELIGIBILITY GUIDELINES**



**TEXAS SPEECH-LANGUAGE-HEARING
ASSOCIATION**

2011

This manual is to be used as an extension of, or to augment, the TSHA *Eligibility Guidelines for Speech Impairment 2009*. It is not intended to be used as a stand-alone guide.

SI - LANGUAGE ELIGIBILITY GUIDELINES

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I. General Information

PURPOSE AND INTENDEND USE OF THE SI - LANGUAGE ELIGIBILITY GUIDELINES

The purpose of the SI - Language Eligibility Guidelines is to provide a structure within which the speech-language pathologist (SLP) can use consistent, evidence-based evaluation practices in accordance with law to:

- Provide information to teachers and parents regarding the nature of language and language disorders and, when indicated, provide classroom intervention recommendations based on data collected by the Student Support Team (SST).
- Complete a comprehensive evaluation of a student's language abilities following a referral with language concerns for a Full and Individual Evaluation (FIE) for special education.
- Identify whether a language disorder is present.
- Determine if the presence of a language disorder results in a disruption in academic achievement and/or functional performance, and document the need for specially designed instruction or supplementary aids and services by the SLP.
- Make recommendations to the Admission, Review, Dismissal (ARD) Committee regarding eligibility for special education services and support based on speech impairment (SI).

These guidelines are intended to be used in combination with the information provided in the *TSHA Eligibility Guidelines for Speech Impairment 2009*, with the understanding that use of the tools in this language guidelines manual require additional, specialized training. SLPs should become very familiar with the information in that manual and be aware that information from both manuals is essential to completing a comprehensive evaluation of language.

Please see the *TSHA Eligibility Guidelines for Speech Impairment 2009* for additional information (available online at www.txsha.org).

DEFINITIONS

Language

The American Speech-Language-Hearing Association (ASHA) has defined language as a dynamic system that involves the ability to integrate knowledge of phonology, morphology, syntax, semantics, and pragmatics to create sentences within conversational, narrative, and expository discourse contexts (ASHA, 1983).

Language Disorder

The American Speech-Language-Hearing Association (ASHA) has defined language disorder as impairment in “comprehension and/or use of a spoken, written, and/or other symbol system. The disorder may involve (1) the form of language (phonologic, morphologic, and syntactic systems), (2) the content of language (semantic system), and/or (3) the function of language in communication (pragmatic system), in any combination” (ASHA, 1994, p. 40).

A language disorder is evident when there is a significant deficit in the child’s level of development of the form, content, or use of language (Fey, 1986); or put another way, when there is a significant deficit in learning to talk, understand, or use any aspect of language appropriately, relative to both environmental and norm-referenced expectations for children of similar developmental level (Paul, 2007).

American Speech-Language-Hearing Association (1983). *Committee on Language: Technical Report*. Rockville, MD: Author.

American Speech-Language-Hearing Association. (1994). *Admission/discharge criteria in speech-language pathology: Technical report*. Rockville, MD: Author.

Fey, M. (1986). *Language intervention with young children*. San Diego, CA: College Hill Press.

Paul, R. (2007). *Language disorders from infancy through adolescence*. St. Louis, MO: Mosby, Inc.

Texas Speech Language Hearing Association Language Guidelines, 2011

LANGUAGE MODEL

This Language Model is provided to assist the SLP in planning and providing a comprehensive language evaluation. In completing the language evaluation, the SLP should address the three aspects of language: form, content and use. All areas which are determined to be of concern should be assessed in depth at the developmental level appropriate for the child.

METALINGUISTICS - refers to the use of language knowledge to make decisions about and to discuss the process of language.

- 1) Corrects, revises in response to self monitoring or feedback:
- 2) Demonstrates awareness of pronunciation and rhyming
- 3) Demonstrates awareness of alternation rules with varying surface structure
- 4) Demonstrates awareness of morphology
- 5) Demonstrates awareness of morpheme boundaries
- 6) Understands concept of word, sentence
- 7) Makes acceptability judgments
- 8) Segments language into component parts
- 9) Shows awareness and acceptance of the arbitrary nature of language
- 10) Makes grammaticality judgments
- 11) Defines words
- 12) Makes synonymy judgments
- 13) Resolves morpheme boundary ambiguity

PHONOLOGY - refers to the sound system of a language and the rules governing these sounds

- 1) Phonemic inventory
- 2) Allowable sequences
- 3) Phonological processes

PRAGMATICS - refers to the social use of language, including the goals or functions of language, the use of context to determine what form to use to achieve these goals, and the rules for carrying out cooperative conversations (Paul, 2007):

- 1) Communicative Intent
 - a) Behavior Regulation
 - i) Requests object or action
 - ii) Protests
 - b) Social Interaction
 - i) Shows off
 - ii) Responds to and initiates greeting
 - iii) Calls
 - iv) Acknowledges
 - v) Requests permission
 - c) Joint Attention
 - i) Orients to people
 - ii) Responds to voice
 - iii) Shifts gaze
 - iv) Understands what others are indicating-gaze and gestures

- v) Understands and considers another's intentions and knowledge
 - vi) Comments to share
 - vii) Requests information
 - viii) Clarifies
- d) Form of Communication
- i) Gesture
 - ii) Vocal
 - iii) Listening/Speaking
 - iv) Communication Aids (objects, pictures, symbols)
 - v) Reading/Writing
- 2) Conversation
- a) Social Interaction
- i) Recognizes and describes emotional state of self and others
 - ii) Requests social interaction
 - iii) Seeks comfort
 - iv) Shares positive affect
 - v) Demonstrates contingency response
 - vi) Negotiates and collaborates with others
- b) Discourse Structure
- i) Initiates bid for interaction
 - ii) Responds to bids of others
- c) Initiates topic by providing essential background information
- d) Engages in turn taking
- e) Overlap
- f) Takes the floor
- g) Completion points
- h) Demonstrates social register components
- i) Quantity (talks too much or too little)
 - ii) Quality (adjusts to listener and/or context)
 - iii) Relevancy (does the listener care?)
 - iv) Manner (formal/informal style)
- i) Maintains topic
- j) Demonstrates assertiveness or persistence in communication
- k) Repairs
- 3) Narrative
- a) Types of Narratives
- i) Personal
 - (1) Types
 - (a) Accounts
 - (b) Recounts
 - (2) Personal Narrative Grammar Components
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 - (d) Summary
 - (e) Orientation
 - (f) Complicating Action
 - (g) Evaluation
 - (h) Resolution
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 - (b) Leapfrog
 - (c) End of highpoint
 - (d) Classic

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 - (c) Reaction Sequence
 - (d) Abbreviated Episode
 - (e) Complete Episode
 - (f) Complex Episode
 - (g) Embedded Episode
 - (4) Fictional Story Grammar
 - (a) Setting
 - (b) Initiating event
 - (c) Attempts
 - (d) Direct consequences
 - (i) Natural Occurrences
 - (ii) Action
 - (iii) End state
 - (e) Reaction
 - (i) Internal state
 - 1. Affective response
 - 2. Goal
 - 3. Cognition
 - (ii) Internal plan
 - 1. Cognition
 - 2. Subgoals
 - (iii) Behavior
 - (f) Resolution/Reaction
 - (g) Ending
- iii) School Narratives (Expository)
 - (1) Text Structures
 - (a) Descriptive
 - (b) How to
 - (c) Cause and Effect
 - (d) Problem Solving
 - (e) Compare and Contrast
 - (f) Persuasive
 - (g) Etc
 - (2) Signal Devices
 - (3) Cohesion
 - (a) Types of Cohesion
 - (i) Referencing
 - 1. Pronominal
 - 2. Definite Article
 - 3. Demonstrative
 - 4. Comparative (But not as cold as the other day.)
 - (ii) Conjunction
 - 1. Additive (And my mom got angry)
 - 2. Adversative (only if it can be done well)

3. Causal (as a result we missed our connection)
4. Temporal (then we went dancing)
5. Continuative (well, at least I came)
- (iii) Lexical
 1. Repetition
 2. Synonym
 3. Categorical
 4. Antonym
- (iv) Ellipsis
 1. Nominal (this is my car. Where is his)
 2. Clausal (Do you need some Money No.)
 3. Verbal (Is Barbara going to work She should.)
- (v) Substitution
 1. Nominal
 2. Clausal
 3. Verbal
- (b) Reference
 - (i) Endophoric (relates one part of text to another)
 - (ii) Anaphoric (presupposed element is in preceding text)
 - (iii) Cataphoric (presupposed text is in succeeding text)
 - (iv) Exophoric (relates text to situation context and the identification cannot be made without knowledge of the context)
- (c) Cohesion Adequacy
 - (i) Complete
 - (ii) Incomplete
 - (iii) Errors

- 4) Rituals
- 5) Social Register
- 6) Presuppositions
 - a) Logical
 - b) Pragmatic

SEMANTICS - refers to both the meaning of words and how words relate to each other in meanings:

- 1) Referential Semantics
 - a) Lexical
 - b) Contextual
 - i) Deixis
 - ii) Personal
 - iii) Time
 - iv) Location
 - v) Multiple words
 - c) Conceptual
 - i) Adjectives
 - ii) Adverbs
- 2) Relational Semantics
 - a) Analogies
 - b) Antonyms
 - c) Associations
 - d) Categories
 - e) Part-Whole
 - f) Synonyms
 - g) Roles and Relations

- 3) Non-Literal Semantics
 - a) Idioms
 - b) Humor
 - c) Metaphors and Similes
 - d) Proverbs

SYNTAX - refers to the way in which elements of the language are sequenced together:

- 1) Morphemes
 - a) Free
 - i) Form
 - (1) Noun
 - (2) Pronouns
 - (3) Verb
 - (4) Adjective
 - (5) Adverb
 - ii) Structure
 - (1) Prepositions
 - (2) Conjunctions
 - (3) Coordinating
 - (4) Subordinating
 - (5) Interjections
 - b) Bound
 - i) Derivational
 - ii) Inflectional
- 2) Phrases
 - a) Noun Phrases
 - b) Verb Phrases
 - c) Prepositional Phrases
 - d) Adverbial Phrases
- 3) Clauses
 - a) Transitive Clauses
 - b) Intransitive Clauses
 - c) Equative Clauses
- 4) Transformations
 - a) Rearrangement of the Clause
 - i) Yes/No Questions
 - ii) Wh-Questions
 - iii) Imperative
 - b) Word order transformations
 - i) Verb phrase movement
 - ii) Adverb
 - iii) Adjectival
 - iv) Passive
 - v) Negative
 - c) Clausal Imbedding
 - i) Adverbial (Subordination)
 - ii) Coordination
 - iii) Direct Quote
 - iv) Indirect Discourse
 - v) Infinitival
 - vi) Gerund
 - vii) Noun Phrase Complement
 - viii) Relative

Components of a Comprehensive Language Evaluation

There are several methods for evaluating language form, content, and use: standardized tests, informal assessment, developmental scales, interviews and questionnaires, nonstandardized or criterion-referenced procedures, and behavioral observations including curriculum-based and dynamic assessments. Each of these methods has a place in the language evaluation process and provides important pieces of information; however, **none of these methods can be used in isolation as the sole criteria for making eligibility recommendations for speech impairment with a language disorder.**

Comprehensiveness of Battery

In planning the language assessment it is important that all areas of language are addressed and that those areas of concern are assessed in depth. “Addressing” an area of language suggests that general information indicates that there are no concerns about this particular aspect of the student’s language system. “Assessing” an area of language means that data is collected and analyzed. Use the Language Model (pages 6-10) for planning a comprehensive language evaluation. Data from the referral as well as curriculum standards for the child should be considered in deciding which areas need to be assessed.

Standardized Tests

Standardized tests are also called norm-referenced tests and allow for a meaningful comparison of performance among children of the normative sample. They are developed by designing a series of test items that are given to large groups of children with normal language development and then computing the acceptable range of variation in scores at each age. Standardized tests are the most formal, decontextualized format for assessing language function and should have the following properties:

- Clear administration and scoring criteria
- Validity
- Reliability
- Diagnostic accuracy
- Standardization
- Measures of central tendency and variability
- Standard error of measurement (SEM)
- Norm-referenced scores (standard comparisons, percentile ranks, equivalent scores)

Standardized testing is a valid, reliable, and fair way to establish that a child is significantly different from other children represented in the normative sample. It is strongly recommended that a standardized assessment tool be utilized as part of the comprehensive evaluation if appropriate and available. It is also important to remember that you must have more than one type of

assessment procedure to make a recommendation of eligibility for IEP services. All standardized testing is one type of assessment procedure that assists in determining if the student demonstrates a language disorder.

Informal Assessments

Informal assessment refers to the collection of data through the use of procedures that do not have measures of central tendency and measures of dispersion. In order to utilize informal measures as part of a comprehensive evaluation, a standardized protocol should be followed to include description of the procedures for collecting the data, how to analyze the data, and information to allow for interpretation of the data. The two major types are language samples and probes. Standardized language sampling procedures should be followed and may be either narrative or conversation. Normative data is provided for some informal measures described in this manual.

Interviews and Questionnaires

Parents, teachers, and other adults who know the student well can provide important information to supplement the direct assessment. Federal regulations require both parent and teacher information in the evaluation process. A Teacher Language Survey and a Parent Language Survey are included in this manual. There are a variety of instruments designed to collect information from adults who know the student well and who can provide information about the student's language function.

Developmental Scales

Developmental scales are instruments that use interviews or observations to sample behaviors from a particular developmental period. Developmental scales usually provide guidelines for administration as well as some type of equivalent score and in these ways are considered formal procedures. They yield equivalent score information which may be used as a tool to support or negate the existence of a language deficit. In addition to administration of standardized tests, developmental scales are also useful for documenting adverse effect on educational performance, establishing targets for intervention, and intralinguistic profiling to document relative strengths and weaknesses.

Criterion-Referenced Procedures

Criterion-referenced procedures compare the student's performance to a specific standard or pre-determined criterion rather than comparing performance to other children as in standardized testing. Criterion-referenced procedures are designed to find out precisely what a student can and cannot do with language. In public school SLP services, the criterion for measurement is often found in grade level standards for reading, language arts, and listening and speaking. Once there is documentation from standardized tests of a language disorder, criterion-referenced procedures can be used support or negate the existence of the disorder and to document adverse effect on educational performance, establish baseline function, and identify targets of intervention.

Criterion-referenced procedures can be informal and naturalistic because they do not have to be administered following a standardized protocol. Criterion-referenced procedures can also be formal and clinician-directed. Follow these guidelines for developing criterion-referenced procedures:

- Comprehension – examine contextualized comprehension performance and compare the response to the same structure in both contextualized and non-contextualized conditions.
- Production – in order to get a representative sample of the student’s language abilities, use the following three approaches in combination: elicited imitation, elicited production, structural analysis.

Behavioral Observations

The purpose of behavioral observations is to describe a student’s language abilities relative to performance in the classroom and in the school environment. Behavioral observation can be used to sample a particular behavior, note the frequency of the behavior, and the context or antecedents that are likely to be associated with the behavior. Many checklists and rating forms are used to capture a description of the child’s language behavior. It is important to clearly identify the language behaviors that are of interest in the observation. Behavioral observations are used for capturing information for language and communication behavior that is difficult to assess through any of the other methods. For example, counting the number of appropriate and inappropriate responses during an activity is well suited for behavioral observation. Dynamic assessment, functional assessment, and curriculum-based assessment are forms of behavioral observation. These can also be used to support or negate the existence of a language disorder.

Language Eligibility Guidelines

A comprehensive evaluation of a child's language system includes a systematic analysis of the following areas:

- Communication
 - Nonverbal
 - Verbal Pragmatics
 - Metalinguistics
- Expressive Language
 - Syntax
 - Morphology
 - Semantics
- Receptive Language
 - Syntax
 - Morphology
 - Semantics
- Phonology

A Language Evaluation Plan is developed using referral and intervention data about the student. The Teacher Language Survey and Parent Language Survey can also be used to help identify specific areas of concern which will help determine what assessment tools are needed. Some SLPs choose to conduct a 10-minute interview with the student to explain the process, complete the Language Evaluation Plan, and determine which standardized tests may yield the most sensitive results for the student

Documenting a Language Disorder Using Standardized Testing and Developmental Scales

Standardized Testing

To decide whether there is a meaningful discrepancy between the student's score and the scores of typically developing peers, the student's test score/s are compared to the range of scores from the normative group. Once a statistically significant discrepancy has been established, other forms of language assessment may be necessary to determine whether a language disorder exists and/or if there is an adverse effect on educational performance that results from the language disorder. Both a language disorder and adverse effect on educational performance must be documented in order to meet eligibility guidelines as Speech Impaired in the public school setting.

A global or core standard score below 77 (>1.5 standard deviations below the mean) on a comprehensive language test or two similar language tests is indicative of a language disorder. If this concurs with teacher, parent, and SLP information, then the SLP proceeds with administration

of other methods of assessment to document whether there is an adverse effect on educational performance resulting from the language disorder. If not, then further assessment should be conducted.

A global or core standard score below 80 (>1.25 standard deviations below the mean) on a comprehensive language test or two similar language tests is a red flag for a language disorder and additional testing in the deficit area(s) should be completed. If additional standardized testing is also below a standard score of 80, this would support the presence of a language disorder. If the results concur with teacher, parent, and SLP information, then the SLP proceeds with administration of other methods of assessment to document whether there is an adverse effect on educational performance resulting from the language disorder.

It is noteworthy to add that confidence intervals should always be reported so that standard scores are not misinterpreted as a “cut off” score or an absolute value of the child’s performance. A confidence interval is defined as:

A range of values within which we are fairly confident the true population value lies. For example, a 95% CI means that we can be 95% confident that the population value lies within those limits. (Harris & Taylor, 2009, p. 96)

Developmental Scales

For preschool age children, it is often difficult to utilize standardized tests as part of the comprehensive evaluation. If standardized tests are not available, the use of developmental scales can be utilized as part of the determination of a disorder. In this case, developmental equivalents are used to determine if there is a significant discrepancy between chronological age and developmental age. If there is a significant discrepancy, then supplemental information would be necessary to determine a language disorder such as informal assessment, parent information or rating scales, and teacher information. However, using developmental scales for school-age children to establish a disorder is not recommended.

Documenting Adverse Effect on Educational Performance

Use results from the following procedures to document whether there is an adverse effect on educational performance resulting from the language disorder

- Teacher Language Survey*
- Parent Language Survey*
- Interviews and Questionnaires
- Developmental Scales
- Criterion-referenced Procedures

- Behavioral Observations
 - Dynamic Assessment
 - Functional Assessment
 - Curriculum-based Assessment

Adverse effect on educational performance resulting from a language disorder can be documented in either of the areas of academic achievement or functional performance.

Determination of Eligibility

Upon completion of the Full and Individual Evaluation (FIE), the Admission, Review and Dismissal (ARD) committee must determine whether the child has a disability and by reason of the disability, if the child needs special education and related services. Ultimately, the decision of eligibility relies upon the ARD committee.

*Required

II. Informational Materials Regarding Language

Language Information Provided to Teachers and Parents

What is a Language Disorder?

A language disorder is present when a student has difficulty with the ability to understand spoken language and/or difficulty with the ability to verbally communicate thoughts. Language disorders are typically divided into the following categories:

Syntax: the sequenced arrangement of words and morphemes (single, meaningful units) in the sentences of a language. Examples:

- Use subject/verb agreement and correct verb tenses
- Use question forms correctly
- Put words in the correct order when speaking
- Include small words such as “the”, “an”, “is”, “are”, “am”
- Use compound sentences
- Use verb tenses correctly
- Use regular and irregular plural nouns correctly

Semantics: the meaning of language. Examples:

- Group words into categories
- Understand antonyms and synonyms
- Understand and use place words (prepositions)
- Compare and contrast objects and ideas
- Solve analogies
- Describe pictures and events sequentially and with detail
- Understand concepts such as “more”, “less than”, “same”, “different”

Pragmatics: the system that combines the above language components in functional and social contexts. Examples:

- Communicate with intent
- Initiate participation in classroom discussion
- Stay on subject when talking
- Vary style of speech patterns and language for listener
- Respond to directions and questions
- Request help
- Maintain personal space boundaries
- Answer questions in social situations

Metalinguistics: the use of language knowledge to make decisions about and to discuss the process of language. Examples:

- Provide definitions of words
- Detect errors in grammar
- Judge sentences as appropriate for a specific listener or setting
- Correct word order and wording in sentences
- Identify specific linguistic units (sounds, syllables, words, sentences)

Red flags for recognizing a language disorder: Significant concerns about any of the skills listed above may be considered a “Red Flag” for a possible language disorder. Specific concerns should be documented and provided to the campus Student Support Team for discussion.

How does language impact classroom performance? The ability to read and write is strongly influenced by the ability to understand and use language. Students who are good listeners and speakers tend to become strong readers and writers. Language is basic to all subjects. Any language disorder affects the student’s ability to master the Texas Essential Knowledge and Skills (TEKS) that relate to listening and speaking.

Catts (1993) showed that a group of children with speech-language impairments identified in kindergarten and given a battery of speech-language tests and measures of phonological awareness performed less well on reading tests than a non-language impaired comparison group. Subjects' performance on standardized measures of language ability in kindergarten was observed to be closely related to reading performance, especially reading comprehension.

McGrew and Flanagan (1998) reviewed research on the relationship between cognitive abilities and reading. A summary of their findings over more than a decade of research in this area showed that language development and lexical knowledge were highly correlated with successful achievement in reading. They also found that language development and lexical knowledge became increasingly more important as students become older. This is likely the case because these skills are highly related to reading comprehension.

What should I do if I suspect a student has a language disorder? Complete a Teacher Language Survey for the student. Ask the parent to complete a Parent Language Survey. Your concerns about the student’s learning in the classroom should be discussed by the Student Support Team. Recommendations for classroom interventions may be made by the Team. If recommendations are made for classroom interventions, a reasonable time must be set to implement the interventions and collect data. The Student Support Team will reconvene to consider a Special Education Full and Individual Evaluation if concerns continue.

Catts, H.W. (1993). The relationship between speech-language impairments and reading disabilities, *Journal of Speech and Hearing Research*, 36, 948-958.

McGrew, K.W. & Flanagan, D.P. (1998). *The intelligence test desk reference (ITDR): Gf-Gc cross-battery assessment*: Boston: Allyn & Bacon.

Language Information Provided to Teachers and Parents Suggestions for Teacher/Parent Presentations

Forums for Presentations:

- Staff Meetings
- Grade Level Meetings
- Team Leader Meetings
- Student Support Team
- Brown Bag Lunches
- PTA Meetings
- Brochures for Teachers/Parents

Topics for Presentations:

- What is a Language Disorder?
- Completing the Teacher Language Survey
- Using the Survey to Decide When to Refer
- How to Implement Language Interventions in the Classroom

Resources for Parents and Teachers:

- Speech-Language Pathologist at the school
- ASHA Website (www.asha.org)
Site Location: [Home](#) > [The Public](#) > [Speech, Language & Swallowing](#) >
[Development](#) >

Classroom Considerations for Students Struggling with Language Skills

The following information may be gathered from classroom teachers and/or parents for consideration at the Student Support Team meeting. Consideration should be given to classroom interventions prior to a referral for a Full and Individual Evaluation (FIE) for Special Education Services. The SLP should check for level of understanding of each recommendation through the Student Support Team meeting.

Student: _____ **Meeting Date:** _____
Person Responsible: _____

| Consideration or Recommendation: | Date | Results |
|--|------|---------|
| 1. Be sure student's hearing has been checked within last three months. | | |
| 2. Determine if more than one language is spoken in the home. | | |
| 3. Discuss with parent and teacher the developmental appropriateness of language concerns. | | |
| 4. Determine if the student has previously received services for a language disorder. | | |
| 5. Teacher or parent may talk with the student about specific skills and what he/she may do differently. For example, the teacher may suggest the student repeat instructions silently, ask questions for clarification or use a particular grammatical structure. | | |
| 6. Reinforce efforts of the student to use suggestions the teacher has made such as asking for clarification, asking questions, using a modeled language structure, etc. It is recommended that this be done privately or without calling undue attention to the student's communication skills. | | |
| 7. Provide practice times for teacher, parent or peer to model correct productions or opportunities to use specified skills such as categorization, using story grammar, requesting, etc. | | |
| 8. For additional suggestions for syntax, semantics, and/or pragmatics refer to "Intervention Strategies for Students with Struggling with Language Skills". | | |
| 9. Attempts to stimulate or reinforce language skills should be discontinued at any time the child shows resistance to the activities or frustration with attempts stimulate language changes. The teacher or parent may reconvene the Student Support Team to address these concerns. | | |

Intervention Strategies for Students Struggling with Language Skills

| Date | Duration | Strategy | Results |
|------|----------|---|---------|
| | | Suggestions for Syntax – Verb Tense | |
| | | Determine if the student’s errors are the result of dialectical differences (i.e. the pattern of verb tense usage may not be atypical within his/her social group) | |
| | | Increase the student’s awareness of the problem by tape recording the student while s/he is speaking with another student who uses verb tenses correctly. Play the tape back for the student to see if s/he can identify correct/incorrect verb tense use. | |
| | | After tape recording the student’s speech, have him/her identify the errors involving verb tenses and make appropriate corrections. | |
| | | Make sure the student understands the concept of verb tenses by demonstrating what “is happening” what “already happened” and what “will happen” through the use of objects, pictures, and/or written sentences (depending on the student’s abilities). | |
| | | Determine whether the student understands the concept of time which influences comprehension of verb tenses (e.g. Can s/he answer questions using yesterday, today, tomorrow, before, later, etc.? Does s/he use such vocabulary when speaking even though the verb tense is incorrect?). | |
| | | Make a list of those verb tenses the student most commonly uses incorrectly. This list will become the guide for identifying the verb tenses which the student should practice each day. | |
| | | During the day, write down specific verb tense errors produced by the student. Read the sentences to the student and have him/her make appropriate corrections orally. | |
| | | When speaking privately with the student, restate the verb tense error with a rising inflection (e.g. “Yesterday he <u>plays</u> ?”) to see if the student recognizes errors and spontaneously makes the correction. | |
| | | Give the student a series of sentences, both written and oral, and have him/her identify the ones that contain correct verb tenses. Have the student correct the sentences with incorrect verb tenses. | |
| | | Make the conjugations of verbs a daily activity. | |
| | | Make headings entitled <i>yesterday</i> , <i>today</i> , and <i>tomorrow</i> under which students can list activities they <i>were doing</i> , <i>are doing</i> , or <i>will do</i> . The following day, change the today heading to <i>yesterday</i> and the tomorrow heading to <i>today</i> . Emphasize correct verb tenses throughout the activity. | |

| | | Suggestions for Syntax – Subject-Verb Agreement | |
|--|--|---|--|
| | | Determine if the student’s errors are the result of dialectical differences (the pattern of subject-verb agreement may not be atypical within his/her social group). | |
| | | Increase the student’s awareness of the problem by tape recording the student speaking with another student who exhibits appropriate subject-verb agreement. Play back the tape for the student to analyze and see if s/he can identify correct/incorrect subject-verb agreement. | |
| | | Make sure the student understands the concept of plurality. | |
| | | Make a list of the verbs the student most commonly uses incorrectly. This list will become the guide for learning activities in subject-verb agreement. | |
| | | Have the student complete written worksheets in which s/he chooses the correct verb forms to go with the subject of the sentence (e.g. I ____ {saw/seen} a new car.). | |
| | | When speaking privately with the student, restate the subject-verb error with a rising inflection to see if the student recognizes errors and spontaneously makes corrections. | |
| | | Write down specific subject-verb errors made by the student during the day. Give the written sentences to the student and have him/her make corrections. | |
| | | Give the student a series of sentences, both written and oral, and have him/her identify which are grammatically correct and incorrect. | |
| | | Suggestions for Syntax – Sentence Structure | |
| | | Make groups of cards containing subjects, verbs, adjectives, etc. Have the student combine the cards in various ways to construct complete sentences. | |
| | | Give the student several short sentences and have him/her combine them in order to produce one longer sentence (e.g. “The boy ate the candy.” “The lady bought the candy.” becomes “The boy ate the candy that the lady bought.”). | |
| | | Give the student a list of transition words (e.g. therefore, although, because, since, before, after) and have him/her make up sentences using each word. | |
| | | Give the student scrambled words and have him/her put them in the correct order to form a complete sentence. | |
| | | Have a number of students build a sentence together (e.g. the first student starts with a subject; the next student adds a verb. The process continues as long as possible to create one long sentence). Do not accept nondescriptive terminology. | |
| | | Ask questions that stimulate language. Avoid questions that can be answered with yes/no or a nod of the head (e.g. “What did you do at recess?” instead of “Did you play on the slide?”). | |
| | | Using a book without words, have the student tell the story using complete sentences. | |

| | | | |
|--|--|---|--|
| | | After a field trip or special event, have the student retell the activity that occurred with an emphasis on using complete sentences. | |
| | | Have the student read simple passages and tape record them. Have the student listen to the recording and mark correct and incorrect production of sentences | |
| | | Have the student create complete sentences using targeted vocabulary. | |
| | | Have the student underline words in sentences that s/he often omits or has trouble producing correctly. | |
| | | Suggestions for Semantics | |
| | | Use “hands-on” activities to teach vocabulary by constructing objects and/or organizing manipulatives. | |
| | | Have the student provide as many adjectives as possible to go with a given noun. Then have the student choose one of the adjectives and produce as many nouns as possible to go with it. | |
| | | Have the student make a book of adjectives with one or two adjectives for each letter of the alphabet. | |
| | | Give the student a picture of or suggest a specific location and have the student name as many objects, actions, persons, etc as s/he can think of that can be found there. | |
| | | Teach the student to use context clues and strategies for determining the meaning of unknown vocabulary. | |
| | | Explain how to use vocabulary resources such as a dictionary or thesaurus. | |
| | | Use visualization to help students remember how to recall words (e.g. the scent of a fragrant flower may be visualized to remember the meaning of “aroma” or the student might visualize a car parked in the park to remember the two meanings of the word “park”). | |
| | | Use visual aids whenever possible when introducing new vocabulary. | |
| | | Give the student a list of words and ask him/her to tell the opposite of each word. | |
| | | Have the student make up sentences using the new words s/he has learned. | |
| | | Give the students a list of words that come from different categories and have the student separate them into different piles as they talk about why they are putting them in the group they did. | |
| | | Name a category and have the student identify things within the category. Introduce new words that belong in the same category. | |
| | | When the student is asked to name items in a category, have him/her think of a way to organize recalling the words (e.g. when naming animals, do it by category: farm animals, zoo animals, pets, birds, fish, etc.). | |

| | | | |
|--|--|--|--|
| | | Give the student a “word of the day” and challenge him/her to work it into conversation. Reinforce the student each time s/he uses the word. | |
| | | Use word walls. | |
| | | Play word games such as “Scategories”, “Hink-pink”, etc. | |
| | | Have the student keep a notebook of all the new vocabulary words to refer to during daily conversations and activities. | |
| | | Present one concept at a time. | |
| | | Use pictures or similar words in order to help the student recognize differences. | |
| | | Use similar words in sentences to help the students recognize differences. | |
| | | Give the student a subject and have him/her list as many words as s/he can think of that are associated with the subject. | |
| | | Give the student a word and have him/her list as many words as s/he can think of that are associated with the word. | |
| | | Using a book without words, have the student tell the story using descriptive vocabulary. | |
| | | Have the student keep a notebook of difficult words encountered each day. These can be practiced by the student with teacher or peer assistant. | |
| | | Give the student a series of words (e.g. objects, persons, places, etc) and have the student list all the words s/he can think of with similar meanings (synonyms). | |
| | | Discuss the meanings of figurative language (idioms, metaphors, similes, proverbs). Have the student explain the literal and figurative meaning of the utterance. | |
| | | Give the student a list of idioms and have him/her say a sentence or tell a story using the idioms. | |
| | | Find a list of jokes that use words that have two meanings. Tell the joke, have the student select the right answer and then talk about the two meanings of the word (e.g. Why did the farmer call his pig “Ink”? Because he kept running out of the pen). | |
| | | Suggestions for Pragmatics - Conversation | |
| | | Make certain the student is paying attention before giving directions, explanations, and instructions. | |
| | | Stand directly in front of the student when giving directions, explanations, and instructions. | |
| | | Demonstrate while giving directions, explanations, and instructions with pictures, diagrams, and gestures | |
| | | Teach the student how to follow directions (e.g. stop doing other things, listen carefully, write down important points, wait until all directions are given, ask questions when you don't understand, etc.). | |

| | | | |
|--|--|--|--|
| | | Stop at key points when delivering directions, explanations, and instructions to determine student's comprehension. | |
| | | Make a list of attributes that are likely to help a person become a good speaker (e.g. take your time, what to say to get started, when to stop talking, look at your listener to see if you are being understood, etc). | |
| | | Have the student repeat directions or give an interpretation after receiving verbal directions. | |
| | | Teach the student a signal to use when s/he does not understand what is being said. | |
| | | Talk about taking turns in conversational speech. Model and practice this skill. | |
| | | Present a diagram showing good conversation skills. Discuss these and practice! | |
| | | Suggestions for Pragmatics - Narratives | |
| | | Teach the student a story grammar system. | |
| | | Use graphic organizers to help the student follow the story grammar. | |
| | | Role play stories that the student has read to help learn the sequence of the story. | |

Adapted from Stephen B. McCarney, Kathy Cummins Wunderlich, Sam House, (Editors), Pre-Referral Intervention Manual, Hawthorne, 2006.

III. Data Collection for Student Support Team

Health Information

Health information forms are essential to completing a comprehensive evaluation but are district-specific and are not included in this manual.

Teacher Information General Student Information

General student information from the teacher is essential to completing a comprehensive evaluation but is district-specific and are not included in this manual.

Teacher Information Teacher Language Survey and Summary

How to Complete the Teacher Language Survey

The purpose of this survey is to assist in collecting accurate information related to the student's speech and language skills to consider the possible presence of a language disorder and educational need. It is very important to compare this student's spoken language abilities to those of other students in your class.

- Check the box for “usually” if the student typically demonstrates this ability.
- Check the box for “rarely” if your student rarely or does not demonstrate this ability.
- **Do not** place a check in between the two boxes!
- There is space on the bottom of the second page to write any additional comments that would assist the speech pathologist in gaining a better understanding of the student's language functioning in the classroom.
- Remember that concerns regarding reading, written language, and mathematics should be addressed to the campus evaluation specialist (diagnostician, LSSP).
- Please return this form to the Student Support Team Chairperson.

Teacher Language Survey (Preschool - KN)

Student: _____ Campus: _____ Date: _____

Age: _____ Grade: _____ Person Completing Form: _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|---|----------------|---------------|
| 1. Use adjectives (function, size, color, shape, category, etc.) | | |
| 2. Name words associated with each other (salt and pepper, baseball and bat, bread and butter, garage and car) | | |
| 3. Identify items or words that go together (identify similarities of items in a category) | | |
| 4. Identify vocabulary at age level | | |
| 5. Label objects and pictures at age level | | |
| 6. Describe/tell the function of items | | |
| 7. Use phrases or sentences of appropriate length for age (compared to other students in your class) | | |
| 8. Understand and use basic concepts (color, shape, size, quantity) | | |
| 9. Understand and use place words (prepositions) | | |
| 10. Understand meaning of what is spoken | | |
| 11. Learn school vocabulary at rate of other students | | |
| 12. Initiate participation in classroom discussions | | |
| 13. Use eye gaze when communicating | | |
| 14. Respond appropriately and courteously to directions and questions | | |
| 15. Use verbal and nonverbal communication in effective ways | | |
| 16. Comprehend facial expressions and body language | | |
| 17. Ask for help when needed | | |
| 18. Stay on subject when talking | | |
| 19. Clarify spoken message when listener does not understand | | |
| 20. Listen attentively to stories and other texts read aloud | | |
| 21. Connect experiences & ideas with those of others through speaking or listening | | |
| 22. Make contributions to discussion in small and large group discussions | | |
| 23. Retell important events in activity or story | | |
| 24. Respond when spoken to or called upon | | |
| 25. Respond to simple directions and questions | | |
| 26. Use correct verb tenses (regular, present progressive, past, future) | | |
| 27. Use question forms correctly | | |
| 28. Answer questions with correct grammar | | |

Teacher Language Survey (Preschool-KN)-page 2

Student: _____ Campus: _____ Date: _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|--|----------------|---------------|
| 29. Use negation correctly | | |
| 30. Indicate possession (his, mine, the boy's) | | |
| 31. Use regular plural forms (babies, cars, toys) | | |
| 32. Put words in correct order when speaking | | |
| Total: | | |

Additional Comments:

**Teacher Language Survey (Preschool-KN)
Summary Sheet**

Student: _____ Campus: _____ Date: _____

Age: _____ Grade: _____ SLP Scoring Form: _____

Semantics-Items Scored

| Rarely | Comments |
|--|---|
| 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 | |
| Total: | 3 or more items with “rarely” checked indicate concern on this checklist |

Pragmatics-Items Scored

| Rarely | Comments |
|---|---|
| 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 | |
| Total: | 3 or more items with “rarely” checked indicate concern on this checklist |

Syntax-Items Scored

| Rarely | Comments |
|---|---|
| 26, 27, 28, 29, 30, 31, 32 | |
| Total: | 3 or more items with “rarely” checked indicate concern on this checklist |

****7 or more total items with “rarely” checked indicate concern on this checklist**

Notes:

Teacher Language Survey (Grades 1 – 12)

Student: _____ Campus: _____ Date: _____

Age: _____ Grade: _____ Person Completing Form: _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|---|----------------|---------------|
| 1. Use adjectives to describe orally (function, size, color, shape, category, etc.) | | |
| 2. Use adverbs orally (fast, quickly, slowly) | | |
| 3. Recall words associated with each other (salt and pepper, baseball and bat, bread and butter, garage and car) | | |
| 4. Group words into a category and name members of a category | | |
| 5. Understand and use antonyms and synonyms | | |
| 6. Identify vocabulary at grade level | | |
| 7. Label objects and pictures at grade level | | |
| 8. Discuss the meaning of words/define words | | |
| 9. Understand more than one meaning for a word (bat, park, foot) | | |
| 10. Understand and use basic time concepts and associated words | | |
| 11. Understand and use place words (prepositions) | | |
| 12. Understand meaning of what is said | | |
| 13. Put ideas into words, explain ideas | | |
| 14. Understand and respond to humor and sarcasm | | |
| 15. Learn school vocabulary at rate of other students | | |
| 16. Understand subtleties in word or sentence meaning (i.e. idioms, figurative language, metaphoric language) | | |
| 17. Distinguish fiction from non-fiction, including fact and fantasy | | |
| 18. Respond when called on in class within expected time | | |
| 19. Initiate participation in classroom discussions | | |
| 20. Interpret connotation from vocal intonation | | |
| 21. Use eye gaze when communicating | | |
| 22. Use adequate vocal intensity | | |
| 23. Begin, maintain, and end a conversational topic | | |
| 24. Restate thoughts in alternative form | | |
| 25. Vary style of language for listener | | |
| 26. Comprehend facial expressions and body language | | |
| 27. Ask for help when needed | | |

Teacher Language Survey (Grades 1 - 12) - page 2

Student: _____ Campus: _____ Date: _____

Age : _____ Grade: _____ Person Completing Form: _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|--|----------------|---------------|
| 28. Stay on subject when talking | | |
| 29. "Get to the point" when talking | | |
| 30. Clarify spoken message when listener does not understand | | |
| 31. Connect experiences and ideas with those of others through speaking or listening | | |
| 32. Make contributions to discussion in small and large group discussions | | |
| 33. Retell spoken message by summarizing or clarifying | | |
| 34. Retell important events in activity or story | | |
| 35. Understand and uses simple story structure orally | | |
| 36. Generate ideas before telling a story | | |
| 37. Respond when spoken to or called upon | | |
| 38. Respond to directions and questions | | |
| 39. Understand a variety of sentence structures | | |
| 40. Use subject-verb agreement | | |
| 41. Use correct verb tenses | | |
| 42. Use question forms correctly | | |
| 43. Answer questions with correct grammar | | |
| 44. Use negation correctly | | |
| 45. Use regular and irregular plural forms when speaking | | |
| 46. Use pronouns with referents | | |
| 47. Use compound sentences | | |
| 48. Use complex sentences | | |
| 49. Put words in correct order when speaking | | |
| 50. Understand structural cues such as prefixes and suffixes to recognize words (-ly and un-) | | |
| Total: | | |

Additional Comments:

Teacher Language Survey (Grades 1 - 12) Summary Sheet

Student: _____ Campus: _____ Date: _____

Age: _____ Grade: _____ SLP Scoring Form: _____

Semantics-Items Scored

| Rarely | Comments |
|--|---|
| 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 | |
| Total: | 5 or more items with “rarely” checked indicate concern on this checklist |

Pragmatics-Items Scored

| Rarely | Comments |
|---|---|
| 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38 | |
| Total: | 5 or more items with “rarely” checked indicate concern on this checklist |

Syntax-Items Scored

| Rarely | Comments |
|---|---|
| 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50 | |
| Total: | 5 or more items with “rarely” checked indicate concern on this checklist |

****10 or more total items with “rarely” checked indicate concern on this checklist**

Parent Information
General Student Information

General student information from the parent is essential to completing a comprehensive evaluation but is district-specific and not included in this manual.

Parent Language Survey

Student Name: _____ Campus: _____
 Completed by: _____ Date: _____

| | | | |
|---|----------------|---------------|-----------------|
| Student's Home Language: | | | |
| 1. Is a language other than English spoken in the home? | | | |
| Compared to other children your child's age is your child able to: | USUALLY | RARELY | COMMENTS |
| 2. Understand what you mean? | | | |
| 3. Use complete sentences when speaking? | | | |
| 4. Use the same vocabulary as other children his/her age? | | | |
| 5. Ask for help or information when needed? | | | |
| 6. Start conversations with others? | | | |
| 7. Carry on a conversation with others? | | | |
| 8. Tell a story/personal experience so that you can follow the point/idea of the story? | | | |
| 9. Understand humor? | | | |
| 10. Describe any concerns about your child's language development. (Give examples) | | | |

Cuestionario de Lenguaje Para Los Padres

Estudiante: _____ **Escuela:** _____

Llenado por: _____ **Fecha:** _____

Idioma del estudiante en casa:

1. ¿Hay otro idioma (aparte del español) que se habla en su hogar?

¿Si contesta si, cual idioma prefiere su niño hablar en el hogar?

¿Comparado con otros niños de su edad puede su niño:

USUALMENTE

RARAMENTE

COMMENTARIOS

2. ¿Entender lo que usted quiere decir?

3. ¿Usar frases completas cuando habla?

4. ¿Usar el mismo vocabulario que usan otros niños de su edad?

5. ¿Preguntar por ayuda o información cuando lo necesita?

6. ¿Empezar conversaciones con otros?

7. ¿Mantener una conversación con otros?

8. ¿Contar un cuento/experiencia personal en la cual usted entienda el punto/idea del cuento?

9. ¿Entender humor?

10. Describa algunas preocupaciones acerca del desarrollo de lenguaje de su niño. (Escriba 3-4 ejemplos.)

Student Support Team Deliberations

Student support team deliberations are essential to completing a comprehensive evaluation. The forms are district-specific and not included in this manual.

Results of Classroom Interventions

Results of classroom interventions, including the student's response to focused interventions, are essential to completing a comprehensive evaluation. The forms are district-specific and not included in this manual.

IV. Information for Standardized Assessment of Language

Critiquing Standardized Tests

There are hundreds of tests on the market and new ones appear steadily, along with the revisions and new uses of old tests. It is important that SLPs critically evaluate language tests in order to make appropriate decisions about standardized assessment and appropriate test selection in light of referral concerns.

McCauley and Swisher (1984) reported the following 10 psychometric criteria that should be used to review tests:

- 1) The test manual should clearly describe the standardization/norming sample so that the user can evaluate the test's appropriateness for a particular test taker.
- 2) An adequate sample size should be used in the standardization sample. Subgroups should have a sample of 100 or more.
- 3) The reliability and validity of the test should be promoted by the use of systematic item analysis during the test construction and item selection. To meet this criterion, the manual should report evidence that quantitative methods were used both to study and control item difficulty.
- 4) Measures of central tendency and dispersion should be reported in the manual.
- 5) Evidence of concurrent validity should be reported in the manual. Concurrent validity is high when the test effectively discriminates between typical and atypical use of the target skill.
- 6) Evidence of construct validity should be reported in the test manual.
- 7) Evidence of predictive validity should be reported in the test manual. Predictive validity shows that the test can predict later performance on another valid instrument.
- 8) An estimate of test-retest reliability should be reported in the test manual.
- 9) Empirical evidence of inter-examiner reliability should be reported in the test manual.
- 10) Test administration should be described sufficiently to enable the test user to duplicate the administration and scoring procedures.
- 11) The manual should provide information about the specific abilities needed by the examiner to administer the test.

McCauley and Swisher pointed out that only 38% of the tests they reviewed at that time met at least ½ of the criteria. While tests have improved somewhat since then, it is important for us to know that the tests we are using are as psychometrically sound as possible. An evaluation form based on the criteria suggested by McCauley and Swisher is available in Section VIII of this manual.

McCauley, R. and Swisher, L. (1984). Use and misuse of norm-referenced tests in clinical assessment: A hypothetical case. *Journal of Speech and Hearing Disorders*, 49, 338 – 348.

Psychometric Properties

There are three basic psychometric properties of a test to consider in evaluating and selecting tests. These attributes are: norm group, validity and reliability.

Norm Group

The factors important to consider in looking at norm groups are as follows:

1. **Representation:** This is the extent to which the group is characteristic of a particular population. Those factors generally thought to be most important are: age, grade level, gender, geographic region, ethnicity, and socioeconomic status.
2. **Size:** The number of subjects in a group should be at least 100 per cell for standardizing a test.
3. **Relevance:** For some purposes, national norms may be most relevant. In other cases, norms on a specific subgroup may be most relevant.

Validity

The quality that most affects the value of a test is its validity--the extent to which it gives the decision maker the needed information. In other words, validity concerns itself with the extent to which the test does the job for which it is used.

A test that helps in making one decision may have no value at all for another. Therefore, the validity of a test is always specific to the purpose for which is used. Accordingly, the appropriate question to ask is, "For what decision is this test valid?" rather than "Is this a valid test?".

Fundamentally, all procedures for determining test validity are concerned with the relationship between the performance on the test and other independently observable facts about the behavioral characteristics under consideration. In general, three principal categories of validity exist: Content Validity, Criterion-Related Validity, and Construct Validity.

Content Validity (Face Validity)

Here the procedures are essentially concerned with the adequacy of sampling from some specified domain of behavior, e.g., achievement in spelling. The appropriate question to ask is, "Does this test represent the content or activities I am trying to measure?" Content validity is built into a test from the outset through the selection of appropriate items. If a test is called a "language test" but only samples "syntax" it may not be valid if the question is asked, "Is it a valid test of language?" but could be valid if one asks, "Is it a valid test of syntax?"

Content validation is commonly used in evaluating achievement tests. To be done properly, the content area should be fully described in advance. Test specifications should show the topic to be covered, the kinds of learning to be tested (objectives), and the relative importance of objectives and topics. Content validity is the most important type of validity.

Some of the difficulties encountered in the development of content valid tests are:

1. bias toward topics for which objective items are more easily written;
2. a tendency to over-generalize, e.g., assuming that a test that measures recognition of misspelled words is also tapping the ability to spell correctly from dictation; and

3. the unintentional inclusion of irrelevant abilities, e.g., speed in performing routine operations in a test to measure comprehension of math concepts.

Various empirical procedures can be used to supplement content validation. For example, one would want to determine whether scores on a reading comprehension test increased when students in successively higher grades were tested. Correlations with other tests may reveal whether the test under consideration is tapping irrelevant/undesired factors.

In summary, content validation is appropriate for evaluating tests in that it answers two relevant questions: (1) Does the test cover a representative sample of the curricular content or behavior domain? and (2) Is the test reasonably free from influence of irrelevant variables?

Criterion-Related Validity

Criterion-Related validity is concerned with the relationship between the test and another, independent measure or outcome, the criterion. The criterion measure may be obtained at approximately the same time (concurrent) or at a future date (predictive).

Predictive Validity that is collected in the future is most relevant to such situations as selecting children who are likely to benefit from a particular therapy or determining those who will improve without intervention.

Concurrent criterion data are most appropriate for tests used in diagnosing existing status rather than for predicting future outcomes. In these situations, the test is used as a substitute for a more complex, time-consuming, and/or costly procedure or as a substitute based on theoretical differences.

Criterion-related validation is the appropriate procedure for evaluating aptitude, ability and personality tests. The greatest difficulty in doing empirical studies is to obtain a suitable criterion measure.

Validity Coefficients

A validity coefficient is an index of correlation between a test score and a criterion measure. Test manuals or technical manuals for tests commonly report validity coefficients for each criterion for which data are available.

It is essential that the test manual specify the nature of the group on which the coefficient was established. The same test may measure different things when given to individuals of different ages, educational levels, or any other relevant characteristic.

Construct Validity

Often a test is used for a specific, practical use. More often, in a diagnostic setting, we are interested in describing an individual. We want a description that may be used for several purposes.

In this case, our interest is in making statements about underlying constructs (e.g., intelligence, verbal comprehension, or anxiety). A construct is a theoretical concept and construct validation is an analysis of the meaning of test scores in terms of psychological concepts.

Construct validation is both an inductive and deductive process. It is inductive when a test developer is looking for the substantive meaning of a set of measurement operations (a specific assessment technique). It is deductive when hypotheses are derived from an understanding of the construct or knowing the associated theory. Both processes are useful in shedding light on the nature of a construct for which there is no naturally occurring criterion.

A number of different procedures or types of studies are used to establish construct validity:

1. Factor or cluster analyses. Such analyses consist of a set of mathematical and logical procedures for analyzing the interrelationships among observed data. In the process, inter-correlations among several tests can be explained in terms of a few, more abstract factors.
2. A wide range of reliability estimates. The variability of reliability estimates computed for different sets of testing conditions can reveal factors that influence test performance and provide information about the stability of the underlying construct.
3. Correlations with other variables theorized to measure the same thing.
4. Correlations with other variables that may rule out sources of variance; for example, that a test score is not appreciably affected by a substantive content (e.g., verbal fluency) or by methods of measurement (e.g., item format).

In an assessment setting, construct validity is an important concept. The test user needs an understanding of what behavior domain is being measured, with what external variables a test correlates, and evidence that the test can measure reliably under the set of conditions that it will be used.

Reliability

In choosing a test, reliability of the test is a second important consideration. If a test cannot provide sufficiently accurate or consistent or reproducible scores, then it will neither correlate highly with other variables nor provide a useful means of inference about underlying constructs.

In its broadest sense, reliability indicates the extent to which individual differences on test scores are attributable to "true" differences versus chance errors. In other words, how much of the total variance is accounted for by true variance?

Reliability estimates for tests are usually expressed in terms of reliability coefficients, a correlation coefficient. A brief description of different types of reliability coefficients follows:

Test-retest

This is probably the most obvious approach to estimating reliability--retesting with the same test. In this case, short-range random fluctuations are treated as error variance. The intervals between test administrations should rarely exceed 6 months; more than a few weeks would be too long an interval for younger subjects for whom real changes in ability can occur in a short time. The appropriate length of the interval will also vary according to the type of test. Practice effects can be a problem.

Alternate Forms

Correlation between alternate and equivalent forms of a test provides an estimate that avoids many of the difficulties associated with a test-retest approach. However, even with alternative forms, practice effects can confound the reliability estimate. By varying the interval between administrations of the forms, one can get estimates of the temporal stability as well as the consistency of the response. The matter of content sampling is important and the test publisher should demonstrate that alternative forms are, in fact, equivalent.

Internal Consistency Estimates

There are a number of ways to estimate the reliability of a test from a single test administration.

One approach is to correlate responses on odd-numbered items with even-numbered items--a "split half" reliability estimate. An important point to keep in mind about internal consistency estimates is that they should not be used with speeded tests, unless the split is made on the basis of time. Otherwise, an internal consistency estimate will be spuriously high for speeded tests.

Scorer Reliability

For most tests, errors due to scorer differences are not a significant factor. This is not true, however, for tests that are more subjective such as language samples and projective testing. As with any correlation coefficient, a reliability coefficient is dependent on the variability of the sample used. One cannot assume that the coefficient computed on a heterogeneous sample will hold for a homogeneous sample.

Factors Affecting Reliability

There are a number of factors that can affect reliability. Some of these include:

1. Test Length - The more items and the more homogeneous the items, the greater the reliability.
2. Test-Retest Intervals - The smaller the time interval between the administrations, the higher the reliability is likely to be.
3. Variability of scores - The greater the variance of the scores on the test, the higher the estimate of reliability.
4. Guessing - The more subjects can guess and the more limited the choices for guessing, the more unreliable the test will be.
5. Variations in testing situation.

Individualized Assessment Battery

The first consideration in planning the standardized assessment portion of the comprehensive language evaluation is the selection of appropriate tests. The major issues in test selection are choosing tests that meet the highest psychometric characteristics possible and at the same time probe the areas of language concern reported in the referral.

The examiner has the responsibility to select a language test battery that assesses those areas of language in which concerns have been expressed. In selecting the battery there are four things that should be considered:

- Age for which test was designed
- Comprehensiveness of battery
- Test response required
- Test task demands

To assist in selecting tests, the following were analyzed according to the areas of language they specifically test. In some cases, tests are measures of listening ability or general language skills. In these cases, information is not provided.

Boehm Test of Basic Concept - 3 (Boehm-3)
Bracken Basic Concept Scale - 3: Receptive (BBCS-3:R)
Bracken Basic Concept Scale: Expressive (BBCS:E)
Clinical Evaluation of Language Fundamentals-4 (CELF-4)
Comprehensive Assessment of Spoken Language (CASL)
Comprehensive Receptive and Expressive Vocabulary Test - 2 (CREVT-2)
Expressive One-Word Picture Vocabulary Test - 4 (EOWVT-4)
Expressive Vocabulary Test
Illinois Test of Psycholinguistic Abilities (ITPA-III)
Peabody Picture Vocabulary Test- 4 (PPVT-4)
Receptive One-Word Picture Vocabulary Test - 4
Test of Adolescent Language - 4 (TOAL-4)
Test of Language Development – Intermediate:4 (TOLD-I:4)
Test of Language Development – P:4 (TOLD-P:4)
Test of Word Knowledge (TOWK)
Word Test – Elementary - 2 (WORD-2)
Word Test – Adolescent - 2 (WORD-2)

Ages for Various Tests

The following is a list of standardized tests that can be used to assess children's language skills.

In selecting a test by age, try to find a test which places the child in the middle of the age range. If the child is at the low end you may not be able to establish a basal, and if the child is at the high end, you may not be able to establish a ceiling.

| Language Tests By Age | |
|---|-------------|
| Test | Ages |
| Boehm Test of Basic Concepts 3 – Preschool Version | 3 - 5.11 |
| Boehm Test of Basic Concepts 3 | K-2 grade |
| Bracken Basic Concept Scale – Expressive | 3.0 - 6.11 |
| Bracken Basic Concept Scale - 3: Receptive | 3.0 - 6.11 |
| Clinical Evaluation of Language Fundamentals 2 -Preschool | 3 – 6.11 |
| Clinical Evaluation of Language Fundamentals- 4 | 5 - 21 |
| Comprehensive Assessment of Spoken Language | 3 - 21 |
| Comprehensive Receptive and Expressive Vocabulary Test-2 | 4.8 – 9.11 |
| Expressive Language Test | 5 - 11 |
| Expressive One-Word Picture Vocabulary Test - 4 | 2 - 18 |
| Illinois Test of Psycholinguistic Abilities-III | 5 - 12 |
| Language Processing Test – 3 Elementary | 5 - 11 |
| Oral and Written Language Scales – Listening Comprehension and Oral Expression Scales | 6 - 13 |
| Peabody Picture Vocabulary Test - 4 | 2.5 - 21 |
| Preschool-Language Scale 5 | 0 – 7.11 |
| Receptive One-Word Picture Vocabulary Test – 4 | 2 - 18 |
| Structured Photographic Expressive Language Test – 3 | 4.0 - 9.11 |
| Test of Adolescent Language - 4 | 12 - 24 |
| Test of Language Development-Intermediate:4 | 8.0 - 17.11 |
| Test of Language Development-Primary:4 | 4.0 - 8.11 |
| Test of Narrative Language | 5 - 11 |
| Test of Semantic Skills – Intermediate | 9 - 13 |
| Test of Semantic Skills-Primary | 4 - 8 |
| Test of Word Knowledge – Level 1 | 5 - 8 |
| Test of Word Knowledge – Level 2 | 8 - 17 |
| The Listening Comprehension Test - 2 | 6 - 11 |
| The Listening Comprehension Test Adolescent | 12 - 17 |
| The Word Test-2: Adolescent | 12 - 17.11 |
| The Word Test -2:Elementary | 6 – 11.11 |

Comprehensiveness of Battery

In planning the language assessment it is important that all areas of language are addressed and that those areas of concern are assessed in depth. “Addressing” an area of language suggests that general information indicates that there are no concerns about this particular aspect of the student’s language system. “Assessing” an area of language means that data is collected and analyzed. Use the Language Model (pages 6-10) for planning a comprehensive language evaluation. Data from the referral as well as curriculum standards for the child should be considered in deciding which areas need to be assessed. The following table shows tests that were reviewed and the areas of language assessed by each subtest.

Test Response Required

Four types of responses may be required by a test: (1) speaking, (2) listening and responding non-verbally, (3) reading, and (4) writing. SLPs focus their assessment activities primarily in the areas of speaking and listening (measured with non-verbal responses). The following table provides data on the type of response required by various subtests.

| Response Required on Various Subtests | |
|--|-----------------------|
| Test - Subtest | Modality |
| Boehm Test of Basic Concepts 3 | Listening |
| Boehm Test of Basic Concepts 3 – Preschool Version | Listening |
| Bracken Basic Concepts Scale - 3: Receptive | Listening |
| Bracken Basic Concepts Scale: Expressive | Speaking |
| CASL - Ambiguous Sentences | Speaking |
| CASL - Antonyms | Speaking |
| CASL - Comprehension of Basic Concepts | Listening |
| CASL - Grammaticality Judgment | Listening |
| CASL - Grammatical Morphemes | Speaking |
| CASL - Idiomatic Language | Speaking |
| CASL - Inference | Speaking |
| CASL - Meaning from Context | Speaking |
| CASL - Nonliteral Language | Speaking |
| CASL - Paragraph Comprehension of Syntax | Speaking |
| CASL - Pragmatic Judgment | Speaking |
| CASL - Sentence Completion | Listening |
| CASL - Sentence Comprehension of Syntax | Listening |
| CASL - Synonyms | Listening |
| CASL - Syntax Construction | Speaking |
| CELF-4 – Concepts and Following Directions | Listening |
| CELF-4 – Expressive Vocabulary | Speaking |
| CELF-4 - Formulated Sentences | Speaking |
| CELF-4 - Listening to Paragraphs | Speaking |
| CELF-4 – Recalling Sentences | Speaking |
| CELF-4 – Semantic Relationships | Listening |
| CELF-4 - Sentence Assembly | Speaking |
| CELF-4 - Sentence Structure | Listening |
| CELF-4 - Word Classes | Listening Speaking |
| CELF-4 – Word Definitions | Speaking |
| CELF-4 - Word Structures | Listening |
| CREVT-2 - Expressive Vocabulary | Speaking |
| CREVT-2 - Receptive Vocabulary | Listening |
| EOWPVT - 4 | Speaking |
| EVT - Expressive Vocabulary Test | Speaking |
| ITPA-3 - Morphological Closure | Speaking |
| ITPA-3 - Spoken Analogies | Speaking |

| Response Required on Various Subtests | |
|--|-----------|
| Test - Subtest | Modality |
| ITPA-4 - Spoken Vocabulary | Speaking |
| LPT-3- Associations | Speaking |
| LPT-3 - Attributes | Speaking |
| LPT-3 - Categorization | Speaking |
| LPT- - Differences | Speaking |
| LPT3 - Multiple Meanings | Speaking |
| LPT-3 - Similarities | Speaking |
| OWLS - Listening Comprehension | Listening |
| OWLS - Oral Expression | Speaking |
| PPVT-4 | Listening |
| ROWPVT-4 | Listening |
| TACL-3 - Elaborated Phrases and Sentences | Listening |
| TACL-3 - Grammatical Morphemes | Listening |
| TACL-3 - Vocabulary | Listening |
| TAPS-R - Auditory Interpretation of Directions | Listening |
| TOAL-4 - Listening/Vocabulary | Listening |
| TOAL-4 - Speaking/Vocabulary | Speaking |
| TOLD-I:4 - Grammatical Comprehension | Listening |
| TOLD-I:4 - Malapropisms (VL) | Listening |
| TOLD-I:4 - Sentence Combining | Writing |
| TOLD-I:4 - Word Ordering | Listening |
| TOLD-I:4 Generals | Speaking |
| TOLD-I:4 Picture Vocabulary | Listening |
| TOLD-P:4 - Grammatic Completion (LS) | Listening |
| TOLD-P:4 - Grammatic Understanding | Listening |
| TOLD-P:4 - Oral Vocabulary | Speaking |
| TOLD-P:4 - Picture Vocabulary | Listening |
| TOLD-P:4 Relational Vocabulary | Speaking |
| WIAT-II - Listening Comprehension | Listening |
| WIAT-II - Oral Expression | Speaking |
| WJ III - Picture Vocabulary | Reading |
| WJ-III - Academic Knowledge | |
| WJ-III – Editing | Writing |
| WJ-III - Oral Comprehension | Listening |
| WJ-III - Understanding Directions | Listening |

Task Demands

Finally, the examiner should consider task demands when looking at the test. Task demands are the nature of the task that the child responds to. For example, there may be a multiple choice task or a task which requires the child to fill in the blank. Examples of task demands are:

Alternative replacement: The teacher asks the child to replace certain elements of a sentence.

Child: I like school.

Clinician: Use he, she, we, they.

Child: I like school, he likes school, she likes school, we like school, they like school.

Classification and categorization of structures:

Clinician: Tell me if the sentence is about Yesterday or Tomorrow. He will walk his dog.

Child: Tomorrow

Clinician: He walked his dog.

Child: Yesterday

Cloze procedures:

I _____ go to the store tomorrow. (will)

Divergent Thinking: The child is asked to give more than one correct answer to a task.

Elicited Imitation:

Clinician: Say "I am running."

Child: I am running

Comprehension questioning: Designed to elicit grammatical structures larger than the phrase?

What will happen?

Why isn't?

What should we do?

Constituent questioning: A question which elicits a single constituent of a sentence such as the verb phrase or the noun phrase.

What do you need? (elicits a noun phrase)

Where are you going? (elicits a preposition phrase)

What are you doing? (elicits a verb phrase)

Directed sentence production:

Clinician: The boys are playing soccer. Ask a question with the same words.

Child: Are the boys playing soccer?

Expansion:

Child: Me hungry.

Clinician: Yes, you are hungry.

Expansion Request:

You left out something. Tell me the whole thing.

Expatiation: Adds new information to the child's utterance

Child: The pencil is broken.

Clinician: Yes, the large pencil is broken.

Generative: The child is expected to make up their own answer.

Clinician: What does dog mean?

Multiple Choice: The child is given choices to make in response to a question.

Normalization of scrambled sentences:

Make a sentence using the following words

The The
Vase Man
Dropped Broke

The correct sentence would be: The vase the man dropped broke.

Parallel sentence production:

Clinician: This picture shows "They are swinging." What does this picture show?

Child: He is running.

Paraphrase:

Clinician: First I had a math test and then I had P.E. Now say it in a different way.

Child: Before P.E., I had a math test.

Phonemic cues:

Clinician: I want a cr _____ (cracker).

Point out error and provide appropriate form:

Child: I not hungry.

Clinician: No, It's not I not hungry; it's I am not hungry. Say I am not hungry.

Preparatory set:

Think about how you are going to make it.

Recasting: Adding additional syntactical or semantic complexity to the child's utterance.

Child: The ball is big?

Clinician: Is the ball big?

Recognition and identification of proximity of meaning:

Clinician: Tell me if the two sentences mean the same thing.

The girl was hit by the boy.

The boy hit the girl.

Child: Same

Reduced model:

Child: They big.

Clinician: Are

Child: They are big.

Replacement exchange/Structure elicitation: The clinician instructs the child to replace one element or to delete elements from the sentence modeled by the teacher. The child is shown two pictures.

Clinician: The tree is short. Now tell me about this one.

Child: The mountain is tall.

Repetition of Error:

Child: His teacher Mrs. Larson.

Clinician: His teacher Mrs. Larson?

Repetition Request:

Child: He play ball yesterday.

Clinician: Tell me that again.

Child: He played ball yesterday.

Clinician: Again

Child: He played ball yesterday.

Rephrased question:

Child: My teacher grade my homework wrong.

Clinician: Did your teacher grade your homework wrong?

Child: Yes, my teacher graded my homework wrong.

Recognition and Judgment of Correctness:

Clinician: Yesterday, the children will go on a fieldtrip. Is that right or wrong?

Child: Wrong.

Relational terms:

Child: I went to the store

Adult: Because

Child: We needed some milk

Adult: So

Child: We could eat breakfast.

Types of Terms

Additive (and)

Adversative (but; except)

Causal (because; so)

Conditional (if, unless)

Spatial (in; until, next)

Temporal (first, next, before, after, etc)

Resolution of complex sentences into component parts:

Clinician: The sentence "The boy that ate the apple is sick" has two parts. What are they?

Child: The boy ate the apple. The boy is sick.

Self-correction request:

Child: He has two baseball.
Clinician: Is that correct?
Child: He has two baseballs.
Clinician: Is it right now?
Child: Yes

Sentence Completion:

Clinician: Here is a man. Here are two _____.
Child: Men

Sentence formulation with incorporation of a word:

Clinician: Make a sentence with the word "when."
Child: The boy was unhappy when he lost his homework.

Synthesis of sentences into component parts:

Clinician: Take these two sentences and put them together.

The boy ate the apple.
The boy is sick.

Child: The boy who ate the apple is sick.

Turn-taking cues:

Can you tell John what to do?

Vertical Structuring: Asking the child a question to elicit additional information and then putting the utterance together for the child.

Child: I broke the glass.
Clinician: How did you break it?
Child: It slipped out of my hand.
Clinician: Oh! The glass slipped out of your hand and broke.

The following table provides a brief example of the task demands of various subtests:

Sample Task Demands of Various Syntactical Assessment Tests

| ELICITED IMITATION | MULTIPLE CHOICE | CLOZE |
|--|---|---|
| CELF-4 (RS) DTLA 4 (SI) TOAL 4 (SG) TOLD P:4 (SI) | CELF -4 (SS) CASL-Paragraph Comprehension TOAL 4 (LG) TOAL 4 (RG) TACL 3 (GM) TACL 3 (ES) TOLD 4 (GU) | CASL-Grammatical Morpheme CELF-4 (WS) TOLD 4 (GC) |
| STRUCTURED GENERATIVE | SCRAMBLED SENTENCE | STRUCTURED ELICITATION |
| CELF-4 (FS) TOLD I:4 (WO) | CELF-4 (SA) | |
| PROXIMITY OF MEANING | SYNTHESIS | JUDGMENT OF GRAMMATICALITY |
| CASL-Sentence Comprehension TOAL 4 (LG) TOAL 4 (RG) | TOAL 4 (WG) TOLD I:4 (SC) | CASL – Grammaticality Judgment TOLD I:4 (GC) |

Sample Task Demands of Various Semantic Assessment Tests

| MULTIPLE CHOICE | GENERATIVE | META-LINGUISTIC |
|--|--|---|
| BTBC-3 BBCS-3:Receptive BBCS: Expressive BBCS 3 – Preschool Version CASL – Basic Concepts CASL - Synonyms CELF-4 (WC) Receptive CELF-4 (SR) CELF-4 (CFD) CREVT-2 Receptive PPVT-4 TOLD-P:4 (PV) WORD 2 A | CASL - Antonyms CASL – Non-literal language DTLA (WO) EOWPVT -4 ROWPVT-4 LPT - 3 (A) LPT - 3 (B) TOLD-I:4 (G) ASSET CELF-4 Expressive Vocabulary CELF-4 Word Classes WORD-2 Elementary (B) & (D) WORD-2 Adolescent (B) & (D) | LPT -3 (C) LPT -3(D) LPT-3 (E) LPT-3 (F) TOLD-4 (OV) WORD-2 Elementary (A), (C), (E), and (F) WORD-2 Adolescent (A), (C), (E), and (F) ASSET STAL (PE) CELF-4 Word Definitions |
| CLOZE PROCEDURES | COMPREHENSION QUESTIONING | |
| CASL Sentence Completion CASL Idiomatic Language | CELF-4 Understanding spoken paragraphs | |

| SEMANTIC AREAS ASSESSED BY VARIOUS STANDARDIZED TESTS | | | | | | | | | |
|---|-------------|------------|------------|------------|----------|--------------|------------|----------|-------------|
| Test | Referential | | | Relational | | | | | Non-Literal |
| | Lexical | Contextual | Conceptual | Analogies | Antonyms | Associations | Categories | Synonyms | All areas |
| Boehm | | | X | | | | | | |
| Bracken | | | X | | | | | | |
| CELF-4 | X | | | | | | | | |
| CASL | X | X | | | X | | | X | X |
| CREVT-2 | X | | | | | | | | |
| EOWPVT – 4 | X | | | | | | | | |
| EVT | X | | | | | | | X | |
| ITPA - III | | | | X | | X | | | |
| PPVT - 4 | X | | | | | | | | |
| ROWPVT – 4 | | | | | | | | | |
| TOAL - 3 | | | | | | | | | |
| TOLD-I:4 | | | | | | | X | | |
| TOLD-P:4 | X | | | | | | | | |
| TOWK | X | X | | | | | | | |
| WORD-2E | | X | | | X | | X | X | X |
| WORD-2A | | | | | | | X | X | |

| Syntactical Areas Assessed by Various Standardized Tests | | |
|---|--|--|
| Age* | Clauses and Transformations | Inflectional Morphemes |
| 5-7 | SPELT-3 CELF-4 – Formulated Sentences CELF-4 – Recalling Sentences CASL – Syntax Construction TOLD-P:4 – Sentence Imitation | SPELT-3 CASL – Grammatical Morphemes ITPA-3 – Morphological Closure TOLD-P:4 Grammatic Completion |
| 8-11 | SPELT-3 CELF-4 – Formulated Sentences CELF-4 – Recalling Sentences CELF-4 – Sentence Assembly CASL – Syntax Construction TOLD-I:4 – Sentence Combining TOLD-I:4 – Word Ordering TOLD-I:4 – Grammatical Comprehension TOLD-P:4 – Sentence Imitation | SPELT-3 CASL – Grammatical Morphemes ITPA-3 – Morphological Closure TOLD-P:4 Grammatic Completion |
| 12-15 | CELF-4 – Formulated Sentences CELF-4 – Recalling Sentences CELF-4 – Sentence Assembly CASL – Syntax Construction CASL – Sentence Comprehension of Syntax TOAL-4 – Speaking Grammar TOAL-4 – Reading Grammar | |
| 16-18 | CELF-4 – Formulated Sentences CELF-4 – Recalling Sentences CELF-4 – Sentence Assembly CASL – Syntax Construction CASL – Sentence Comprehension of Syntax TOAL-4 Speaking Grammar TOAL-4 – Reading Grammar | |

Guidelines for Administering Standardized Tests General Testing Procedures

- 1) Read, learn, and reread the manual including both the technical portion and the instructions for administering, scoring and interpreting the test.
- 2) Always adhere to standardized procedures
 - a) Use exact wording
 - b) Maintain accurate timing
 - c) Present materials in the prescribed manner
 - d) Following scoring instructions rigidly
 - e) Do not depend solely on remembering the printed directions, but have them available for ready reference
- 3) Be objective
 - a) Give no indication of the correctness or incorrectness of the response
 - b) Give no clues about the answer you expect
 - c) Watch your verbal intonation
 - d) Remember you are testing, not teaching
- 4) Be natural
 - a) Learn to use standardized tests working in a natural and informal manner
 - b) Achieve rapport
- 5) Prepare the environment
 - a) Avoid distractions
 - b) Provide optimum conditions for good performance

Administering and Scoring the Test

- 1) Efficiency
 - a) Provide an efficient arrangement and method of manipulating materials for
 - i) Recording
 - ii) Viewing the manual without it becoming a barrier between you and the child
 - iii) Putting away and bringing out your materials
 - iv) Avoiding delays and distractions for the child
 - b) Make a smooth transition from test to test and from item to item
 - c) Know your materials and scoring well enough so you do not extend the test unnecessarily
 - d) Know and use basal and ceiling procedures when the test allows for it
 - i) When giving a test you need to know where to begin administration. This is the starting point. Many tests will say to start with number one. Other tests will give specific place to start that is dependent on the child's age. To score a test, you need to establish a basal

which is the point at which you can assume the child knows everything that comes before that point without giving him every item on the test before the starting point. The test manual will give you what the basal is – usually a specific number of correct responses in a row (5 correct responses in a row) or so many out of a number that are correct (4 out of 5 correct responses). Once you have your basal established, count all of the questions that came before the basal as correct when obtaining the actual raw score.

- ii) The ceiling is the point where you stop counting answers and discontinue the test. If the test is developmental, the child is going to come to a point where he is missing all of the items. He could become frustrated and shut down. So you need to have a point that says after he has missed so many, then we will stop. Many tests will say stop after 5 consecutive incorrect responses, or after he misses 4 out of 5 responses. Once we discontinue a test, we assume that he does not know any of the items beyond that point. If the test is not in a developmental order, then you may administer the whole test.
- iii) Check the manual to see if the test uses a basal or ceiling procedure. If it does, begin with the item suggested for the child's chronological age or suspected developmental age, whichever you feel is more appropriate.
- iv) Continue until the child gets the correct number in a row. If he does not get the number correct which is needed for the basal, go back to the first item tested and continue downwards until the child has obtained the basal.
- v) Continue testing until the child misses the number of items suggested by the test as a basal.
- vi) Assume that the child passed all of the items below the basal and that he failed all of the items above the ceiling.
- vii) When entering the information on a test protocol, you will be asked to either add the number correct to the basal or subtract the number incorrect from the ceiling. In doing this, the basal will be the number of the last item that was correct before the first error. The ceiling will be the number of the last item correct before the first error of the ceiling. Following is an example of this. The child in the example is 7 years 6 months old.

A TEST OF LANGUAGE

Instructions: Here would be information on how to administer the test. Part of the instruction might be something like: Place a 1 next to the number if the answer is correct and a 0 next to the number if the answer is incorrect.

Basal: A basal is 4 out of 6 correct responses

Ceiling: A ceiling is 4 out of 6 incorrect responses

Starting Point: For children 7-0 to 7-11 begin with item 1

For children 8-0 to 8-11 begin with item 5

For children above 9-0 begin with item 10

| | | |
|-------|-------|-------|
| 1. 1 | 11. 1 | 21. 0 |
| 2. 1 | 12. 1 | 22. 0 |
| 3. 1 | 13. 1 | 23. 1 |
| 4. 0 | 14. 0 | 24. 1 |
| 5. 1 | 15. 1 | 25. 0 |
| 6. 1 | 16. 0 | 26. 0 |
| 7. 0 | 17. 1 | 27. 0 |
| 8. 1 | 18. 1 | 28. 0 |
| 9. 0 | 19. 1 | 29. 0 |
| 10. 1 | 20. 0 | 30. 0 |

In the example, the child has 4 out of 6 responses correct by item 5. Thus the basal would be 5. The child had four out of 6 responses incorrect by item 25. Thus the highest correct response was item 24. Therefore, the ceiling is 24. To get the raw score, (depending on the test format) either add the items correct above the basal or subtract the errors below the ceiling.

| | |
|-----------------------|----|
| Basal | 5 |
| # correct above basal | 12 |
| Raw Score | 17 |

| | |
|---------------------------|---|
| Ceiling | 24 |
| # incorrect below ceiling | 7 (don't count errors below basal as wrong) |
| Raw Score | 17 |

Note that if you just count the number of "1's" you come up with the same number so that is a way to check if you have done it right.

2) Scoring

- a) It is essential that you know the scoring standard well
- b) Remember that the scoring standards are just that "standards" for scoring; It is often necessary to evaluate equivalent responses in light of other responses listed in the standard scoring
- c) Check all answers with the manual to verify your scoring
- d) Check and recheck every step in the scoring process
- e) Double-check all figures and calculations-the chronological age, the number of items correct, additions, and scores read from tables
 - i) Calculating chronological age

- (1) First write the date of testing with the year first, the month next and the date of birth last
- (2) Below that write the date of birth the same way. Below is an example

| | Year | Month | Day |
|-----------------|------|-------|-----|
| Date of Testing | 2006 | 01 | 07 |
| Date of Birth | 1998 | 10 | 02 |

- (3) Next subtract the date of birth from the date of testing. When you can't subtract such as 10 months from 01 month, you borrow from the column to the left. You would borrow a year or 12 months. That makes the months 13 and the year 2005. You can then subtract. If you borrow a month you borrow 30 days.

| | Year | Month | Day |
|-------------------|------|-------|-----|
| Date of Testing | 2006 | 01 | 07 |
| Date of Birth | 1998 | 10 | 02 |
| Chronological Age | 7 | 3 | 05 |

- (4) Finding chronological age and doing it correctly is important. A wrong chronological age can render the test data totally incorrect. First write the date of testing with the year first, the month next and the day of birth last

- 3) Recording Information – Write down as much information as possible while administering the standardized tests so that the information can be used later for making decisions. When the child makes an error, write down what he did, don't just use pluses (+) and minuses (-).

Finding the Derived Scores

Tables in the manuals for standardized tests will help you determine the appropriate derived score.

Assume you have a 7 year 6 month old male, who obtained a raw score of 15 on the Antonyms subtest (a raw score is calculated for each subtest by adding the number of correct responses, including the items below the basal) on the Comprehensive Assessment of Spoken Language (CASL). To find the Standard Score (SS), you would turn to pages 22 and 23 in the manual. If you look at the top of page 22, you will see "Table 1" and "Ages 7-6 through 7-8." This table continues to the right and on page 23. Next, locate the column that says, "Antonyms." Go down the column until you find the raw score, 15. Now determine the Standard Score by locating the corresponding number in the dark grey column directly to the left, SS of 82. Repeat these steps for each subtest administered.

Next, using the protocol, add all Standard Scores required to calculate the Composite Score. For our 7 year 6 month old male, you would add Standard Scores from the Antonyms, Syntax Construction, Paragraph Comprehension, Non-Literal Language, and Pragmatic Judgment subtests. Next, turn to page 115 in the manual. The total for our example, is 430. At the top of page 115, you'll see "Table 3" and "Ages 7-0 through 10-11." In the middle set of columns, locate the Sum of

Core Score. You will see a range of numbers, "428-432." Since our sum of 430 falls within this range, use this to find the Standard Score. To determine the corresponding Standard Score, locate the number directly to the right, which is 83.

Interpreting Derived Scores

The Individuals with Disabilities Education Act (IDEA 2004) has specific requirements for establishing eligibility for specially designed instruction, related services, and supplementary aides and services. It is important to remember that you must have more than one type of assessment procedure to make a recommendation of eligibility for IEP services. All standardized testing is one type of assessment procedure that assists in determining if the student demonstrates a language disorder. When a language disorder is present, additional informal assessment procedures must be conducted in order to document any adverse effect on educational performance resulting from the language disorder. Informal assessment procedures are addressed in the next section of this manual.

Scores within one standard deviation of the mean are considered within the average range. Test scores greater than 1.5 standard deviations below the mean are considered significantly deficient and a most likely indicates a language disorder is present. When test scores are below the tenth percentile (more than 1.25 standard deviations below the mean; standard score below 80), the student is at risk for having a language disorder and additional testing should be completed.

Using Confidence Intervals when Reporting Standard Scores

A Confidence Interval is defined as a range of values within which we are fairly confident the true population value lies. For example, a 95% CI means that we can be 95% confident that the population value lies within those limits. (Harris & Taylor, 2009, p. 96) They are typically used when, instead of simply wanting the mean value of a sample, we want a range that is likely to contain the true population value. This "true value" is another tough concept – it is the mean value that we would get if we had data for the whole population. (Harris & Taylor, 2009, p. 20)

Confidence intervals should always be reported along with standard scores so that the standard scores are not misinterpreted as a "cut off" score or an absolute value of the child's performance.

Concerns with Interpreting Test Results

An issue to consider in interpreting test scores is what test scores actually mean and how they can be interpreted. McCauley & Swisher (1984) described several misuses of standardized tests which should be considered in interpreting the results.

1. Using scores as exact measures of performance: Scores are imperfect measures and there is clearly error factored into measures. Because motivation, ability of examiner, scoring and other factors figure into the results, it is unlikely that the child will get the same score each time he is given the test.
2. Using age and grade equivalents as test summaries: Grade equivalents are not discrete measures. What is learned in reading may not be the same between 1st and 2nd grade and between 3 and 4. This is also true for age.
3. Profiles cannot be used as descriptions of patterns of impairment. While many test protocols do not have profiles on the front, one must know if the differences between the scores are

significant. In order to do this, you must use standard error of the measurement of difference or other accepted methods.

4. Performance on individual test items is not an indication of deficit in the area which is assessed by that item. This is true for several reasons:
 - a) Tests only contain a small number of items assessing any skills.
 - b) A single error may be the result of momentary attention lapse, lack of knowledge, etc.
 - c) Items are sampled only in a limited context.
 - d) Tests generally require only measures of correct or incorrect. This does not give qualitative markings or count if skill is emerging.

Guidelines for Interpreting Standardized Tests

Several different analyses should be considered when interpreting standardized language tests, including:

1. **Total quotient analysis** – This is the largest number which can be obtained on a test. Different tests use different terminology to refer to it. The Comprehensive Assessment of Spoken Language (CASL) uses Core Composite, the Clinical Evaluation of Language Fundamentals - Fourth Edition (CELF-4) uses Total Language Score. In looking at the total quotient analysis, we look to see if the total quotient is below the level required to determine the presence of concern for a disability. For tests with a mean of 100 and a standard deviation of 15, this has been set at a score of 77 or lower. Other tests may use different names.
2. **Comparison of composite scores of a test** – Composite Scores are results of groups of subtests put together to represent a specific skill. On The Comprehensive Assessment of Spoken Language, these are referred to as Index scores and include Lexical/Semantic, Syntactic, Supralinguistics, Receptive and Expressive. On the Clinical Evaluation of Language Fundamentals - Fourth Edition they are called composite scores and include Expressive, Receptive, Language Structure, Language Content, Language Content and Memory, and Working Memory Scores. Other tests may use different names.
3. **Comparing subtest scaled scores with Total Quotients or Composite scores**
4. **Comparing individual subtest scores**
5. **Comparing scores across tests** (See the Template for Language Disorders in Children with Other Disabilities)

Methods of Determining Significance of Differences

When doing comparison analyses 2, 3, and 4 above, it is important to consider whether scores are significantly different. There are three ways to determine if scores on different Composite Scores or Subtest Scores are significantly different.

- 1) Use tables provided in the test manual that show scores required to support a significant difference. An example of this is presented from the Comprehensive Assessment of Spoken Language (CASL).

The CASL provides tables that show the significance of difference between the Indexes as well as the subtests. The following table is found on the test protocol for scoring the Indexes.

| STANDARD SCORE COMPARISONS FOR CASL INDEXES | | | | | | | | | | | | | |
|---|-------------------------------|--|-----|-----|------|--|------|-----|-----|-----|-----|----|----|
| Index Scores Compared | Difference in Standard Scores | Statistical Significance of the Differences (Circle one) (Table 8 and 9) | | | | Percentage of Sample with this Difference (circle one) (Tables 10, 11, 12, and 13) | | | | | | | |
| Lexical/Semantics vs. Syntax | | NS | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% | | |
| Lexical/Semantic vs. Supralinguistic | | NS | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% | | |
| Syntactic vs. Supralinguistic | | NS | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% | | |
| Receptive vs. Expressive | | NS | .15 | .10 | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% |

To complete the table, you find the difference between any two index scores. For example, assume that the test had been given to a child who is 8 years old and the difference between Lexical/ Semantics Index and Syntax Index was 13 points. Look at Table 8 on page 126 in the manual and find that a difference of 13 points is significant at the .05 level. Enter this value - .05 in the first row. Generally speaking, differences at the .05 level are considered significant and differences at the .01 level are considered highly significant.

The manual provides similar information with which to do comparisons of subtest scores. A table is provided on the test protocol and Tables 14 and 15 provide the data for this analysis.

- 2) Comparing Confidence Intervals - The manual of many tests provides information on confidence intervals. Again, using the CASL as an example, the manual provides differences which are required for various levels of confidence. Table 2, Table 3, Table 4 and Table 5 (pages 112 – 120 in the manual) provide this information for Subtests, Core Composites, Indexes (Lexical/Semantic, Syntactical, Supralinguistic) and Indexes (Receptive and Expressive). Information is provided for the 68%, the 90% and the 95% confidence. Generally, the 90%ile is used for determining significance.
- 3) Prevalence of Difference – This type of analysis deals with what percentage of the population has a difference of this magnitude. Again we will use the CASL to explain how this is done. The following table is included in the Protocol for the test.

| INDEX SCORE COMPARISONS FOR CHILDREN | | | | | | | | | | | | | |
|--------------------------------------|-------------------------------|--|-----|-----|------|--|------|-----|-----|-----|-----|----|----|
| Index Scores Compared | Difference in Standard Scores | Statistical Significance of the Differences (Circle one) (Table 8 and 9) | | | | Percentage of Sample with this Difference (circle one) (Tables 10, 11, 12, and 13) | | | | | | | |
| Lexical/Semantics vs. Syntax | | NS | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% | | |
| Lexical/Semantic vs. Supralinguistic | | NS | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% | | |
| Syntactic vs. Supralinguistic | | NS | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% | | |
| Receptive vs. Expressive | | NS | .15 | .10 | .05 | .01 | >25% | 25% | 20% | 15% | 10% | 5% | 1% |

- a. To determine the percentage of Sample with this Difference, you subtract the lower score of the Index from the higher score of the Indexes that you are comparing to get the difference between the scores.
- b. Then go to Tables 10-13. The manual includes a table that shows you the differences required for each of the percentiles. If you are comparing the performance of an 8 year old on the Lexical/Semantic Index and the Syntactical Index and the difference is 14 points, you refer to Table 10 which shows that a difference of 13 points is at the 10% and a difference of 15 points is at the 5%. Circle the two numbers or place a circle between the two.
- c. Differences obtained by more than 10% of the norming sample are not considered unusual. Differences obtained by 5% or less of the norming sample are considered unusual.

V. Informal Assessment of Language

Instructions for Informal Assessment of Language

Informal assessment refers to the collection of data through the use of procedures that do not have measures of central tendency and measures of dispersion. These guidelines include procedures for data collection, analysis, and interpretation to complete informal assessments. The two major types of informal assessment are language samples and language probes. Informal assessment should use standardized language-sampling procedures. Language samples may be taken in conversation, narrative/storytelling, or both.

Collecting Language Samples in Conversation

The goal in taking a language sample is to obtain a sample of the student's language that represents his/her use of the most advanced language structures possible. Language samples in conversation should be collected in at least two different sampling contexts. The following collection procedures and guidelines are suggested:

- 1) Explain that you and the student will just talk for a while. Show the student the stopwatch and explain that this will help you remember when it is time to do something else.
- 2) Initially, allow students to converse about topics of their choice.
- 3) You may wish to introduce some topics of conversation. You may use any of the topics below:
 - a) Tell me about your favorite cartoon, story or movie.
 - b) Tell me about your favorite thing about school (teacher, subject, activity)
 - c) Tell me what you and your friends play (talk about).
 - d) Tell me about how to play _____ (have the game present).
 - e) Tell me how to make a _____ (sandwich, cake)
 - f) Tell me about the favorite place you have been or where you would really like to go.
 - g) I have never seen your room at home (classroom). Describe it to me.
 - h) Describe a monster to me.
 - i) Describe your pet.
 - j) Describe what you would do for your birthday party. Why would you do that? Where would you go?
 - k) When was the last time you were really mad? What made you mad? What do you do when you get mad?
 - l) Tell me about the best vacation you ever took.
 - m) Tell me a story about the funniest thing that ever happened to you.
 - n) Tell me about the saddest thing that ever happened to you.
 - o) "I don't know much about"
- 4) In facilitating conversation, the following principles should be remembered:
 - a) **Balance**: Focuses on the notion that children are more social and communicative within partnerships in which both people contribute in reciprocal ways. Keep the number of utterances per speaking turn to approximately the same number as the child's utterances.
 - b) **Match**: Suggests that a child learns best from those adults whose actions and communications are similar to the child. You can facilitate match by using utterances that are only slightly more advanced than the child's utterances.

- c) **Responsiveness**: Proposes that social and communication development depends on the sensitive response of children's significant others to subtle, emerging behaviors that are developmental steps to interaction and communication. To build responsiveness try to follow the child's lead
- d) **Non-directiveness**: Based on the assumption that children learn to communicate most effectively and interact more when they have freedom to initiate and respond with their own experiences and motivations. To build this skill limit questions and commands. Restrict your use of questions to approximately one question for every four of your speaking turns.
- e) **Attachment**: Suggests that a child must be attracted to people as a powerful source of reinforcement, modeling and enjoyment. To accomplish this, try to show sensitivity to the child's needs and wants, be accepting rather than rejecting, cooperate with the child rather than trying to insert your own agenda, and be as accessible to the child as possible.

If possible, use the same language sampling procedure as used for the norms you reference for scoring. For example, if you use the norms from Leadholm, B. and Miller, J. (1992) you should use the procedures that they used for collecting the sample. See their procedure in the Informal Evaluation Section-Informal Assessment of Syntax.

Collecting Language Samples for Narratives

Three issues need to be considered when collecting a narrative language sample. They are:

- 1) Amount of structure provided by the stimulus
- 2) Content of the stimulus
- 3) Nature of the presentation

Structure: Structure deals with the amount of information that is provided to the child by the stimulus that the clinician presents. For the purposes of this discussion we will consider three levels of structure although in reality, degree of structure falls along a continuum.

- 1) Unstructured: The child is given limited information about what is happening and must draw the narrative almost totally from his own experiences. Examples of unstructured presentations would be:
 - a) No stimulus
 - b) Memorable event – Tell me about something that happened to you which you can remember.
 - c) Doll, family, vehicles, or animals. The child is given the objects and asked to tell a story about them.
- 2) Partially structured:
 - a) Doll house with kitchen furniture and several dolls
 - b) Single Picture
 - c) Formulating a story from poster pictures.
 - d) Story Starter
 - i) Alice Story: Once there was a little girl named Alice who lived in a house near the ocean.
 - ii) Fox Story: Once there was a big grey fox that lived in a cave near the forest.
 - iii) Alan Story: Once there was a boy named Alan who had many different kinds of toys.
 - iv) Once upon a time, two friends were in a deep and dark cave.

- v) One day a pilot was flying a plane through the towering mountains.
- vi) Once there was a family who were in the hot desert
- e) Use of contextual situations to probe for problem-solving and planning abilities (Westby, VanDongen and Maggart, 1989). Examples are:
 - i) What would you do if you wanted to go to your friend's house but your mother has already told you to come directly home from school?
 - ii) Tell me a story about a girl to whom this happened.
 - iii) What might happen so that she couldn't go?
 - iv) If this happened what could the girl do to still be able to go? How could you change the story to allow this?
- 3) Highly structured:
 - a) Sequence Cards
 - b) Wordless picture books - Wordless picture books can be shown to the child to offer a basic story line. Probe for narrative ability with questions such as:
 - i) What is happening in this book?
 - ii) How do the characters feel? What are they thinking?
 - iii) Why do the characters feel the way they do? Why do the events occur as they do?
 - iv) What will happen in the future if this story were to continue?
 - c) Videos
 - d) Story retelling - In this situation, the child is told a story, either a familiar one or an unfamiliar one and is then asked to retell it. The evaluator needs to consider whether to have the child retell the story to the examiner, in which case the child may not feel the need to provide all of the detail since he is aware that the examiner already knows the story or whether the child is to tell the story to an unfamiliar person.

Content of Stimuli: This deals with which information is provided in the stimulus which the child receives to help him do the story. For example, if you say tell me a story about a man who went to the moon, you have provided the character and the place. Thus, this would not be scored as something that the child provided. Things often provided in the content of the stimuli are:

- 1) Setting
 - a) Place of Action
 - b) Time of Action
- 2) Characters
 - a) Family members
 - b) Fantasy figures
 - c) Animals
 - d) Occupational roles
- 3) Events
 - a) Series of actions
 - b) Actions towards goals
 - c) Actions to overcome obstacles
- 4) Themes
 - a) Aggression

- b) Loss
- c) Nurturance
- d) Achievement
- e) Competition
- f) Adventure

Nature of the Presentation: An example of factors to consider in the nature of the presentation can be exemplified by looking at the presentation of story retelling. In presenting a story retelling task, there are several factors in the nature of the presentation that can affect the retelling.

Examples might be:

1. Story Selection
 - a) Length
 - b) Vocabulary Level
 - c) Structure
 - d) Type of Schema
 - e) Predictability
 - f) Familiarity
2. Story Presentation
 - a) Mode of presentation – Are pictures, a wordless story book, no pictures used
 - b) Number of presentations – How many times is the child told the story
3. Method of Responding
 - a) Shared vs. unshared knowledge – Does the child tell the story to the person who told it to him or does he tell it to someone who he assumes does not know the story.
 - b) Immediate vs. delayed recall – How long is the time between when the child hears the story and tells the story?

Recommended Guidelines for Narrative Sampling:

Preschoolers: Story Retelling is the most appropriate narrative sampling task for preschoolers (Glasgow and Cowley, 1994). Visuals should be used with all story retelling tasks.

Kindergarten – Third Grade: Hughes, McGillivray, and Schmidek (1997) recommend both story retelling and story generation tasks for children in kindergarten through third grade. Visual stimuli are recommended to support the narrative task. By 3rd grade narrative sampling should include both oral and written responses.

Fourth Grade and beyond: For children in fourth grade and beyond, both story retelling and story generation are recommended, but visual stimuli may not be necessary. Narrative sampling should include both oral and written responses.

A minimum of three different samples should be collected. More may be needed if there are significant differences between the samples.

Informal Assessment of Syntax

Language Sampling is the most common type of informal assessment of syntax. Several analysis procedures are available.

- 1) Mean Length of Utterance in Morphemes – (MLU-M)
- 2) Analysis of Grammatical Errors
- 3) Analysis of Inflectional Morphemes and Certain Free Morphemes
- 4) Subordination analysis
- 5) Analysis of Mazes

Mean Length of Utterances in Morphemes (MLU-M)

I. Collecting the Language Sample

The first Step is to collect the language sample. Miller, Long, McKinley, Thormann, Jones, and Nockerts (2005) have outlined a language sample procedure and analysis norms for this procedure:

A. *Conversation: 15 minutes in length*

Elicit language in conversation related to ongoing events with either of the following activities.

- 1) Play with clay (Note: this may interfere with language production)
- 2) Activities from classroom units

- ***Introduce at least one topic absent in time and space from the sampling condition:***

- 1) Holidays – What did you do, what will you do?
- 2) Family activities, visits, locations, etc
- 3) Family pets
- 4) How to play a favorite game

- ***Questions and Prompts to facilitate talk in conversational contexts:***

The following questions and prompts have been used effectively in the past. Do not limit yourself to these examples – use whatever works for you.

1. *Conversation: Clay*

“I’ve brought some clay for us to play with today.”

“I wonder what we could make together.”

Follow the child’s suggestions: request directions; ask “I’m going to make _____. What do I need to do it?” Comment on the child’s activity with the clay.

2. *Conversation: Classroom activities, etc.*

“Tell me about some of the things you’ve been doing in school lately.” Ask about specific classroom units. “Did you do anything special for Halloween (e.g.)? Tell me about it.”

“Are you going to visit your grandma, grandpa?” “Where do they live?” “How do you get there?” “What do you do there?” “Do you have any pets at home?” “Tell me about them.” “What do you have to do to take care of them?”

B. *Narration: 15 minutes in length*

- 1) Tell a favorite story.
- 2) Retell a movie

- 3) Retell a familiar story: “Goldilocks and the Three Bears,” “Little Red Riding Hood,” or “The Three Little Pigs.” Picture prompts may be used only after every attempt has been made to elicit spontaneous speech.

- **Questions and prompts to facilitate talk in narrative contexts:**

Narrative: Movie

“Do you go to the Movies?”

“Tell me about one I haven’t seen.”

Narration Story

“Do you know any stories?”

“What is one of your favorite stories?”

“Oh, I don’t know that one very well, will you tell it?”

“Do you know “Little Red Riding Hood”? Tell me the story.”

Use prompts as necessary but make them open ended. . . . “Can you tell me more?”

“What else happened?”

Taken from: Miller, J., Long, S., McKinley, N., Thormann, S., Jones, M.A., and Nockerts, A. (2005). *Language sample analysis II: The Wisconsin guide (pp. 21-22)*. Madison, WI: Wisconsin Department of Public Instruction.

II. Analyzing MLU-M

Once the language sample is collected, the first step in analyzing the sample is to divide the sample into utterances or T-units.

In order to analyze language samples using MLU-M or Words/T-Units, divide the text into Thematic Units (T-Units) or fragments. For example, if the child says, "I went to the store and I bought some candy and I took it home and I ate it and I got sick and my mommy was mad at me", the child’s utterance is broken down into T-Units.

A T-unit is defined by Hunt (1970) as one main clause and all subordinate clausal and non-clausal elements attached to or embedded in it.

- 1) **Simple sentences** - All simple sentences are counted as one T-Unit.

"The large American wrestler fought to win the championship from the Russian" is counted as one T-Unit because it is a simple sentence.

- 2) **Compound Sentences** - Compound sentences use coordinating conjunctions. A compound sentence is generally counted as two T-Units. For example:

"Mary went to the play and she really enjoyed it" is counted as two T-Units. The first T-Unit is: "Mary went to the play" and the second T-Unit is, "And she really enjoyed it."

In cases when there is a deletion in the second clause of the sentence, the compound sentence is treated as one T-Unit. "Mary went to the play and enjoyed it" is counted as one T-Unit since the subject of the second clause is deleted and is thus a part of the first T-Unit.

- 3) **Complex Sentences:** A complex sentence contains one main clause and one or more subordinate clauses. There are two types of subordinate clauses: those using subordinating conjunctions and those using relative pronouns. Complex sentences are counted as one T-Unit. "Because she wasn't able to get into the computer program, she had difficulty completing the assignment" is counted as one T-Unit.

When you are reviewing a text or typed transcript of the language sample, a slash mark (/) is placed between each of the T-Units.

T-Units are then placed on a T-Unit Analysis Form and the morphemes or words (depending on the method you are using) are counted. The number of total morphemes is then divided by the number of utterances or T-Units to obtain the MLU-M or the Words/T-Unit measure.

Example: The child told the following story.

I was going to my grandma's house and I was driving with my mom and dad and we saw a big truck it had 18 wheels and was going real fast it started to slide it turned over and cows went all over the road we almost hit them.

The person doing the analysis would then go through the transcript and put a slash [/] at the end of each T-Units. This is shown below:

I was going to my grandma's house/ and I was driving with my mom and dad/ and we saw a big truck/ it had 18 wheels and was going real fast/ it started to slide/ it turned over/ and cows went all over the road/ and we almost hit them.

Each T-Unit is typed on a separate line of an analysis form as shown below.

| T-UNIT ANALYSIS FORM | |
|---|---------------------------|
| T-Units | MLU-M/Words/T-Unit |
| 1. I was going to my grandma's house | |
| 2. and I was driving with my mom and dad | |
| 3. and we saw a big truck | |
| 4. it had 18 wheels and was going real fast | |
| 5. it started to slide | |
| 6. it turned over | |
| 7. and cows went all over the road | |
| 8. and we almost hit them. | |

Miller et al (2005) suggested that terminal intonation contours and pauses of greater than two seconds be used to mark a boundary on an utterance. Totally or partially unintelligible utterances are not included.

Once the language sample is segmented into T-units, count the number of morphemes. Miller et al (2005) used basically the same means of counting morphemes as Brown (1973). The following are the rules which Brown (1973) used:

1. Where words or phrases are repeated deliberately for emphasis, count each occurrence (e.g., "up, up, up"). However, count no more than two repetitions of the word or phrase regardless of its use in context.
2. Count all diminutives as one morpheme (e.g., doggie, mommy)
3. Count all compound words (hotdog), proper names (Mrs. Jones), ritualized reduplication (choo-choo train) as single morphemes.
4. Count inflectional endings as separate morphemes [e.g., plural (boys), past (worked), 3rd person (he runs), progressive (is running), comparative (bigger), superlative (biggest), etc.]
5. Count irregular forms of past (ran), plural (mice) and superlative (best) as one morpheme.
6. Count regularized irregular plurals (e.g., firemans), regularized irregular past tense verbs (e.g., runned), or superlatives (e.g., bestest) as two morphemes.
7. For children over 5 (MLU 4.5), count all auxiliary verbs as separate morphemes, whether contracted or not (e.g., "is", "have", "will", "can", "am", "are") and count catenatives (e.g., "gonna", "hafta", "wanna") as two separate morphemes.
8. For children under 5 (MLU 4.5), these fused forms probably function as a single morpheme and should be counted as one morpheme.
9. Noises should be counted as a single morpheme only when they function as an integral part of the sentence (e.g., "The lion says grrrr").
10. "Well" is considered a filler; and, therefore, is not counted.
11. Omit exclamations such as "see", "let's see", "O.K.", "you know", and repetitions of the stimuli or instructions.
12. Count numbers, such as telephone or street numbers, as one morpheme (e.g., she lives at 804 Dawson Street).

Count the number of morphemes in each utterance and enter the number of morphemes on the form. When you have counted all of the utterances, add the total number of morphemes and divide that by the number of utterances which gives you the MLU-M. After determining the MLU-M, use the following tables to determine if the child's syntax is within normal limits.

| MLU-M FOR CHILDREN BETWEEN 3 AND 13 | | | | |
|--|---------------------|------|------------------|------|
| (50 Utterances) | | | | |
| Age | Conversation | | Narrative | |
| | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 3.49 | .75 | 4.23 | 1.09 |
| 4 (3;9 – 4;4) | 4.32 | 1.35 | 5.64 | 1.09 |
| 5 (5;2-5;6) | 5.57 | 1.03 | 6.09 | 1.17 |
| 6 (5;7-6;5) | 5.53 | 1.31 | 7.09 | 1.70 |
| 7 (6;7-7;6) | 6.30 | 1.36 | 8.35 | 1.72 |
| 9 (8;9-9;5) | 6.80 | 1.52 | 9.25 | 1.60 |
| 11 (10;9-11;4) | 7.51 | 2.21 | 10.42 | 1.88 |
| 13 (12;9-13;3) | 7.25 | 1.67 | 9.93 | 1.59 |

Miller, J., Long, S., McKinley, N., Thormann, S., Jones, M.A., and Nockerts, A. (2005). *Language sample analysis II: The Wisconsin guide* (pp. 21-22). Madison, WI: Wisconsin Department of Public Instruction.

Since Miller’s norms only go down to three years of age, use the norms from Miller and Chapman (1981) for younger children.

| AGE (MONTHS) | MLU | STANDARD DEVIATION |
|--------------|------|--------------------|
| 18 | 1.18 | .32 |
| 21 | 1.39 | .39 |
| 24 | 1.87 | .45 |
| 27 | 2.40 | .51 |
| 30 | 2.75 | .57 |
| 33 | 2.67 | .63 |
| 36 | 3.66 | .69 |
| 39 | 4.16 | .76 |
| 42 | 3.74 | .82 |
| 45 | 4.24 | .88 |
| 48 | 4.33 | .94 |
| 51 | 4.54 | 1.00 |
| 54 | 4.70 | 1.06 |
| 57 | 5.17 | 1.12 |
| 60 | 5.25 | 1.19 |

Controversy exists as to the criteria to use on language samples. Leadholm and Miller (1992) suggest that 1.5 to 2 standard deviations be used to determine language impairment. This manual recommends using 1.25 - 1.5 standard deviations as the difference of concern on standardized tests. In language sample analysis, determine that the MLU is below age expectations and that low language production results in an adverse effect on educational performance.

Eisenberg, S.L., Fersko, T.M., and Lundgren, C. (2001) state that while low MLU may be used as one criterion for identification of a syntax disorder, MLU above the cutoff cannot be interpreted to mean that a child does not have impairment and some qualitative evaluation should also be conducted.

Analysis of Grammatical Errors

Another way to look at syntax is to consider the number of errors which are made. Errors can be word errors or morphological errors. Errors can occur at the word level or at the utterance level. Word errors consist of overgeneralization of irregular past tense verb, pronoun errors, word choice errors, or failing to use specific referents when it was required. Errors at the utterance level include word order errors and coordination errors of tense or number. Word omissions are typically indicative of semantic problems rather than syntax. The following table provides analysis guidelines for analysis of grammatical errors.

| Number of Words and Morphemes Omitted Word- and Utterance Level Errors (50 Utterances) | | | | | |
|---|-----------------------|--------------|------|-----------|------|
| Age | Words | Conversation | | Narrative | |
| | | Mean | SD | Mean | SD |
| 3 | Words | 1.91 | 1.99 | 1.94 | 1.98 |
| | Bound Morphemes | .85 | .85 | 1.85 | 2.63 |
| | Word-level Error | 2.91 | 2.72 | 4.12 | 3.71 |
| | Utterance Level Error | 1.53 | 1.40 | 1.76 | 1.78 |
| 4 | Words | .89 | 1.22 | .78 | 1.28 |
| | Bound Morphemes | .41 | .88 | 1.11 | 1.42 |
| | Word-level Error | 2.48 | 3.06 | 4.78 | 4.21 |
| | Utterance Level Error | 2.44 | 2.65 | 3.74 | 2.71 |
| 5 | Words | 1.03 | 1.21 | 1.09 | 1.28 |
| | Bound Morphemes | .55 | .97 | .30 | .53 |
| | Word-level Error | 2.55 | 2.59 | 3.27 | 2.53 |
| | Utterance Level Error | 1.33 | 3.33 | 1.48 | 1.77 |
| 6 | Words | .39 | .70 | .71 | 1.04 |
| | Bound Morphemes | .47 | .75 | .71 | 1.25 |
| | Word-level Error | 2.14 | 2.00 | 4.02 | 3.36 |
| | Utterance Level Error | 1.37 | 1.53 | 1.93 | 1.78 |
| 7 | Words | .66 | .97 | .65 | .87 |
| | Bound Morphemes | .36 | .59 | .36 | .71 |
| | Word-level Error | 1.56 | 1.72 | 5.49 | 2.36 |
| | Utterance Level Error | 1.05 | 1.30 | 1.13 | 1.48 |
| 9 | Words | .48 | .51 | .59 | .97 |
| | Bound Morphemes | .37 | .69 | .56 | 1.63 |
| | Word-level Error | 1.15 | 1.06 | 1.37 | 1.84 |
| | Utterance Level Error | .52 | .89 | 1.11 | 1.58 |
| 11 | Words | .44 | .70 | .41 | .69 |
| | Bound Morphemes | .11 | .42 | .15 | .36 |
| | Word-level Error | 1.44 | 1.63 | 1.70 | 1.68 |
| | Utterance Level Error | .63 | .84 | .93 | 1.75 |
| 13 | Words | .74 | .94 | .41 | .80 |
| | Bound Morphemes | .41 | .69 | .33 | 1.00 |
| | Word-level Error | .44 | .70 | 2.00 | 1.24 |
| | Utterance Level Error | .15 | .36 | .67 | .76 |

Miller, J., Long, S., McKinley, N., Thormann, S., Jones, M.A., and Nockerts, A. (2005). *Language sample analysis II: The Wisconsin guide* (pp. 21-22). Madison, WI: Wisconsin Department of Public Instruction.

III. Analysis of Inflectional Morphemes and Certain Free Morphemes

Another type of language sample analysis is the analysis of inflectional morphemes and certain free morphemes to mark the following:

1. Nouns
 - a) Regular Plurals
 - b) Irregular Plurals
 - c) Possessives

2. Verbs
 - a) 3rd person singular
 - b) Past tense regular
 - c) Past tense irregular
 - d) Use of auxiliary verbs
 - i) Models
 - ii) Be
 - iii) Have
 - iv) Do
 - e) Use of non-finite verbs
 - i) infinitives
 - ii) gerunds
 - iii) participle

3. Pronouns
 - a) Person
 - i) subjective
 - ii) objective
 - iii) possessive
 - b) Indefinite
 - c) Demonstrative
 - d) Relative
 - e) Interrogative

4. Adjectives
 - a) possessive
 - b) articles
 - c) comparatives
 - d) superlatives

5. Others
 - a) adverbs
 - b) negatives

The Analysis of Inflectional Morphemes and Certain Free Morphemes Form (Section VIII - Forms) can be used to complete the analysis. All T-units should be included in the analysis. A plus (+) is placed in the space when one of the morphemes is used correctly, and a minus (-) is placed in the space

when one of the morphemes is used incorrectly. This allows the SLP to see the consistency or patterns of use of the various inflectional morphemes or other morphemes being analyzed.

| Inflectional Morphemes (per 50 utterances of Conversation) | | | | | | | | | | | | |
|---|-------------------------|------|---------|------|------------|------|---------------------|------|-------------------------------|------|------------|------|
| Age | Omitted Bound Morphemes | | Plurals | | Possessive | | Present Progressive | | 3 rd Person Plural | | Past Tense | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | .85 | 1.46 | 4.00 | 2.70 | .65 | 1.47 | 1.21 | 1.27 | .79 | .98 | .65 | .98 |
| 4 (3;9 – 4;4) | .41 | .84 | 6.81 | 4.52 | .52 | .89 | 1.56 | 1.25 | 2.19 | 2.34 | .78 | .97 |
| 5 (5;2-5;6) | .55 | .97 | 7.58 | 4.10 | 1.18 | 1.67 | 2.15 | 2.20 | 2.94 | 2.59 | 1.55 | 1.73 |
| 6 (5;7-6;5) | .47 | .75 | 7.64 | 4.10 | 1.22 | 1.42 | 1.78 | 1.91 | 3.27 | 3.01 | 1.80 | 2.10 |
| 7 (6;7-7;6) | .36 | .59 | 8.58 | 4.71 | 1.10 | 1.53 | 2.26 | 1.83 | 3.68 | 3.68 | 2.14 | 2.26 |
| 9 (8;9-9;5) | .37 | .69 | 11.0 | 6.39 | .89 | .97 | 1.96 | 1.72 | 2.26 | 2.19 | 2.00 | 2.02 |
| 11 (10;9-11;4) | .11 | .42 | 10.15 | 5.38 | 2.85 | 3.97 | 2.44 | 2.87 | 3.22 | 2.75 | 2.74 | 2.52 |
| 13 (12;9-13;3) | .41 | .69 | 8.96 | 3.61 | .30 | .67 | 4.81 | 2.48 | 2.81 | 2.30 | 1.26 | 1.85 |

| Inflectional Morphemes (per 50 utterances of narrative) | | | | | | | | | | | | |
|--|-------------------------|------|---------|------|------------|------|---------------------|------|-------------------------------|------|------------|------|
| Age | Omitted Bound Morphemes | | Plurals | | Possessive | | Present Progressive | | 3 rd Person Plural | | Past Tense | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 1.85 | 2.63 | 3.94 | 3.25 | 1.59 | 2.13 | 2.59 | 2.54 | 1.47 | 1.85 | 1.97 | 3.04 |
| 4 (3;9 – 4;4) | 1.11 | 1.42 | 7.33 | 3.74 | 2.00 | 2.42 | 1.96 | 2.38 | 4.30 | 5.75 | 3.19 | 2.87 |
| 5 (5;2-5;6) | .30 | .53 | 6.36 | 4.09 | 3.42 | 4.35 | 3.70 | 3.12 | 2.58 | 4.65 | 3.67 | 3.20 |
| 6 (5;7-6;5) | .71 | 1.25 | 6.62 | 3.83 | 2.04 | 3.19 | 3.16 | 2.70 | 3.56 | 4.64 | 5.98 | 3.86 |
| 7 (6;7-7;6) | .36 | .71 | 7.83 | 4.35 | 3.12 | 3.74 | 5.17 | 4.32 | 5.38 | 8.01 | 7.01 | 5.08 |
| 9 (8;9-9;5) | .56 | 1.63 | 9.22 | 4.41 | 4.00 | 3.74 | 6.59 | 3.92 | 4.59 | 6.16 | 8.00 | 4.73 |
| 11 (10;9-11;4) | .15 | .36 | 13.11 | 6.46 | 1.07 | 1.21 | 7.48 | 4.17 | 10.59 | 8.97 | 7.78 | 4.65 |
| 13 (12;9-13;3) | .33 | 1.00 | 11.78 | 5.90 | 1.00 | 1.11 | 5.63 | 3.35 | 7.93 | 6.60 | 7.26 | 3.65 |

IV. Subordination Analysis

This type of informal analysis focuses on transformations used by children who are 8 years or older (third grade). The assumption is that the acquisition of complex sentences is indicative of language development. Three major subordinations are considered. Each of them is explained below.

For children 8 years or older, the use of later occurring, complex syntactical structures can serve as a means of evaluating language development. Three types of subordinate clauses have been used to study later language development: Noun Phrase Complements, Relative Clause Transformations, and Adverbial Subordination.

Noun Phrase Complements: A noun phrase complement is a subordinate clause that is used as a noun. The noun may be used as a subject, a direct object, an object of a preposition, or a predicate nominative. They usually begin with *how, that, what, whatever, when, where, which, whichever, who, whom, whoever, whose, or why*. Some examples are:

1. The board proposed **that the Speech-Language Pathologists receive a higher salary based on their job descriptions.**
2. **Whatever job you choose to take** is fine with me.

Relative Clause Transformations: Relative clauses are clauses that typically serve as adjectives and they modify nouns or pronouns. They follow the noun that they modify and usually begin with a relative pronoun, although in certain cases, it can be omitted. The following are some examples of Relative Clause Transformations:

1. The Speech-Language pathologist **who works at Brown Elementary School** was recognized as the beginning teacher of the year.
2. The students decided to attend a college **that provided a distance education program.**

Adverbial Subordination: An adverbial subordination is a clause that modifies a verb, an adjective, or an adverb. It is used to tell *when, where, why, how, to what extent, or under what condition*. It is usually introduced by a subordinating conjunction. Examples are:

1. **After I finished studying for the test,** I watched *Friends* on television.
2. Mary left for her night class **before the weather turned bad.**
3. The school decided to sponsor a food drive **so that they could provide assistance to those affected by the flood.**
4. **If I get an good grade on the final,** I should get an A in the class.

Subordinate clause can also be classed as finite and non-finite. A finite subordinate clause is structurally complete meaning that it has a subject, a predicate, and all other parts needed to make it structurally complete. A non-finite clause is not structurally complete. Examples:

1. Mary knows that the class will be hard. - Finite
2. When Mary took the test, she drew a blank on question 21. - Finite
3. Being a student, Mary studies every night. – Non-finite
4. Having once attempted the assignment, it was easier the second time. – Non-finite

Some data is available to look at the use of these language structures. Take each utterance in the language sample and identify those that are complex sentences. Identify the type of complex utterance as a noun phrase complement, relative clause transformation, or adverbial subordination.

Compare results to the following normative data. In general, look at the presence or absence of the clauses as opposed to the exact number of occurrences.

| COMPARISON OF RATE OF OCCURRENCE OF SUBORDINATE CLAUSES PER 100 T-UNITS (O'DONNELL, ET AL., 1967) | | | | | | | | | |
|--|-----------------------------|---|---------------|-----------------|--------------|----------------|---------------|-----------------|--------------|
| Grade Level | Age | Rate of Occurrence of each clause type | | | | | | | |
| | | Speech | | | | Writing | | | |
| | | NPC | Adverb | Relative | Total | NPC | Adverb | Relative | Total |
| 3 | 7;4 – 10;2 (Mean 8;9) | 8.42 | 10.12 | 2.63 | 21.17 | 7.75 | 8.93 | .99 | 17.67 |
| 5 | 10;2 – 11;8 (mean 10;10) | 5.81 | 10.05 | 3.26 | 19.12 | 7.50 | 15.65 | 3.37 | 26.52 |
| 7 | 12;6 – 14;6 (mean 13; 0) | 8.87 | 12.83 | 3.90 | 25.60 | 7.47 | 17.60 | 4.46 | 29.53 |
| Type of Language: Story of silent cartoon film children had just seen | | | | | | | | | |

| USE OF FINITE SUBORDINATE CLAUSES IN CHILDREN'S SPEECH/100 T-UNITS (O'DONNELL ET AL., 1967) | | | | | | | | |
|--|-----------------------------|-----------------------------------|---------------|-----------------|---|---------------|-----------------|--------------|
| Grade Level | Age | Percentage of Clause Types | | | Rate of Occurrence of Clause Types | | | |
| | | Nominal | Adverb | Relative | Nominal | Adverb | Relative | Total |
| Kinder | 5;3 – 6;4 (mean 5;10) | 34 | 37 | 29 | 5.57 | 6.07 | 4.77 | 16.41 |
| 1 | 6;3 – 7;4 (mean 6;8) | 38 | 47 | 15 | 7.27 | 9.17 | 3.00 | 19.44 |
| 2 | 7;2 – 9;3 (mean 7;10) | 39 | 44 | 17 | 7.00 | 7.87 | 3.15 | 18.02 |
| 3 | 7;4 – 10;2 (mean 8;9) | 40 | 48 | 12 | 8.42 | 19.12 | 2.63 | 21.17 |
| 5 | 10;2 – 11;8 (mean 10;10) | 30 | 53 | 17 | 5.81 | 10.05 | 3.26 | 19.12 |
| 7 | 12;2 – 14;6 (mean 13;0) | 35 | 50 | 15 | 8.87 | 12.83 | 3.90 | 25.60 |
| Type of speech: Telling story of a silent cartoon film children had just seen | | | | | | | | |

V. Analysis of Mazes

A final consideration in analysis of syntax is the presence of mazes. Several types of mazes occur. Mazes are noted by parenthesis (). The most common mazes are:

- Filled Pauses:
 - (um) the boy (er) went
- Repetitions:
 - Part word: (Th*) The boy
 - Word: (The) The boy
 - Phrase: (The boy) The boy went . . .
- Revisions:
 - Word: The (boy) girl went . . .
 - Phrase: (The girl is) The girl went . . .

Generally speaking, mazes increase in narrative contexts, as compared to conversation, and also occur when longer utterances are attempted in context. Children 3 to 13 years of age produce mazes in 15 to 25 percent of conversational samples and 20 to 41 percent of narrative samples.

Mazes generally increase with age. It is not unusual for children with language disorders to produce 80% of their utterances with mazes. The following table presents information on mazes.

| Mazes in Conversation (50 Utterances) | | | | | | | | | | |
|--|-----------------------|------|--------------|-------|----------------|-------|--------------------------|------|----------------------|------|
| Age | Utterances with Mazes | | No. of Mazes | | No. Mazes Word | | % Maze words/Total Words | | Abandoned Utterances | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 8.65 | 4.63 | 9.62 | 5.34 | 18.65 | 11.36 | 10.03 | 5.02 | 2.12 | 1.85 |
| 4 (3;9 – 4;4) | 9.85 | 5.25 | 12.19 | 7.97 | 23.81 | 21.90 | 10.07 | 6.74 | 1.41 | 1.22 |
| 5 (5;2-5;6) | 11.15 | 5.28 | 13.64 | 18.40 | 26.06 | 18.40 | 8.73 | 5.00 | 2.27 | 2.36 |
| 6 (5;7-6;5) | 13.58 | 4.58 | 16.93 | 7.03 | 31.24 | 15.39 | 10.98 | 4.64 | 2.07 | 1.52 |
| 7 (6;7-7;6) | 14.75 | 6.40 | 19.79 | 10.31 | 38.58 | 25.83 | 11.08 | 5024 | 1.92 | 1.73 |
| 9 (8;9-9;5) | 12.33 | 4.79 | 15.89 | 7.89 | 28.74 | 13.97 | 8.22 | 3.24 | 2.70 | 2.28 |
| 11 (10;9-11;4) | 11.70 | 5.74 | 14.67 | 7.98 | 24.81 | 15.11 | 6.37 | 3.15 | 2.07 | 1.86 |
| 13 (12;9-13;3) | 12.07 | 4.80 | 15.33 | 7.02 | 26.22 | 13.09 | 7.30. | 2.85 | 3.93 | 2.81 |

| Mazes in Narratives (50 Utterances) | | | | | | | | | | |
|--|-----------------------|------|--------------|-------|----------------|-------|--------------------------|------|----------------------|------|
| Age | Utterances with Mazes | | No. of Mazes | | No. Mazes Word | | % Maze words/Total Words | | Abandoned Utterances | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 10.00 | 4.98 | 12.03 | 6.67 | 21.32 | 14.15 | 9.44 | 5.43 | 3.32 | 2.42 |
| 4 (3;9 – 4;4) | 13.74 | 5.45 | 18.89 | 9.20 | 39.63 | 22.61 | 12.81 | 5.83 | 2.19 | 2.17 |
| 5 (5;2-5;6) | 13.55 | 5.52 | 17.09 | 8.10 | 33.00 | 19.99 | 10.00 | 4.57 | 2.70 | 2.32 |
| 6 (5;7-6;5) | 17.11 | 6.61 | 23.58 | 11.51 | 50.84 | 31.02 | 13.04 | 5.52 | 2.22 | 1.95 |
| 7 (6;7-7;6) | 19.42 | 7.38 | 27.77 | 14.31 | 54.75 | 34.74 | 11.99 | 5.48 | 2.78 | 2.41 |
| 9 (8;9-9;5) | 17.33 | 6.12 | 22.41 | 9.54 | 42.81 | 18.33 | 9.30 | 3.76 | 2.48 | 2.17 |
| 11 (10;9-11;4) | 22.67 | 6.31 | 28.67 | 10.12 | 53.48 | 22.57 | 10.26 | 4.27 | 4.26 | 3.30 |
| 13 (12;9-13;3) | 19.00 | 4.47 | 26.19 | 8.35 | 46.59 | 18.02 | 9.30 | 3.00 | 4.15 | 2.98 |

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| T-UNIT ANALYSIS | | | | | |
|------------------------|------------------------------|--------------------------|---------------------------|---|--------------------|
| Utterance | Morphemes/ T-Unit | Words/ T-Unit | Clause/ T-Unit | % of Grammatically Correct | Qualitative |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| Total | | | | | |

Analysis of Inflectional Morphemes and Certain Free Morphemes

Student: _____ **SLP:** _____
Date of Birth: _____ **CA:** _____
Campus: _____ **Date Form Completed:** _____

Place a plus (+) in the column if the item occurs and is correct. Place a minus (-) in the column if the item occurs and has an error

| # | Utterance | Noun Inflectional Morphemes | | | | | | Verbs | | | | | | | Pronouns | | | | | Other | | | | | | | | |
|-------|-----------|-----------------------------|------------|------------|-------------|------------------------|------------|----------------------|-------|-------|------|------------|------------|--------|-------------------|---------|----------------|------------|------------|---------------|----------|---------------|------------|---------|-------------|-------------|--------|----------|
| | | Inflectional Morphemes | | | | | | Auxiliary Verbs | | | | Infinitive | | | Personal Pronouns | | Other Pronouns | | | Adjective | | Misc. | | | | | | |
| | | Regular Plural | Irr Plural | Possessive | Progressive | 3 rd Person | Past Tense | Irregular Past Tense | modal | to be | have | do | Infinitive | Gerund | Participle | Subject | Object | Possessive | Indefinite | Demonstrative | Relative | Interrogative | Possessive | Article | Comparative | Superlative | Adverb | Negative |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Informal Assessment of Semantics

There are several areas of inquiry that have been suggested to consider when doing informal assessment of semantics. Listed below are those areas which have been shown to distinguish between children with language impairment and children with normal language. Each should be considered as possible areas to assess for children who are suspected of having semantic problems:

1. ***Measures of expressive and receptive vocabulary*** – Vocabulary acquired, or vocabulary count, is one important area of semantics to evaluate. Early deficits in vocabulary size are not strongly predictive of later language abilities. Studies looking at early vocabulary development found that 75% or more of children who were identified with limited expressive vocabulary at 2 years of age did not present with language deficits by age 6 (reviewed in Brackenbury and Pye, 2005).
2. ***Holding phonological forms in short-term memory*** – This task measures the child's ability to hold sequences of sounds in short-term memory. The task is typically presented by having the child repeat nonsense syllables of varying lengths. This task has been shown to be problematic for children with language impairments.
3. ***Extracting word meaning*** – This is learning new words in indirect teaching environments. Children with language disorders can learn new words in an indirect teaching environment; however, they are much less skilled than children with typical language development.
4. ***Storage, organization, and access of lexical items*** - Research has shown that children with language disorders have a smaller number of lexical entries than their peers. They may have less information that is associated with individual entries and they may have inadequate connections between those lexical entries.
5. ***Perceiving and isolating phonological forms*** – This task involves isolating individual words from the stream of speech. No evidence has been found to suggest that this is a problem for children with language impairment.

Measuring expressive and receptive vocabulary

The Type-Token Ratio (Templin, 1957), is a well-standardized procedure for informally assessing this aspect of language. The Type-Token Ratio (TTR) is a procedure that counts the number of words and the number of different words that occur in a language sample. The TTR is seen as indicative of vocabulary growth. The language sample is collected using the same procedures as described for syntax.

Three basic scores are obtained using this procedure. They are: Number of Total Words, (NTW), Number of Different Words (NDW), and Type-Token Ratio (TTR). As a general rule, Number of Words and Number of Different Words are more sensitive than Type-Token Ratio. The procedures for analyzing language samples for Type-Token Ratio are as follows:

1. Collect a language sample of at least 50 utterances.

2. Transcribe the sample by writing it out. It is not necessary to transcribe phonetically.
3. Count the total number of different words the child uses in the sample.
4. The rules for counting words are as follows:

| Rules For Counting Number Of Words |
|---|
| <ul style="list-style-type: none"> • Contractions of subjects and predicates like “it's” and “we're” are counted as 2 words. • Contractions of the verb and the negative such as “can't” are counted as 1 word • Each part of the verbal combination is counted as a separate word. Thus "have been playing" is counted as 3 words. • Hyphenated and compound nouns are 1 word. • Expressions that function as a unit in the child's understanding are counted as 1 word. Thus “oh boy”, “all right”, etc are counted as 1 word, while Christmas tree is counted as 2 words. • Articles <i>a</i>, <i>the</i>, and <i>an</i> count as 1 word • Bound morphemes and nouns and verb inflections are not counted as separate words. |

The first time the word occurs, write it on a sheet of paper. For each subsequent occurrence of the same word, place a [/] after the first occurrence. For example, if the word ‘the’ occurs in a sentence, write the word ‘the’ on the sheet of paper. The second time it occurs, do not write the word again but put a [/]. Thus it will now appear as: [the /] If it occurred seven times in the sample, it appears as: [the /////].

5. Do this for all 50 utterances.
6. After recording all the words, count the total number of different words (NDW) which occurred in the sample. Do this by counting how many are written on the attached form.
7. Next, count the number of total words which occurred in the sample by adding the total number of [/] on the page (form) to the number of different words found in Step 6 .
8. Now divide the number of different words that occurred by the total number of words that occurred. The resultant number is called the Type-Token Ratio (TTR).
9. In interpreting data from the TTR, three sources of data may be useful. They are the total number of words, the total number of different words, and the actual TTR.
10. Generally speaking, the TTR is the least useful. Two sources for interpreting data collected for TTR can be found in the Normative Data section for TTR.

The Type-Token Ration Analysis Form on the next page can be used to complete the analysis. Once the analysis has been completed, use the tables shown in this section to interpret the data.

Type-Token Ratio Analysis Form

Student: _____ SLP: _____

Date Form Completed: _____ Campus: _____

| | | | | |
|--|----------|----------|----------|------------|
| A | B | C | D | E |
| F | G | H | I | J |
| K | L | M | N | O |
| P | Q | R | S | T |
| U | V | W | X | Y/Z |
| Total number of different words | | | | |
| A. Total number of words | | | | |
| B. Type-Token Ratio | | | | |

Type-Token Norms

| Total Number Of Words And Different Words In T-Unit Sample Based On 50 Utterances | | | | | |
|--|-----------|--------------|-------|-----------|-------|
| Age | Words | Conversation | | Narrative | |
| | | Mean | SD | Mean | SD |
| 3 | Total | 160.53 | 33.91 | 194.26 | 49.97 |
| | Different | 76.35 | 16.86 | 83.41 | 17.84 |
| 4 | Total | 195.78 | 60.68 | 257.19 | 48.17 |
| | Different | 92.07 | 24.41 | 108.26 | 17.75 |
| 5 | Total | 254.48 | 45.79 | 277.82 | 54.75 |
| | Different | 114.91 | 18.97 | 110.12 | 15.47 |
| 6 | Total | 251.83 | 59.93 | 325.31 | 80.25 |
| | Different | 112.95 | 20.53 | 121.44 | 21.11 |
| 7 | Total | 287.05 | 62.04 | 379.46 | 78.64 |
| | Different | 124.89 | 17.94 | 132.97 | 20.53 |
| 9 | Total | 311.70 | 66.61 | 419.41 | 73.43 |
| | Different | 133.48 | 21.48 | 133.26 | 25.11 |
| 11 | Total | 342.41 | 99.39 | 465.44 | 84.24 |
| | Different | 141.70 | 29.12 | 168.70 | 24.69 |
| 13 | Total | 330.15 | 78.92 | 447.96 | 72.02 |
| | Different | 139.00 | 24.92 | 159.11 | 21.17 |

Miller, J., Long, S., McKinley, N., Thormann, S., Jones, M.A., and Nockerts, A. (2005). *Language sample analysis II: The Wisconsin guide (pp. 21-22)*. Madison, WI: Wisconsin Department of Public Instruction.

Controversy exists as to the criteria to use for concern on language samples. Leadholm and Miller (1992) suggested that 1.5 to 2 standard deviations be used to determine language impairment. This manual recommends using 1.25 - 1.5 standard deviations below the mean as the criteria for concern on standardized tests. For informal measures such as Type-Token Measures, determine that the student is performing below expected levels for age and that there is an adverse effect on educational performance that seems to be linked to lexical diversity.

Stickler's Approach

In addition to knowing how many different words a child says in a sample, we are interested in whether he/she uses various classes or types of words such as pronouns or verbs. Stickler (1987) suggested a modification of the TTR which takes into consideration the various classes or types of words. In addition to noting all the different words, she recommended counting the different *types* of words used in the sample. The categories she suggested were: nouns, verbs, adjectives, adverbs, prepositions, pronouns, conjunctions, affirmatives (*okay, yes, etc.*), negatives (*no, not, etc.*), articles, and wh-words (*who, when, etc.*). After sorting the sample words into their respective categories, divide the number of each type of word by the total number of words in the sample. This gives you additional information about the diversity of word types in the sample.

The following form can be used to analyze data using Stickler's approach.

Name of Child: _____ Name of SLP: _____

Date of Birth: _____ CA: _____ School: _____

Date of Language Sample: _____

| TYPE-TOKEN RATIO ANALYSIS FORM | | | | |
|---------------------------------------|---------------------|-----------------------------|-----------------|---------------------|
| Nouns | Verbs | Adjectives | Adverbs | Prepositions |
| | | | | |
| Total: | Total: | Total: | Total: | Total: |
| Pronouns | Conjunctions | Negative/Affirmative | Articles | Wh-Words |
| | | | | |
| Total: | Total: | Total: | Total: | Total: |

Learning new words in an indirect teaching environment

The Diagnostic Evaluation of Language Variation (DELV™) is a norm-referenced test that can be used to look at this area in children from ages 4 to 9. It is available through the Psychological Corporation.

Holding phonological forms in short-term memory

This area has been suggested as a strong indicator of semantic learning problems. Dollaghan and Campbell (1998) developed a procedure for children from 6-0 to 9-9 years of age. Children are presented with 16 non-words at four different syllable lengths.

| PHONETIC TRANSCRIPTIONS OF THE NONWORDS AT EACH LENGTH | | | |
|--|--------------|----------------|-----------------|
| One Syllable | Two Syllable | Three Syllable | Four Syllable |
| /naɪb/ | /teɪvək/ | /tʃɪnɔɪtaʊb/ | /veɪtəʃaɪdɔɪp/ |
| /voʊp/ | /tʃoʊvæg/ | /naɪnʃoʊveɪb/ | /dævounɔɪtʃɪg/ |
| /taʊdʒ/ | /vætʃaɪp/ | /dɔɪtaʊvɔɪb/ | /naɪtʃɔɪtaʊvʊb/ |
| /dɔɪf/ | /nɔɪtaʊf/ | /teɪvɔɪtʃaɪg/ | /tævəʃɪnaɪg/ |

These words were taped and presented to a child using a high quality cassette recorder and headphones at a comfortable listening level.

Each phoneme (consonant or vowel) is scored as correct or incorrect. Phoneme substitutions and omissions are scored as incorrect. Additions are not counted as incorrect. When the child said the syllables out of order, the syllables are sequenced as best possible and then scored on that basis. For example, if the child was attempting to say /dævounɔɪtʃɪg/ but said /voʊtʃɪp/, the production is scored as having attempted the second and fourth syllable, and having omitted the first and third. The words are scored further phoneme by phoneme so in this case, the final /g/ is an error. Use the results to calculate the Percentage of Consonants Correct (PCC). In the sample, there was no difference in the PCC for the language impaired children and language-typical children on the one syllable and two syllable words, however there was a significant difference in the PCC for the three and four syllable words.

The score sheet below can be used to record and analyze the data.

Repetition of Non-Words Assessment

Child's Name: _____ Date of Assessment: _____

Evaluator: _____

| Repetition of Non-Words Assessment | | | | | | |
|--|---------------|-----------------|------------------------------|-----------------|-----------------|-----------------|
| Nonsense words | Transcription | # of Consonants | Number of Consonants Correct | | | |
| | | | 1 syllable word | 2 syllable word | 3 syllable word | 4 syllable word |
| /naɪb/ | | | | | | |
| /voup/ | | | | | | |
| /taudʒ/ | | | | | | |
| /dɔɪf/ | | | | | | |
| /teɪvək/ | | | | | | |
| /ʃouɪvæg/ | | | | | | |
| /væʃaɪp/ | | | | | | |
| /nɔɪtaʊf/ | | | | | | |
| /ʃɪnɔɪtaʊb/ | | | | | | |
| /naɪnʃouɪvɛɪb/ | | | | | | |
| /dɔɪtaʊvɔɪb/ | | | | | | |
| /teɪvɔɪʃaɪg/ | | | | | | |
| /veɪtaʃaɪdɔɪp/ | | | | | | |
| /dævounɔɪʃɪg/ | | | | | | |
| /naɪʃɔɪtaʊvʊb/ | | | | | | |
| /tævæʃɪnaɪg/ | | | | | | |
| Total Consonants | | | | | | |
| Consonants Correct for each length syllable | | | | | | |
| Sum of Consonants Correct for all syllable lengths | | | | | | |
| PCC for each syllable length | | | | | | |
| PCC (Total of all syllable lengths) | | | | | | |

The following table can be used to interpret findings for the PCC. The table shows the PCC for children with normal language and for children with language impairments. The standard deviations are only shown for the three (3) syllable and four (4) syllable words.

| Group | Percentage of Consonants Correct | | Standard Deviation | |
|------------------|----------------------------------|-------------------|--------------------|-------------------|
| | Normal Language | Language Impaired | Normal Language | Language Impaired |
| 1 syllable words | 91 | 86 | | |
| 2 syllable words | 92 | 83 | | |
| 3 syllable words | 90 | 68 | 4.5 | 10 |
| 4 syllable words | 71 | 50 | 5.5 | 7.5 |
| Total | 84 | 66 | 3 | 8.5 |

Storage, organization, and access of lexical items

Generally speaking we can use standardized assessments to assess this area. Storage and organization can be reviewed by analyzing subtests that evaluate multiple meanings, antonyms and synonyms, to evaluate how words in the child's lexicon are connected. The Test of Word Finding – 2 can be used to look at access of lexical items.

Informal Assessment of Pragmatics

Informal Assessment of Communicative Intent

General Principles for Assessing Communicative Intent

It is important, particularly in the assessment of a young child to be able to identify whether or not the child has communicative intent. Not all intentional behaviors are communicative and not all communicative behaviors are intentional. The following is a list of possible indicators of intent:

- 1) child alternates looking at his goal and his listener
- 2) persistence of behavior until goal is met or declined
- 3) unsuccessful attempts lead to alterations in behavior until goal is met
 - a) behavior is ritualized in specific contexts
 - b) child waits for a response
 - c) child stops behavior when goal is met
 - d) child shows pleasure or displeasure depending on the outcome of his attempts
 - e) unconventional acts should be considered as potentially communicative (e.g., aggression, tantrums, self-abuse, etc.)

Coggins (1988) further suggested that the following criteria for scoring communicative intent

- 1) Establish that the child is jointly participating with the adult in some activity. This can be determined by observing if one or more of the following is occurring:
 - a) The child attends to the adult within 3 seconds of a communicative intention interaction.
 - b) Close physical proximity between the adult and the child
 - c) Recent physical proximity between the adult and the child
 - d) Recent gestural/vocal or verbal contact between the adult and the child.

There are many general principles which should be considered in the assessment of communicative intent

Use a taxonomy which is appropriate for the age of the child being assessed and broad enough to encompass the complex intents a child at that age may use. The following section contains three taxonomies. The taxonomy from Wetherby, Cain, Yonclas, & Walker (1988) is appropriate for children whose development is from 1 year through approximately 3 years of age; the taxonomy by Dore (1978) is most appropriate for children whose development is from 2 until 5; and the taxonomy by Tough (1977) is most appropriate for children above 4 ½ years.

If someone other than the clinician (i.e., a parent or teacher) is going to collect the language sample, clear directions should be given on procedures for collecting the sample. Carpenter and Strong (1988) provided the following directions for conducting a low-structure activity.

- 1) You are encouraged to sit back and be passive. To this end, the following rules are suggested:

- a) Remain seated on the floor and do not move around the room. (A pillow placed on the floor for the parent to sit on serves as a reminder.)
 - b) Follow the child's lead as he interacts with the toys; the child's play must not be directed or orchestrated by you.
 - c) Respond to the child in a natural manner. This means that you can comment on his/her play but not direct or suggest ideas to the child.
- 2) Do not touch the toys unless directed to do so or unless given a toy by the child. When given a toy, acknowledge it and put it down as soon as possible.
- 3) Try and repeat what the child says. (This will make it easier for us to score later.)
- 4) The SLP will analyze:
- a) The variety of functions and intents expressed. Use the taxonomies for this analysis.
 - b) Sophistication of the means used for expression. Wetherby and Prizant (1989) include the following factors here:
 - i) Communicative means: The actual nonverbal (gestures, gaze), vocal, and/or verbal (use of words, signs) signals used; the complexity and content of verbal acts should be specified.
 - ii) Linguistic context of the behavioral act: The language produced prior to or following a communicative act to determine semantic contingency or discourse structure (e.g., does the act repeat the prior utterance, provide information following a question, respond to a request for action, clarify a previous communicative attempt).
 - iii) Nonlinguistic context of the behavioral act: Vocalizations, gestures, and facial expression that augment the communicative act (e.g., a facial expression of delight).
 - iv) Was the act interactive or noninteractive: Did the child address another person and/or an object or event; consider nonverbal behaviors such as body orientation, eye contact, gaze checks and visual regard toward a person, object, or event to clarify whether a behavioral act is intended to serve a communicative function or to serve a noninteractive physiological or emotional states.
 - v) Did the child await a response: Did the child display evidence of expecting a specific response to determine whether the child had a plan in mind and was attempting to accomplish a specific goal?
 - vi) Nature of the adult's response: Did the adult's response serve an environmental end, a social end of attending to the child, or a social end of attending to an object or event; the nature of the adult's response provides information as to the specific function that the act served.
 - vii) Did the child accept or resist the subsequent adult response: Did the child show acceptance or resistance to the adult's response; the child's reaction to the adult's response clarifies whether intent is expressed successfully or not.
 - viii) Aspects of the situational context: Events occurring immediately before, during, or after the behavioral act to further clarify intent or function (e.g., a child may initiate a behavioral act upon seeing a desirable or aversive activity being introduced).

A sample should be collected over a period of 2 days if child's rate of communicative acts is below 30 in a 30-minute sample. The child should show an increase in communication after the situation is familiar.

Present Level of Performance for Communicative Intent

The samples of language for analyzing communicative intent should include both low structure and elicited examples.

Examples of low structured activities are included below:

1. Wetherby & Prutting (1984) suggest the following materials and that each should be used for at least 2 activities.
 - a) doll and miniature doll-size utensils, including 2 spoons, 2 plates, 2 teacups, 1 pitcher, 1 comb, 1 hair brush, and 1 mirror.
 - b) realistic objects including a cup, spoon, hairbrush, comb, mirror and toothbrush.
 - c) doll and abstract object, including a cloth, 2 popsicle sticks, 2 red blocks and 2 green blocks.
 - d) common toys, including plastic telephone, small plastic hammer, a plastic airplane with wheels, a plastic car with wheels, and a small rubber clown.
 - e) six wooden blocks, a ring stacker and 6 rings of decreasing size, a string and 6 beads, and 6 nesting cups.
2. Coggins, Olswang, and Guthrie(1987) suggest use of four activities within a 30-minute period. Toys are organized into four, thematically related play activities. The materials selected include:
 - a) Farm: Fisher Price barn, silo, tractor, wagon, four pieces of fence, trough, horse with harness, cow, pig, chicken rooster, sheep, dog, five plastic people.
 - b) Tea Party: Table, two chairs, stove, two big plates, two little plates, three saucers, two cups, two glasses, one pitcher, one bowl, one frying pan, one coffee pot, two knives, two forks, two spoons, one spatula, two dolls.
 - c) Transportation: Garage, Jeep, Dump truck, Motorcycle, Tractor, Canoe, three plastic dolls, man, women, boy, ten wooden logs
 - d) Nurturing: Crib, pillow, dolls, baby doll, telephone, brush, comb, hat, two blankets

In addition to planning the materials you should also have elicitation activities planned during the assessment. Wetherby and Prizant (1989) developed what they called "Communication Temptations". The following are the ones that they used:

1. Eat a desired food item in front of the child without offering any to the child.
2. Activate a wind-up toy let it deactivate, and hand it to the child.
3. Give the child four blocks to drop in a box, one at a time (or use some other action that the child will repeat, such as stacking the blocks or dropping the blocks on the floor); then immediately give the child a small animal figure to drop in the box.
4. Look through a few books or a magazine with the child.
5. Open a jar of bubbles, blow bubbles, and then close the jar tightly and give the closed jar to the child.
6. Initiate a familiar and an unfamiliar social game with child until the child expresses pleasure, then stop the game and wait.
7. Blow up a balloon and slowly deflate it; then hand the deflated balloon to the child or hold the deflated balloon up to your mouth and wait.
8. Hold a food item or toy that the child dislikes out near the child to offer it.
9. Place a desired food item or toy in a clear container that the child cannot open while the child is watching; then put the container in front of the child and wait.
10. Place the child's hand in a cold, wet, sticky substance, such as jello, pudding, or paste.

11. Roll a ball to the child; after the child returns the ball three times, immediately roll a different toy to the child.
12. Engage the child in putting together a puzzle. After the child has put in three pieces, offer the child a piece that does not fit.
13. Engage the child in an activity with a substance than can be easily spilled (or dropped, broken, torn, etc), suddenly spill some of the substance on the table or floor in front of the child and wait.
14. Put an object that makes noise in an opaque container and shake the bag; hold up the container and wait.
15. Give the child the materials for an activity of interest that necessitates the use of an instrument for completion (e.g., piece of paper to draw on or cut; bowl of pudding or soup); hold the instrument out of the child's reach and wait.
16. Engage the child in an activity of interest that necessitates the use of an instrument for completion (e.g., pen, crayon, scissors, stapler, wand for blowing bubbles, spoon); have a third person come over and take the instrument, go sit on the distant side of the room while holding the instrument within the child's sight, and wait.
17. Wave and say "bye" to an object upon removing it from the play area. Repeat this for a second and third situation, and do nothing when removing an object from a fourth situation. These four trials should be presented following four consecutive temptations above.
18. Hide a stuffed animal under the table. Knock, and then bring out the animal. Have the animal greet the child the first time. Repeat this for a second time and third time, and do nothing when bringing out the animal the fourth time. These four trials should be interspersed with the temptations above when presented.

Coggins et al. (1987) used the following elicitation techniques:

1. For requesting: Each child is presented with a number of toys which cannot be operated without the clinician's assistance. Objects include:
 - a) wind-up toys with removable keys
 - b) battery-operated radio controlled car
 - c) plastic jars with screw-on lids

The objects are played with for a period of time and then either disabled or placed in plastic jars. The clinician waits for the child to request assistance of either the parent or the clinician. Each child is presented with five different opportunities.

2. For commenting: The examiner presents the child with a toy box with 5 toys; four are new toys and one is his which his mother has brought to the session without the child knowing it. The child is encouraged to reach into the box and take out the toys one at a time. He is allowed to play with the toy for 30 seconds and then an attempt is made to elicit the name of the toy.

Little evidence exists in the literature to support the use of any particular elicitation techniques. Coggins et al. (1987) compared elicited vs. low structure in children between 9 and 24 months. The results are shown below:

| Number Of Communicative Intents Elicited Under Certain Conditions | | | | |
|---|----------|---------|---------------|---------|
| | Elicited | | Low Structure | |
| Months | Comment | Request | Comment | Request |
| 9 | 0 | 0 | 1 | 0 |
| 12 | 8 | 10 | 23 | 1 |
| 15 | 9 | 27 | 26 | 4 |
| 18 | 20 | 30 | 33 | 3 |
| 21 | 30 | 33 | 31 | 2 |
| 24 | 32 | 32 | 35 | 2 |

Findings suggest that it is difficult to elicit communicative intent in children less than 12 months of age. Elicited responses appear better for requests.

Definitions of Communicative Intent Terms

Coggins (1988) used the following communicative intents with the examples as shown:

1. Commenting: An intentional behavior that directs the listener's attention to an object or the movement of an object identified by the child.
 - a) Gestural/vocal
 - i) Extends arm to show entity already in hand
 - ii) Picks-up an entity and immediately shows it to an adult
 - iii) Points to, looks towards, picks up, involved with or approaches an entity
 - b) Verbal
 - i) Extends arm to entity already in hand and produces word or word combinations
 - ii) Picks-up an entity and immediately shows it to an adult and produces a word or word combinations
 - iii) Points to, looks towards, picks up, involved with or approaches an entity and produces a word or word combinations
 - iv) Produces a word or word combination that refers to an entity not existent in the immediate environment.

Wetherby, Cain, Yonclas, & Walker (1988) present the following operational definitions:

1. Request object--acts used to demand a desired tangible object
2. Request action--acts used to command another to carry out an action
3. Protest--acts used to refuse an undesired object or to command another to cease an undesired action
4. Request social routine--acts used to command another to commence or continue carrying out a game-like social interaction
5. Showing off--acts used to attract another's attention to oneself
6. Greeting--acts used to indicate notice of another's presence, or to signal the initiation or termination of an interaction
7. Calling--acts used to gain the attention of another, usually to indicate that a communicative act is to follow

8. Acknowledgment--acts used to indicate notice of another person's previous statement or action; involves the child's focusing attention on or shifting attention to the interaction
9. Request permission--acts used to seek another's consent to carry out an action; involves the child carrying out or wanting to carry out the action
10. Comment--acts used to direct another's attention to an entity or event
11. Request information--acts used to seek information, explanations or clarifications about an entity, event or previous utterance; includes wh-questions and other utterances with a rising intonation contour
12. Clarification--acts used to clarify the child's previous utterance; may be unsolicited or solicited by the listener

Dore (1974) used the following categories to describe Early Communicative Intents.: (These were used when utterances consist of a single word or a single prosodic pattern with the function to convey the child's intention before he acquires sentences.)

1. Labeling: A word or words that functions as a label produced while attending to an object. The child does not address the adult or wait for a response. Child looks at a dog and says "goggie."
2. Repeating: A word, words, or prosodic pattern that repeat part of the adult utterance and are produced while attending to the adult utterance. The child does not address the adult or wait for a response. The mother says. "Do you want some milk?" The child says, "Milk."
3. Answering: A word that responds to an adult question and is produced while attending to an adult utterance. The child addresses the adult but does not necessarily wait for a response. The child may use gesture. The mother says, "What's in there?" The child says, "Cookie."
4. Requesting Action: A word that functions as a request for an action and is produced while attending to an object or event. The child addresses the adult and waits for a response. The child may use gesture. The child reaches out to his mother with both arms and says "a". The gesture indicates, "Pick me up."
5. Requesting Answer: A word that functions as a request for an answer. The child addresses the adult and waits for a response. The child may use gesture. The child holds up a cow and says to the mother, "Moo?"
6. Calling: A word or words that are used to obtain another's attention. The child addresses the adult and waits for a response. The child is waking up from a nap and says, "Mama."
7. Greeting: A word used to mark arrival or leave-taking and is produced while attending to an adult or an object. The child hears the door opening and says, "Dada."
8. Protesting: A word that expresses disapproval of or dislike for an object or action and is produced while attending to an adult. Mother attempts to wipe child's nose. The child pushes the mother's hand away and says, "No!"
9. Practice: A word that is not contingent upon preceding utterances and is produced while attending to an object or adult. This is a catch-all category.

In a later study, Dore (1977) used the following categories:

1. Performs Requestives - The child solicits information, actions or acknowledgement.
 - a) Information Request (Yes-No) - The child asks the examiner to affirm or negate a statement that he has made.
 - b) Information Request (Wh Questions) - The child seeks information through asking a Wh question.
 - c) Action Request - The child asks the examiner to perform an action.
 - d) Permission Request - The child asks permission to do something.
 - e) Rhetorical Request - The child asks a question just to make certain you are attending and then goes ahead.
2. Responds - The child interacts appropriately with a comment or questions made by another person.
 - a) Yes-No Answer - Answers a yes-no question asked by another with an appropriate response.
 - b) Wh-Question Answer - Answers a wh-question with an appropriate response.
 - c) Compliance - Performs appropriately an action requested by another.
 - d) Agreement - Agrees with or denies a statement made by someone else.
 - e) Qualification - Provides clarification of a statement made by another person.
 - f) Acknowledgement - Gives recognition to a statement or question made by another person such as "uh-huh".
3. Description - The child represents an observable or verifiable aspect of context.
 - a) Identification - The child labels an object, event or person.
 - b) Possession - The child indicates who owns or temporarily has a particular object.
 - c) Event - The child represents the an event in his description.
 - d) Properties - The child talks about the characteristic of an object or event.
 - e) Location - The child talks about the location of an object or event.
4. Statement - The child expresses beliefs, attitudes, emotion or reasons for something.
 - a) Internal Report - The child expresses and internal state (emotion or sentiment).
 - b) Evaluation - The child expresses attitudes, impressions, judgements, etc.
 - c) Attributing - The child expresses how he believes another individual feels. This is the same as internal report but deals with other individuals as opposed to self.
 - d) Rule Ordering - The child expresses conventional procedures, facts, etc.
 - e) Explanation - The child reports the reason, cause or motivation for an act, or predicts future state of affairs.
5. Performatives - Accomplishes something by saying it.
 - a) Role Playing - Pretending or doing fantasy.
 - b) Protesting - Objects to a previous behavior done by someone.
 - c) Jokes - Using humor in communication.
 - d) Game Markers - Initiates, continues or ends a game.
 - e) Claims - Establishing the child's rights.
 - f) Warnings - States what they will do if something doesn't happen.
 - g) Tease - Annoys or provokes intentionally.
6. Conversational Devices - Regulates conversation.
 - a) Attention Getter - Purposely getting someone to attend to you.
 - b) Boundary Marker - Initiating or ending a conversation.
 - c) Politeness Marker - Uses thank you and please type words.
 - d) Returns - Acknowledges or fills in after the statement of another.

7. Miscellaneous

- a) Exclamations - Statements of surprise or amazement.
- b) Repetition - Imitates what has been said by the previous speaker.
- c) Place Holding - Using sounds or words to take a turn, i.e., 'uh,uh' or 'mmm', etc.

Three checklists are provided that can be used to summarize and report findings.

Name of Child: _____ Date of Evaluation: _____

Communicative Intent Evaluation
Wetherby, Cain, Yonclas, & Walker (1988)
(For Children Ages 12 – 24 Months)

| Intent | Utterance Number | Total Number of Utterances |
|------------------------------|------------------|----------------------------|
| Behavioral Regulation | | |
| Request Object | | |
| Request Action | | |
| Protest | | |
| Social Interaction | | |
| Request Social Routine | | |
| Showing Off | | |
| Greeting | | |
| Calling | | |
| Acknowledgement | | |
| Request Permission | | |
| Joint Attention | | |
| Comment | | |
| Request Information | | |
| Clarification | | |
| Discourse Structure | | |
| Initiated | | |
| Respondent | | |
| Mode of Communication | | |
| Gestural | | |
| Vocal | | |
| Verbal | | |
| Gestural-Vocal | | |
| Getural-Verbal | | |
| Syllable Shape | | |
| Nontranscribable | | |
| Monosyllables – V | | |
| Monosyllables - VC | | |
| Multi-syllables - V | | |
| Multi-syllables - VC | | |

Supporting Data

| COMMUNICATIVE FUNCTION | PRELINGUISTIC STAGE | | ONE-WORD STAGE | | MULTIWORD STAGE | |
|---------------------------|------------------------|-------|-------------------|-------|--------------------|-------|
| | Mean | SD | Mean | SD | Mean | SD |
| Behavioral Regulation | | | | | | |
| Request Object | 5.81 | 5.28 | 9.78 | 11.79 | 13.41 | 6.41 |
| Request Action | 25.19 | 15.88 | 26.33 | 12.43 | 19.11 | 5.94 |
| Protest | 4.74 | 5.08 | 5.53 | 9.53 | 11.11 | 6.54 |
| Total | 35.74 | 12.58 | 41.63 | 13.84 | | |
| Social Interaction | | | | | | |
| Request Social Routine | 7.04 | 6.82 | 10.53 | 7.53 | 1.12 | 1.76 |
| Showing Off | 7.11 | 5.81 | 6.25 | 8.24 | .51 | .79 |
| Greeting | 1.93 | 2.31 | 2.57 | 3.39 | 3.42 | 3.95 |
| Calling | 0 | | 0 | | .13 | .35 |
| Acknowledgement | 0 | | 0 | | 3.24 | 3.21 |
| Request Permission | 0 | | 0 | | 1.55 | 1.52 |
| Total | 16.09 | 9.80 | 19.35 | 9.61 | 37.74 | 10.26 |
| Joint Attention | | | | | | |
| Comment | 48.98 | 11.69 | 39.18 | 13.44 | 37.74 | 10.26 |
| Request Information | 0 | | 0 | | 4.17 | 4.41 |
| Clarification | 0 | | 0 | | 4.42 | 2.97 |
| Total | 48.98 | 11.69 | 39.18 | 13.44 | 37.74 | 10.26 |
| Discourse Structure | | | | | | |
| Initiated | 55.79 | 10.19 | 68.39 | 12.14 | 66.80 | 8.53 |
| Respondent | 44.20 | | 31.61 | | 33.20 | |
| Communication Means | | | | | | |
| Gestural | 34.86 | 18.56 | 28.12 | 17.21 | 10.18 | 9.52 |
| Vocal | 22.70 | 16.59 | 12.68 | 15.26 | 5.60 | 4.21 |
| Verbal | 1.02 | 3.39 | 2.25 | 2.64 | 30.82 | 10.39 |
| Gestural-Vocal | 40.12 | 14.30 | 44.62 | 20.53 | 10.20 | 8.74 |
| Gestural-Verbal | 1.30 | 4.07 | 12.32 | 15.68 | 43.20 | 22.30 |

Name of Child: _____ Date of Evaluation: _____

Communicative Intent Evaluation
Dore, 1974
(For Children Ages 2 to 4 Years)

| Intent | Utterance Number | Total Number of Utterances |
|-------------------|------------------|----------------------------|
| Labeling | | |
| Repeating | | |
| Answering | | |
| Requesting action | | |
| Requesting Answer | | |
| Calling | | |
| Greeting | | |
| Protesting | | |
| Practicing | | |

Supporting Data

| PERCENTAGE OF TOTAL UTTERANCES BY VARIOUS INTENTS BY TWO CHILDREN | | |
|--|---------|---------|
| Communicative Function | Child 1 | Child 2 |
| Labeling | 34.6 | 17.5 |
| Repeating | 39.5 | 28.7 |
| Answering | 14.8 | 10 |
| Requesting action | 7.4 | 26.2 |
| Requesting Answer | | |
| Calling | 0 | 11.2 |
| Greeting | 1.2 | 6.2 |
| Protesting | 2.5 | 0 |
| Practicing | 0 | 0 |

Name of Child: _____ Date of Evaluation: _____

Communicative Intent Evaluation
(Dore, 1977)
(For Children Ages 4 and Older)

| Intent | Utterance Number | Total Number of Utterances |
|---------------------------------|------------------|----------------------------|
| Requestives | | |
| Yes-No Information Request | | |
| Wh-Question Information Request | | |
| Action Request | | |
| Permission Request | | |
| Rhetorical Request | | |
| Responds | | |
| To Yes-No questions | | |
| To Wh-Questions | | |
| Compliance | | |
| Agreement | | |
| Qualification | | |
| Acknowledgement | | |
| Description | | |
| Identification | | |
| Possession | | |
| Events | | |
| Properties | | |
| Location | | |
| Statement | | |
| Rule Ordering | | |
| Evaluation | | |
| Internal Reports | | |
| Attributing | | |
| Explanation | | |
| Performatives | | |
| Role Playing | | |
| Protesting | | |
| Jokes | | |
| Game Markers | | |
| Claims | | |
| Warnings | | |
| Tease | | |
| Conversation Devices | | |
| Attention Getter | | |
| Boundary Marker | | |

| Intent | Utterance Number | Total Number of Utterances |
|-------------------|------------------|----------------------------|
| Politeness Marker | | |
| Returns | | |
| Miscellaneous | | |
| Exclamations | | |
| Repetitions | | |
| Place Holding | | |

Conversation

| CONVERSATIONAL DEVELOPMENT IN CHILDREN | | | | | |
|---|--|---|--|--|---|
| AGE | TOPIC SELECTION | TURN TAKING | TOPIC MAINTENANCE | REPAIR | ASSERTIVENESS |
| 2 | | | | | |
| 3 | | | Sustains topic 20% of the time | Repetition most often used for repair from 3 years old to 9 years old | High number of inappropriate responses when stacked questions are asked |
| 4 | | | Sustains topic explaining how something works, but not in a dialogue | | |
| 5 | Introduces about 23 topics in a 15 minute conversation Reintroduces about 23 topics in a 15 minute conversation | Topic maintained for 5 turns Up to 2 turns are repetitions | Topics abruptly changed with minimal shading | Responds to request for clarification 80% of the time | Difficulty performing stacked questions Provided incorrect responses to the 1 st and 2 nd question and then responded correctly on the 3 rd |
| 6 | | | | May elaborate some elements in repetition | |
| 7 | | | | Add information significantly more than at younger ages but repetition still most common | Significant addition of assertiveness |
| 8 | Topics tend to be concrete | | | | |

| CONVERSATIONAL DEVELOPMENT IN CHILDREN | | | | | |
|---|--|------------------------------|--|---|----------------------|
| AGE | TOPIC SELECTION | TURN TAKING | TOPIC MAINTENANCE | REPAIR | ASSERTIVENESS |
| 9 | Introduces about 23 topics in a 15 minute conversation Reintroduces about 20 topics in a 15 minute conversation | Topic maintained for 6 turns | Increase in shading and rarely are their abrupt changed in topic | Clearly provides additional input for listen Capable of addressing perceived source of a breakdown in communication by defining terms, providing more background in context and talking about process of conversational repair | |
| 11 | | | Sustained abstract discussion emerges | | |
| Adult | Introduces about 13 topics in a 15 minute conversation Reintroduces about 6 topics in a minute conversation | Topic maintained for 10 turn | Uses shading to change topic consistently | Detects linguistic anomalies almost instantly | |

Conversational Checklist

Student: _____ Grade: _____ Date: _____

Observer: _____ Position: (Circle one): Parent Teacher SLP

The conversational Skills Checklist may be used as a Pre/Post Test to determine the following:

- A student's strengths in using language skills in Conversation
- A student's needs for developing language skills in Conversation
- A student's progress toward proficiency of language skills in Conversation

Directions for Observer: Mark (X) the student's frequency of use or proficiency for each of the skills listed on the chart. Base your responses on what has been observed at home (Parent), in the classroom (Teacher), or during assessment and/or therapy sessions (SLP).

Codes: NY = Not Yet R = Rarely S = Sometimes U = Usually P = Proficient

| CONVERSATIONAL SKILL | PROFICIENCY CODES | | | | |
|--|-------------------|---|---|---|---|
| | NY | R | S | U | P |
| Opening Section: | | | | | |
| • Secures listener's attention | | | | | |
| • Initiates topic of conversation | | | | | |
| • Asks permission before touching or borrowing other people's things | | | | | |
| • Makes eye contact with others | | | | | |
| • Uses friendly body language | | | | | |
| Topic Selection: | | | | | |
| • Chooses interesting topics of conversation | | | | | |
| • Chooses topics appropriate to situation | | | | | |
| Turn-Taking: | | | | | |
| • Takes turns in conversation | | | | | |
| • Waits to share at appropriate | | | | | |
| • Invites others into conversation | | | | | |
| • Relinquishes turn to talk | | | | | |
| Topic Maintenance: | | | | | |
| • Can sustain topic through several turns | | | | | |
| • Asks appropriate questions that are on topic | | | | | |
| • Repetition is used or requested | | | | | |
| • Can close or switch topics when appropriate | | | | | |
| Repair: | | | | | |
| • Repairs message when the listener doesn't understand | | | | | |
| • Repairs message when the speaker is not | | | | | |

| CONVERSATIONAL SKILL | PROFICIENCY CODES | | | | |
|---|-------------------|---|---|---|---|
| | NY | R | S | U | P |
| understood | | | | | |
| Quantity: | | | | | |
| • Talk is brief and to the point in conversation | | | | | |
| • Provides enough information to the listener (not too much or too little) | | | | | |
| • Shares personal success, but avoids bragging | | | | | |
| • Ceases talking when listener sends cues that sufficient information has been received | | | | | |
| Quality: | | | | | |
| • A good listener when others are speaking | | | | | |
| • Remembers to thank others for help | | | | | |
| • Expresses sympathy when other people are hurting | | | | | |
| • Considers how words affect others before speaking | | | | | |
| Manner: | | | | | |
| • Keeps messages of conversation organized (tells things in order) | | | | | |
| • Focuses on most important details, clearly and concisely | | | | | |
| • Uses cohesion (links ideas temporarily and/or casually) | | | | | |
| Relation: | | | | | |
| • Responds appropriately to other's messages | | | | | |
| • Asks for clarification of messages from other people | | | | | |
| • Elaborates on a topic when appropriate | | | | | |
| • Disagrees without disrupting | | | | | |

Comments of the Observer:

Rating Pedantic Speaking Style

Based on: Ghaziuddin and Gerstein (1996)

Definition of pedantic speaking style: The pedantic speaker conveys more information (quantity and/or degree of specificity) than the topic and context of the ongoing conversation demand. Listener expectations of contextual relevance are not met. Sentence structure may have the formality, and vocabulary display the erudition associated with written rather than spoken language. The speaker's conversational turns resemble rehearsed monologues rather than contributions to a jointly managed conversation. Articulation may be precise and intonation formal. (Note: The presence of restricted interests per se cannot be considered pedantic; nor are poor conversational skills alone sufficient to determine that one is a pedantic speaker.)

Procedure: This rating scale should be applied to a sample of conversation consisting of at least 50 turns at talk. The sample will be more useful if gathered over several occasions, or after you have become somewhat familiar with the client and can establish an informal conversational atmosphere.

You may choose to give the checklist to a parent or teacher to fill out as well. Items are worded in a fairly non-technical manner to facilitate this. Seeking an additional opinion may prove useful when the client provides few opportunities for conclusive direct observation by the clinician. **The Summary and Rating page is for the clinician's use and not intended for the parent or teacher.**

Student Name: _____ Date: _____
Completed By: _____ School: _____

Checklist of Conversational Behaviors (Pedantic Speaking Style)

Please judge the following conversational characteristics in your student or child, comparing him/her to other children of the same age and ability level. Please respond to each item using the following scale, noting your score on the line provided.

0 = No 1 = Somewhat, Occasionally 2 = To a great degree, Often

___ 1. C (child) offers more information than the conversational partner (henceforth P) expects to hear, given the topic and conversational context.

___ 2. C mentions more factual details than P expects to hear in this context, appearing to value accuracy and specificity. Details may include technical terms, specific rather than generic names of things, dates, measurements, etc.

___ 3. C's utterances have a rehearsed quality, containing few revisions or hesitations (doesn't stop and change a word or start the sentence over in a different way; few "um's" or silent pauses). Utterances sound as smooth as if they were written out or prepared in advance.

___ 4. C's utterances have an adult quality, with syntax (sentence structure) and/or vocabulary being more sophisticated and sounding more learned than one would expect at his/her age.

___ 5. C corrects factual or grammatical errors in his/her or P's speech.

___ 6. C does not adjust his/her speaking style to the age and social role or status of P. C is unaware of P's reactions in conversation and fails to accommodate to or solicit them (e.g. failing to notice lack of interest, not communicating a need for P's response before providing additional information).

___ 7. C's articulation (pronunciation) is markedly precise. Intonation (the melody of speech, emphasis on certain syllables) stresses key information rather than conveying C's attitude for feelings.

___ 8. C has a few favorite topics in conversation (perhaps areas of special interest). When discussing these, C's utterances are predictable and unchanging from conversation to conversation.

Comments and examples (optional):

Summary and Rating

Criteria for rating:

Score of

- 0 – 4 = not pedantic
- 5 – 7 = mildly pedantic style
- 8 and above = pedantic style

Total Score: _____

Rating: _____

Comments: (including examples, parent's remarks)

Informal Assessment of Oral Narrative Abilities

The Purpose of Using Oral Narratives

Oral narratives are useful in analyzing the language of children since narratives are typical of the form and type of language used in school.

Types of Oral Narratives

There are three major types of narratives which children will be expected to master in order to have academic success. They are: Fictional Oral Stories, Personal Oral Narratives and Expository Oral Narratives (Scripts).

Fictional Oral Stories: Relate fictionalized events that include animate characters attempting to carry out a goal. The stories can relate events in the past, present and future that are not real.

- *Ex: fairy tales, fables, ghost stories, bedtime stories made up by parents*

Personal Oral Narratives: Relate non-fictionalized events that are usually told to a listener who was not part of the event. Personal narratives can further be subdivided into the following types:

- a) **Recounts:** Are non-fictionalized shared events that are prompted by another person to share. They are generally told in past tense and are considered to be unique experiences.

Ex: Tell daddy what we did today at the zoo, or share & tell

- b) **Accounts:** Are non-fictionalized personal events that are spontaneously told to another person who typically was not part of the event; they are also considered unique events.

Ex: the time you fell off your bike, the time you found a dog, or your first recital

- c) **Event casts:** Are non-fictionalized descriptions of ongoing activities, reporting factual events and directing others to play roles.

Ex: broadcasting ongoing events during pretend play, saying how to play roles in "house"

Expository Oral Narratives/Scripts: The primary purpose of expository narratives/scripts is to instruct or present information.

Scripts: Are verbal accounts about events that usually or routinely happen; also known as procedural discourse. They are mostly told in present tense, use second person pronouns (you), and connectives such as *and* or *and then*.

Ex: What to do at a restaurant, how to make a sandwich, or what do we do at school?

There are three purposes of texts, they are: Persuasive, Informative and Expressive. There are three modes of text, they are: Narrative, Descriptive, and Classificatory. For purposes of this section the above have been combined into the following types of texts:

- a) **Persuasive Description:** A choice is made, reasons are presented by describing ideas to persuade and influence an audience to support that choice.
- b) **Persuasive Classification:** Views are classified, a choice is presented and reasons for that choice are given by using characteristics of the objects or ideas to persuade an audience.

- c) Informative Description: The speaker determines the most effective means of organizing information to describe an object or event.
- d) Informative Narrative: The speaker organizing information by sequencing event in a certain order in order to provide information.
- e) Informative Classification: The speaker uses information by classifying characteristics of the objects or ideas in order to provide information.
- f) Expressive Narrative: The speaker expresses feelings and thoughts are expressed in a sequential manner.

Fictional Oral Narratives

Elicitation of Fictional Oral Narratives

This next section will address how to elicit and collect oral narratives, written narratives, and conversational discourse. There are several ways to elicit narratives, the ones provided below are the most common methods used by researchers to collect narratives.

The construction of narratives places more demand on the speaker and is considered to be more difficult than story retelling (McFadden & Gillam, 1996; Milosky, 1987; Ripich and Griffith, 198; Roth, 1986). Research continues to support that story retelling is less demanding on the speaker than narratives. Currently, most criterion-reference tests and standardized tests utilize retelling methods as their elicitation method. Thus we will focus heavily on this method.

Narrative Sampling Procedures

You must consider the types of narrative you want to elicit and how structured or direct the request will be. Narratives may either be spontaneous (generation, construction, telling) or occur from a planned procedure (retelling). There are three major factors to consider when eliciting a story generation and story retelling narrative. They are:

1. Amount of structure provided by the stimulus
2. Content of the stimulus
3. Nature of the presentation

Structure: Structure deals with the amount of information that is provided to the child by the stimulus that the clinician presents. For the purposes of this discussion we will consider three levels of structure although in reality, degree of structure falls along a continuum.

1. Unstructured: The child is given limited information about what is happening and must draw the narrative almost totally from his own experiences. Examples of unstructured presentations would be:

- (a) No stimulus
- (b) Memorable event – Tell me about something that happened to you which you can remember.

- (c) Doll, family, vehicles, or animals. The child is given the objects and asked to tell a story about them.

4) Partially structured

- a. Doll house with kitchen furniture and several dolls
- b. Single Picture
- c. Formulating a story from poster pictures.
- d. Story Starter
 - i. Alice Story: Once there was a little girl named Alice who lived in a house near the ocean.
 - ii. Fox Story: Once there was a big grey fox that lived in a cave near the forest.
 - iii. Alan Story: Once there was a boy named Alan who had many different kinds of toys.
 - iv. Once upon a time, two friends were in a deep and dark cave.
 - v. One day a pilot was flying a plane through the towering mountains.
 - vi. Once there was a family who were in the hot desert
- e. Use of contextual situations to probe for problem-solving and planning abilities (Westby, VanDongen and Maggart, 1989). Examples are:
 - i. What would you do if you wanted to go to your friend's house but your mother has already told you to come directly home from school?
 - ii. Tell me a story about a girl to whom this happened.
 - iii. What might happen so that she couldn't go?
 - iv. If this happened what could the girl do to still be able to go? How could you change the story to allow this?

5) Highly structured

- a. Sequence Cards
- b. Wordless picture books - Wordless picture books can be shown to the child to offer a basic story line. Probe for narrative ability with questions such as:
 - i. What is happening in this book?
 - ii. How do the characters feel? What are they thinking?
 - iii. Why do the characters feel the way they do? Why do the events occur as they do?
 - iv. What will happen in the future if this story were to continue?
- c. Videos
- d. Story retelling - In this situation, the child is told a story, either a familiar one or an unfamiliar one and is then asked to retell it. The evaluator needs to consider whether to have the child retell the story to the examiner, in which case the child may not feel the need to provide all of the detail since he is aware that the examiner already knows the story or whether the child is to tell the story to an unfamiliar person.

- 6) **Content of Stimuli:** This deals with which information is provided in the stimulus which the child receives to help him do the story. For example, if you say tell me a story about a man who went to the moon, you have provided the character and the place. Thus, this would not be scored as something that the child provided. Things often provided in the content of the stimuli are:

- 7) Setting
 - a. Place of Action
 - b. Time of Action

- 8) Characters
 - a. Family members
 - b. Fantasy figures
 - c. Animals
 - d. Occupational roles

- 9) Events
 - a. Series of actions
 - b. Actions towards goals
 - c. Actions to overcome obstacles

- 10) Themes
 - a. Aggression
 - b. Loss
 - c. Nurturance
 - d. Achievement
 - e. Competition
 - f. Adventure

- 11) **Nature of the Presentation:** An example of factors to consider in the nature of the presentation can be exemplified by looking at the presentation of story retelling. In presenting a story retelling task, there are several factors in the nature of the presentation that can affect the retelling. Examples might be:

- 12) Story Selection
 - a. Length
 - b. Vocabulary Level
 - c. Structure
 - d. Type of Schema
 - e. Predictability
 - f. Familiarity

- 13) Story Presentation
 - a. Mode of presentation – Are pictures, a wordless story book, no pictures used
 - b. Number of presentations – How many times is the child told the story

- 14) Method of Responding
 - a. Shared vs. unshared knowledge – Does the child tell the story to the person who told it to him or does he tell it to someone who he assumes does not know the story.
 - b. Immediate vs. delayed recall – How long is the time between when the child hears the story and tells the story?

Instructions given to the child or Prompt: The instructions and elicitation methods provided to a child should always be documented in your collection

Suggestions for Eliciting Fictional Oral Stories

Fictional Oral Narratives: The request for a fictional story from an elementary school-age child and an adolescent is considered appropriate. Fictional stories are more suitable to analyze story grammar and story structure. There are two types of fictional narratives that can be elicited: story generation or story retelling.

Story Generation: Occurs when a student is asked to produce a narrative of events. Story generation is considered to be more difficult to produce than a story retelling (Liles, 1993). The creation of a story involves formulating ideas, planning and organizing ideas, and encoding and expressing them into language (Roth & Spekman, 1989).

Story Retelling: Occurs when a student is asked to re-produce previous events. Story retelling allows for better control over the narrative length and complexity (Liles, 1993). Since the elicitor is aware of the targeted responses scoring and analyzing the narrative is easier.

- Do you know a ghost story?
- What's your favorite bedtime story?
- Any fairy tales (*Cinderella, Beauty and the Beast, Snow White, Goldilocks*)
- Any fables (*The Ugly Duckling, The Little Mermaid, The Tortoise and the Hare*)
- Mercer Mayer Wordless picture books (*Frog on His Own, One Too Many*)
- Movies (*The Lion King, Finding Nemo*)
- Cartoons (*Dora*)
- Retell a picture sequence (the "*The Renfrew Bus Story*")

Elicitation Procedures for Story Generation and Story Retelling Using Different Stimuli

Single Picture: Generally produce narratives that describe the scene or actions, but does not include character, and a beginning, middle and end.

Directions:

Provide a picture of a scene or the examiner could also present the child with several different pictures and allow the child to pick one as this might suggest a story.

Prompt:

"Use your imagination and think about...what happened before, what happened in the picture, and what happened afterwards. Tell me a story".

No Visual Stimuli (context not shared)

- "I want you to make up a story and tell it to me. It can be about anything you'd like. Take as much time as you need. Start whenever you want."
- "Look at this picture. I would like you to make up a long story about it. Don't just describe the picture, but make up a story about it."

Visual Stimuli (context is shared between the speaker and listener)

- "I want you to look at this picture (these pictures) and make up a story about it (them). Take as much time as you need and then tell the story to me. Start whenever you want."

Picture sequence: Typically includes a plot, structure and sequencing.

Directions:

Method 1: Review all pictures with the child and then start from the beginning or
Method 2: Have the child tell you the story as he/she is viewing picture by picture (research has not suggested one is more effective than the other).

Prompt:

Method 1: “Tell me a story that goes with these pictures.” or “Make-up a story that goes with these pictures.”

Method 2: “Tell me what do you think is happening here?”

- Tip: If a child has stopped narrating, or a short narrative was provided, the following verbal prompts are suggested (Strong,1997; Hedberg and Westby, 1993):
 - Describe the picture and add a tag question, such as “The frog is not going with them, why do you think so?”
 - Then, ask direct questions that help the child recognize events and problems, such as “Wow, he looks sad. Why do you think he looks so sad?”
 - “Anything else you want to tell me?”
 - Repeat the child’s last utterance with question like intonation “The frog god mad?”
 - Give lots of verbal praise “You are telling a great story”
 - Neutral responses “and then what, uh-huh, what’s going on here?”

Movies: If a child has told a previously seen movie it is considered a form of **story generation**, or known as “remote retelling”. If a child has viewed a movie or a clip and is immediately asked to retell the information it is considered a form of **story retelling**. If using a silent movie or cartoon it is considered a story generation, if there is audio then it is considered a story retelling. *Be aware some movies are better than others as they have more problem-solving plots.

Objects as Props: Using objects as props in story telling tasks may result in less story organization, but provide necessary scaffolding for some children (Hedberg and Stoel-Gammon, 1986).

Appropriate Sampling Methods for Elicited Narratives by Grade Level

Depending on the age of the child, different elicitation procedures should be used. The following table shows the recommended ages and methods of elicitation for fictional narratives:

| GRADE | ELICITATION METHOD RECOMMENDED |
|--------------|---|
| Preschool | Story retelling - Visuals should be used with story retelling |
| K-3 | Story retelling with visual stimuli, context shared; story generation with visual stimuli are suggested. By 3 rd grade, should use both oral and written |
| Grades 4-6 | Both story generation and story retelling with or without visual stimuli, context shared or not shared; both oral and written |
| Grades 7-9 | Both story generation and story retelling with or without visual stimuli, context shared or not shared; both oral and written |
| Grades 10-12 | Both story generation and story retelling, without visual stimuli, context not shared; both oral and written |

Hughes, D., McGillivray, L., and Schmidek, M. (1997). *Guide to Narrative Language Procedures for Assessment*. Eau Claire, WI: Thinking Publications.

It is suggested that at least 3 different samples be collected. More may be needed if there are great differences in the three examples collected.

Transcribing, Segmenting and Analyzing Stories

Analyses Procedures for Narratives

1. Upon deciding what type of narrative you want to collect gather all your needed materials (book, paper, pencil, tape, tape-recorder, score sheet, T-Unit sheet)
2. Record the samples on audio-tape
3. Transcribe the narrative, the following rules have been suggested by Strong (1997):
 - All fluent utterances
 - All ungrammatical utterances and abandoned utterances
 - Self-corrections but put in parenthesis (revisions/ false-starts, repetitions, and fillers)
 - Pauses that are less than 5 seconds write (.), if it is longer than 5 seconds write (...)
 - Asides (comments that are not part of the actual story “oh I know what happened”)
 - Mark unintelligible words by (x)
 - Examiner utterances are noted by []
 - If it is difficult to segment sentence fragments into C-units then use the contour ending intonation of a sentence or a pause was clearly indicated
4. Divide the sample into Communication (T-Units) (See Informal Language Samples)
 - T-Unit= one main clause include subject/noun phrase + predicate/verb phrase, with it's subordinate clause (if there is one)
 - A main clause can stand alone “independently” and be grammatically correct
 - A subordinate clause cannot stand alone, it “depends” on the main clause

Separate Coordinating Conjunctions:
and (then), and, or, but, so

Do not separate Subordinating Conjunctions:
Early: *because, that, when, who*
Later: *after, before, so (that), which, although, if, unless, while, as how, until, like, where*
5. Analyze the **macrostructure** of the narrative. The entire narrative is examined for its structural characteristics. It addresses the degree of organization and the type of story grammar elements used. There are four ways to analyze macrostructure, they include:
 - Applebee's Six Levels (1978) is useful for analyzing fictional and some personal stories
 - Episodic Analysis utilizes Stein and Glenn's (1979) for analyzing fictional stories
 - High Point Analysis is useful for analyzing personal narratives
 - Macroanalysis is useful for analyzing Scripts
6. Analyze the **microstructure** of the narrative. This includes the intricacies of the story, the little details that make it really interesting and complex, such as:
 - Cohesion Analysis linguistic markers (pronouns, articles, prepositions, morphology-morphemes, and cohesive ties)
 - Grammatical Unit Analysis (See Informal Assessment of Syntax)
 - Lexical Diversity: richness of vocabulary, literary language style (conjunctions, elaborated noun phrases, mental and linguistic verbs, adverbs that convey tone, adjectives)

Analysis of the Macrostructure

Applebee's Six Level Analysis (1978)

Applebee (1978) looked at two characteristics of narrative development, centering and chaining. Centering has to do with the story being set on a central theme; parts of a story cluster are around a central idea. However, when the story begins to develop a sense of time, such as temporal markers or logical order then it develops into chaining. The six levels below are considered to be in developmental order.

| Applebee's Six Level Analysis (1978) | | |
|---|--|---|
| Level | Characteristics | Example |
| Heap-Emerge at 2 years of age | <ol style="list-style-type: none"> 1) Things go together by chance 2) There are few links from sentence to sentence, no connection 3) There is no organization 4) Linked by chance 5) The syntax may be very repetitive | This doll and this car and this have this while broke. I wanna go into park. She want to play with toys. I want a cookie in there? |
| Sequence-Emerge at 2-3 years of age | <ol style="list-style-type: none"> 1) Objects are grouped by concrete and factual means 2) Superficially but arbitrary sequence in time 3) No visible causal links between events 4) There is repeated reference to some person, action, feeling, or place 5) Sentences tend to be connected with "and" or no conjunction is used | How do you like dogs? I like cats. I like horses too. I like my mommy. I like daddy. I like grandma. I like grandpa. That's all I can think of. |
| Primitive Narrative-Emerge at 3-5 years of age | <ol style="list-style-type: none"> 1) Grouped by practical experiences 2) They have a concrete core with surrounding attributes that compliment it 3) Links between events are shared situations 4) Inferences begin to be observed (the baby cries) 5) The events may appear causal but are not marked by causal words | The three pigs were sleeping. And then they woke up. And then they took a nap. Then they were tired. They wanted to eat. And then they went to take a nap. Then they wanted to see mommy. And then mommy was gone. And they went to sleep at their house. |
| Unfocused Chains-Emerge at 4.0-4.6 years of age | <ol style="list-style-type: none"> 1) Chaining now occurs. It is a series of temporally related events that lead directly from one to the next 2) There is no consistent center. Settings, characters, or types of actions tend to shift. 3) May lose its point and drift off 4) These are infrequent and only occurred in about 8% of all the samples. They are more common in the language of language delayed children. | First Daddy was going to make dinner. So he put it on the stove. And then he make pancakes. And daddy said "Come on". And then everybody ate. And the baby ate the food up. And then the baby started to cry. And the dog said "ruff". And the bear took it. And the bear made it for the baby. And the cat came and said "meow". |

| Applebee's Six Level Analysis (1978) | | |
|---|--|--|
| Level | Characteristics | Example |
| Focused Chains- Emerge at 5 years of age | <ol style="list-style-type: none"> 1) Concrete center which is usually a main character engaging in a series of temporally related events 2) Nothing abstract included to include a true concept 3) The center is still concrete as opposed to conceptual 4) There is no predicting of ending from the beginning. 5) Occurred in more than ½ 5 year-olds stories (Applebee, 1978) | Once there was a boy and a girl. They climbed up a tree. Then they fell down. And then they saw something coming. They thought it was a pickle. But it was a ghost. And the ghost climbed up the tree. And he fell right through the branches. And they saw something else came up from the ground. And it was a witch. |
| True Narratives- Emerge at 5 to 7 years of age | <ol style="list-style-type: none"> 1) A conceptual center now exists 2) A theme or moral evolves during the development of the story 3) Causal relationships are clearly stated, either implicitly or explicitly. 4) It is possible to predict from the beginning the way in which the story might end 5) 20% of 5 year-olds stories included this type of narrative (Applebee's, 1978) | Once there was a boy named Robert and a girl named Isabel. They went to the pet store and saw a little brown dog with white spots. They ran home to ask their mom and dad if they could buy it. Their parents said that they needed to feed it, give it water and play with it everyday. Robert and Isabel promised that they would that. So, the next day they went back to the store with their mom and bought the little brown dog. They called him "Spot". The End |

Hedberg and Westby (1993) suggested a series of questions which could be asked to help the evaluator determine the appropriate Applebee level. The Decision Making Matrix for Maturity Level will aid in identifying the child's Applebee's level.

| DECISION MAKING MATRIX FOR MATURITY LEVEL |
|--|
| Does the story have a center? No - Heap Yes - Next Question |
| Does the story have complementary links? No - Description Yes - Next Question |
| Does the story have consistent chaining? No - Primitive Narrative Yes - Next Question |
| Does the story have a concrete center and chaining? No - Unfocused Chain Yes - Next Question |
| Does story have conceptual center? Can the end be predicted from the beginning? No - Focused Chain Yes - Narrative |

Adapted from: Hedberg, N.L. & Westby, C.E. (1993). *Analyzing Storytelling Skills: Theory to Practice*. p. 90.

Normative Data (Applebee, 1978)

The following data gives some information about the general level at various ages.

| Percentage of Children's Stories at Each Structural Level | | | | | |
|---|------|------|------|------|-------|
| Plot Structure | Age | | | | |
| | 2 | 3 | 4 | 5 | Total |
| Heaps | 16.7 | 10.0 | 0.0 | 6.6 | 8.3 |
| Sequence | 43.3 | 20.0 | 23.3 | 3.3 | 22.5 |
| Primitive Narrative | 23.3 | 23.3 | 10.0 | 0.0 | 14.2 |
| Unfocused Chain | 0.0 | 6.6 | 10.0 | 16.7 | 8.3 |
| Focused Chain | 16.7 | 36.6 | 53.3 | 53.3 | 40.0 |
| Narrative | 0.0 | 3.3 | 3.3 | 20.0 | 6.7 |

Episodic Structure Analysis

Episode structure analysis looks at the structure of fictional stories. The structure we will use is a story grammar model as presented by Stein and Glenn (1979). The following table shows the components of story grammar and provides a brief description of each component.

| Stein & Glenn's Story Grammar Analyses (1979) | |
|---|---|
| Component | Description |
| Setting (S) | Where and When the story takes place; the character(s); and the social, physical, or temporal contexts in which the story occurs |
| Initiating Event (IE) | The situation or problem to which a character must respond; the initiating events may be of three types Natural occurrence. A change in the physical environment, usually not caused by animate beings - storms, floods, earthquakes. "A violent tornado appeared out of nowhere." Action. An activity by a character that provokes a response from another character. "The wizard waved his wand and the castle disappeared." Internal event. A character's perception of an external event (seeing or hearing) or change in physiological state. "The pigs heard the wolf at the door." |
| Internal Response (IR) | The psychological state (feeling, emotional response) of the character after the IE. "The big frog was jealous of the new baby frog." |
| Reaction (R) | Reference to the character's intended behavior. "King Graham decided to find the wizard." Could also be reference to the character's thoughts. "The big frog thought the boy wouldn't like him anymore." |
| Reaction: Internal Plan (P) | A character's strategy for attaining a goal. |
| Reaction: | A non-goal-directed behavior or action in response to the initiating |

| Stein & Glenn's Story Grammar Analyses (1979) | |
|---|---|
| Component | Description |
| Behavior (B) | event. "Jeremy threw down his hat when he realized he had not won the race." |
| Attempt (A) | What the character does to reach the goal. |
| Consequence (C) | The character's success or failure in achieving a goal. Natural occurrence. A change in the physical environment, usually not caused by an animate being. "The sun dried up the flood waters." Action. Physical activities carried out by animate characters that attain the goal. End State. The final state of the environment or characters. "The town was left in ruins." |
| Resolution/Reaction | The character's feelings, thoughts or actions in response to the consequence of attaining or not attaining a goal. This can also be internal state (RIS, "They lived happily ever after."), cognitive (RC, "He knew he had found a friend."), or Behavior (RB, "The Lone Ranger rode off into the sunset.") |
| Ending (E) | A statement announcing the conclusion of the story, summarizing the story, or stating a moral or general principle. "A good deed is always repaid." |

Taken from Hughes, McGillivray and Schmidek (1997). *Guide to Narrative Language: Procedures for Assessment*. Eau Clair, WI: Thinking Publications.

Story Grammar Development

1. The earliest story grammar component used appears to be Setting (S) information.
2. Initiating events are found in stories of children as young as three (3) years. By age four (4) the initiating event (IE) and setting (S) was required and by age five (5), some actions (A) and/or consequences (C) were required. This developmental progression of story grammar was supported by Peterson and McCabe (1983).
3. Peterson and McCabe (1983) found all children from ages 4-9 were capable of producing narratives that included the four basic parts of an episode. (S, IE, A, C)
4. The number of structures included in story telling also reportedly increased with age.
5. Stein and Glenn (1979) suggested the order of story grammar development for first and fifth graders.

| Components Of Story Grammar Remembered From Best To Least | |
|---|------|
| Component | Age |
| Setting | by 3 |
| Initiating Event | 3 |
| Consequence | 5 |
| Attempt | 5 |
| Reaction | 5 |

| | |
|--|--|
| Minor Setting and/or internal response or plan | |
|--|--|

6. Merritt & Liles (1987) compared the retelling of stories and the spontaneous telling of stories in 20 normal children from 9 to 12 years of age. The story generation was elicited by the examiner beginning the story and then asking the child to continue. The instructions were as follows:

"I am going to tell you the first part of a story and I want you to make up the rest of it. Take your time and think about what might happen next. Then, tell me a good story."

They then started a story by saying "One day a soldier was in a thick jungle." They found no change in ages over this time and thus combined the data.

| Components Of Story Grammar Told With Story Starters And Retelling | | | | |
|---|-----------|-----|---------|-----|
| Component | Retelling | | Started | |
| | Mean | SD | Mean | SD |
| Setting | 3.5 | 1.1 | 3.5 | 1.7 |
| Initiating Event | 4.6 | 1.3 | 5.2 | 3.0 |
| Internal Response | 3.1 | 1.3 | .08 | .06 |
| Consequence | 4.2 | 1.6 | 5.1 | 2.7 |
| Attempt | 4.8 | 1.4 | 4.0 | 2.5 |
| Reaction | 1.9 | 1.4 | .02 | .03 |

7. Merritt and Liles (1987) also looked at the number of clauses, number of complete episodes, number of incomplete episodes, and number of clauses per episode. The following table shows their results.

| Sentence Grammar Of Stories | | | | |
|--------------------------------|-----------|-----|---------|------|
| Component | Retelling | | Started | |
| | Mean | SD | Mean | SD |
| Number of Clauses | 28.0 | 7.3 | 21.4 | 11.4 |
| Number of Complete Episodes | 2.7 | 0.8 | 2.1 | 1.2 |
| Mean Number Incomplete Episode | 0.9 | 0.6 | 0.3 | 0.4 |
| Clauses per Complete Episode | 8.6 | 1.6 | 10.0 | 2.5 |
| Clauses per Incomplete Episode | 6.1 | 1.7 | 4.0 | 2.5 |
| Reaction | 1.9 | 1.4 | .02 | .03 |

8. In looking at the ability of these same children, Merritt and Liles (1987) looked at the ability of the students to answer the questions. The following table shows the responses to the questions under the retelling conditions.

| TYPES OF QUESTIONS ASKED | MEAN | SD |
|--------------------------|------|-----|
| Factual | 6.4 | 1.7 |
| Story Grammar Questions | 6.1 | 1.1 |

9. In terms of combining episodes, the following types of order is reported with the percentage shown in [] and ages shown in parenthesis.

Then (5-6) [50%]
 And [25%]
 Cause [16%]
 Embedded (11-12 years)

10. Jordon et al. (1991) found that the frequency of occurrence for the various joining of episodes was:

Then
 And
 Embedded
 Cause

11. The percentage of complete episodes provide by children varied as a function of age also. The following shows the mean (M) number of complete episodes and the standard deviation (SD) by age level

M = 69 SD = 24 for 11-12 olds
 M = 56 SD = 35 for 10-11 olds
 M = 50 SD = 32 for 8-9 year olds

12. When the episodes were incomplete, the following items were the items omitted.

Initiating Event or response: 64%
 Attempts: 46%
 Consequences: 35%

Story Structure Levels

Another way to look at the macrostructure of stories is to look at the story structure level. Hughes, McGillivray and Schmeidek (1997) provide the following information about structure levels.

| Story Structure Level | Developmental Age | Description |
|-----------------------|-------------------|--|
| Descriptive Sequence | Preschool | Describe character(s), surroundings, and habitual actions with no causal relations |
| Action Sequence | Preschool | Lists actions that are chronologically but not causally related |
| Reactive Sequence | Preschool | Includes a series of actions, each of which automatically causes other actions, but with no planning involved; no clear goal-directed behavior |
| Abbreviated Sequence | About 6 years | Provides aims or intentions of a character but does not explicitly state the character's plan to achieve aims, planning must be inferred |

| Story Structure Level | Developmental Age | Description |
|-----------------------|--------------------|---|
| Incomplete Episode | Around 7-8 years | States planning, but one or more of the three essential story grammar parts of a complete episode is missing: IE, A, C |
| Complete Episode | Around 7-8 years | Includes aims and planning of a character; may reflect evidence of planning in the attempts of a character to reach the goal; has at minimum an initiating event, an attempt; and a consequence; uses words like <i>decide to</i> |
| Multiple Episode | Around 7-8 years | Is a chain of reactive sequences or abbreviated episodes, or a combination of complete and incomplete episodes |
| Complex Episodes | Around 11 years | Includes elaboration of a complete episode by including multiple plans, attempts, or consequences within an episode; includes an obstacle to the attainment of a goal; may include a tick, as in "trickster tales" |
| Embedded Episode | Around 11 years | Embeds another complete episode or reactive sequence within an episode |
| Interactive Episode | Beyond 11-12 years | Describes one set of events from two perspectives, with characters and goals influencing each other; may have a reaction or consequence for one character serving as an initiating event for another character |

Stein and Glenn proposed the following decision making matrix for Story Structure Level

| DECISION MAKING MATRIX FOR STORY STRUCTURE LEVEL |
|---|
| Does the story have a temporally related sequence of events? No – Descriptive Sequence Yes - Next Question |
| Does the story have a causally related sequence of events? No – Action Sequence Yes - Next Question |
| Does the story imply goal-directed behavior? No – Reactive Sequence Yes - Next Question |
| Is planning or intentional behavior explicit? No – Abbreviated Episode Yes - Next Question |
| Can an initiating event, attempt(s) and consequence(s) be identified? No – Incomplete Episode Yes – Next Question |
| Does the story have more than one episode at the reactive sequence level or higher? No – Complete Episode Yes – Next Question |
| Does the story have an obstacle? No – Multiple Episodes Yes – Next Question |
| Does the story have an embedded or interactive episode? No – Complex Episode Yes – Embedded Episode or Interactive Episode |

Oral Narrative Rubric

Name: _____ Age: _____
 Grade: _____ Teacher: _____
 Examiner: _____ Date of Testing: _____
 Telling/Retelling: _____ Pre-Test / Posttest (Circle the correct one)

| STORY COMPONENT | RATING |
|------------------------------|--------|
| Setting Information | |
| Character Information | |
| Temporal Information | |
| Causal Markers | |
| Sentence Complexity | |
| Vocabulary | |
| Creativity | |
| Dialogue | |
| Listener Effort | |
| Story Episode | |

| STORY COMPONENT | INEFFECTIVE (1) | LESS EFFECTIVE (2) | ADEQUATE (3) | HIGHLY EFFECTIVE (4) |
|--|---|--|---|--|
| Setting Information- Reference to time & place | Child did not provide any reference to time or place | At least 1 vague reference to time or place | At least 1 reference to time or place were included | Child included references for both time and place |
| Character Information- (name, size, shape, color, physical descriptions) | No information included, no character markers provided- the turtle, the boy | Child includes at 1 piece of information about 1 character | Child includes at least 1 piece of information about 2 characters | Child includes 2 pieces of information about 2+ characters of different attributes |
| Temporal Information- Sequence words | No temporal markers included | At least one temporal marker included | At least 2 different temporal markers included | At least 3 different temporal markers included |
| Causal Markers- Words used that tell why an event occurred | No causal markers included | At least 1 causal marker included in the story | At least 2 different causal markers included in the story | At least 3 different causal markers included in the story |
| Sentence Complexity- Syntax | Child uses mostly incomplete sentences or phrases | Child uses mostly simple sentences and 1 type of compound sentence | Child uses 2 types of compounds and 1 complex sentence | Child uses 2+ types of compound and complex sentences |
| Vocabulary- Complexity of words used | Many non-specific references used | Basic/Simple vocabulary- 1 modifier used | Appropriate vocabulary- 2 modifiers or beyond basic words used | Elaborative vocabulary- 3 beyond basic words used (figurative vocabulary) |
| Creativity- Complexity of ideas used | Literal ideas used | 1 reference to a non-literal idea was used (simple) | 2 non-literal references used (simple-abstract) | 3 non-literal references used (abstract) |

| STORY COMPONENT | INEFFECTIVE (1) | LESS EFFECTIVE (2) | ADEQUATE (3) | HIGHLY EFFECTIVE (4) |
|---|--|--|---|--|
| Dialogue- Conversations between characters | No dialogue included | Dialogue included by 1 character- simple dialogue ("hi, bye-bye") | Dialogue included between 2 characters OR 1-2 examples of embedded dialogue | Multiple dialogue included between more than 2 characters OR 3+ examples of embedded dialogue |
| Listener Effort- storyline | Requires maximum effort to follow storyline. Listener must fill in information more than 3 instances - uninteresting | Requires moderate effort to follow storyline. Listener has less fills in information 1-2 times- captures the listener for 1/2 of the story | Requires minimal effort to follow storyline-captures the listener for most of the story | Storyline was clearly defined and easy to follow. No listener effort was required- captivating to the listener |
| Story Episode- Basic Episode: Initiating Event (IE), Attempt (A), Consequence (C) Elements: Internal Response (IR), Plan (P), Response/Ending (E) | Child describes pictures with 1-2 basic episode elements (IE-A or A-C) | Child includes at least 1 basic episode + 1 extra element | Child includes 2 basic episodes + 2 extra elements | Child includes 2+ basic episodes + 3 extra elements |

Source: Miller L., Gillam R., Peña, E., *Dynamic Assessment of Children's Narratives and Interventions* (2001)

Presupposition

Presupposition has been defined in many ways:

Presupposition involves that information which is not necessarily explicit in a message but which must be shared by the communication partners if a message is to be understood (Roth and Spekman, 1989).

Presuppositions constitute the background information that speakers share with their listeners during conversation. Special reference is made to the distinction between new or changing information in the speaking situation and old or unchanging information. Expressing new information reflects presuppositional ability because it requires the speaker to make assumptions about the information that is available to the listener (Rowan, Leonard, Chapman, and Weiss, 1983).

Presupposed information is the information a speaker assumes to be given or shared between himself and a hearer. It can consist of specific knowledge about the relation of an utterance to the context of utterance, linguistic or non-linguistic or more general knowledge of the world, conversational rules and roles, and permissible interpretations of lexical items. It does not matter if the information is really shared by the hearer; it matters only that the speaker believes the information to be shared. Comprehension of the presupposed information of an utterance requires an inference to the information the speaker believes to be shared with the hearer (Ackerman, 1978).

To facilitate effective communication, children develop a means for accomplishing their communicative intents in the most effective method possible. They learn to respect and take into account the listener's perspective by "presupposing" such listener's knowledge and consequently uttering their messages accordingly. Roth and Spekman (1984) suggested that children establish shared knowledge by:

1. Monitoring some aspect of the physical setting
2. Sharing general knowledge of the speech situation or the communicative partner
3. Mutually monitoring previous or preceding discourse


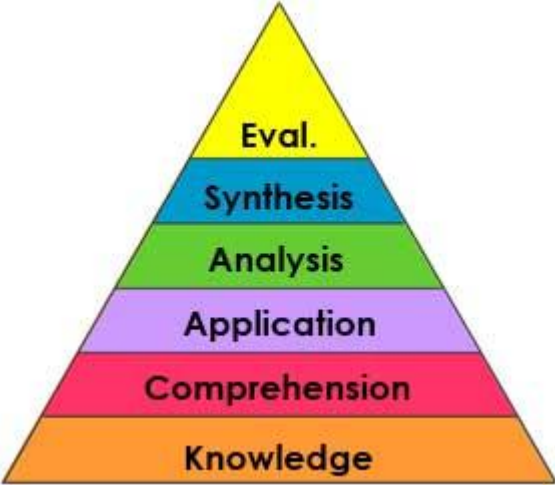
Taxonomies for Looking at Presuppositions

Several taxonomies have been suggested for looking at presuppositions. Two of these can be found on the following pages.

Bloom's Taxonomy

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. During the 1990s a new group of cognitive psychologist, lead by Lorin Anderson (a former student of Bloom's), updated the taxonomy reflecting relevance to 21st century work. The graphic is a representation of the NEW verbage associated with the long familiar Bloom's Taxonomy. Note the change from Nouns to Verbs to describe the different levels of the taxonomy.

Note that the top two levels are essentially exchanged from the Old to the New version.

| | |
|--|---|
|  <p style="text-align: center;">New Version</p> |  <p style="text-align: center;">Old Version</p> |
| Remembering: can the student recall or remember the information? | define, duplicate, list, memorize, recall, repeat, reproduce state |
| Understanding: can the student explain ideas or concepts? | classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase |
| Applying: can the student use the information in a new way? | choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write. |
| Analyzing: can the student distinguish between the different parts? | appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test. |
| Evaluating: can the student justify a stand or decision? | appraise, argue, defend, judge, select, support, value, evaluate |
| Creating: can the student create new product or point of view? | assemble, construct, create, design, develop, formulate, write. |

| BERLIN, BLANK AND ROSE LEVELS OF ABSTRACTION | | | |
|--|--|--|--|
| Level 1 Matching Perceptions | Level 2 Selective Analysis/ Integrating Of Perception | Level 3 Reorder/ Infer About Perception | Level 4 Reasoning About Perception |
| <p>Comments or questions that: Label: Name an object or person Locate: Locate an object or character Notice: Direct attention to a pictured object</p> | <p>Comments or questions that Describe characteristics: Focus on properties of object or person Describe scene: Describe actions Recall information: Focus on prior information presented Complete sentence: Pause to allow child to complete sentence</p> | <p>Comments or questions that Summarize: Define: Word meaning Provide point of view: (for a character in the text) Identify similarities and differences: Between pictured objects or between story and child's life Make judgments: About characters, ideas, or objects Unify pictures: Summarize or synthesize information from a series of pictures in book</p> | <p>Comments or questions that Predict: What will happen next or outcome of story Problem solve: Consider causes of events, formulate solutions, and explain obstacles to characters thinking or actions Explain: Story concepts or actions</p> |

Curriculum-Based Intervention for Cognitive Processing and Question Answering

Carolyn Wilson, Janet Lanza & Elisabeth Wiig
ASHA Convention Presentation, 1993

This paper used Bloom's Taxonomy to demonstrate that language learning disabled (LLD) students had difficulty with questions from the higher level of Bloom's Taxonomy.

The following stories are from the Poster Session presentation.

They reached the following conclusions:

1. Background research indicates that students with LLD often have difficulty processing and answering questions that require a response beyond factual information.
2. Planning curriculum-based lessons with questions at all six levels of Bloom's Taxonomy provides an efficient way to address the need for intervention.
3. The illustrative lessons provide hands on activities, are thematic and interactive, and provide shared bases for collaborative intervention in the classroom.
4. Once learned, the planning process, methods and procedures can easily be adapted to all ages, curriculum subjects and themes.

Goldilocks and the Three Bears

Curriculum Area: Language Arts

Grade Level: Primary

Focus: "Have you ever eaten porridge? What is porridge? Do you know a story about some bears that ate porridge? That's right. Goldilocks and the Three Bears. Let's have fun learning about Goldilocks, the three bears and the porridge.

Plan: Read the story of Goldilocks and the Three Bears or have the children act it out with costumes or puppets. After the story is presented, interact with students by discussing the questions developed from Bloom's Taxonomy.

Close: "Was the story real or make-believe? It is fun to pretend about make-believe stories. I am glad we had fun today with Goldilocks and the three bears.

Bloom's Questions

Knowledge

Who were the characters in the story?
Where did the bears go on their walk?
Which bear had a great big "voice"?

Comprehension

Tell one (two or three) things you remember from the story.
Explain what Goldilocks did in the bear's kitchen.
Describe how the porridge bowls looked after Goldilocks had been there.

Application

Did anyone ever come to your house uninvited? Tell about it.
Show how you think baby bear looked when he saw that his chair was broken.
The bears' porridge was hot. Name some other things you eat that are hot.

Analysis

Let's compare mama bear to your mother. How is she like her? How are they different?
Tell something that happened at the beginning, middle and end of the story.
Tell the opposites of some of these words from the story: hot, cold, big, little, broken, empty, hard

Synthesis

Think of a new ending for this story. Instead of going for a walk, think of some other things the bears could have done while their porridge was cooling.
Pretend that this is a real story happening today. How would you report it on the evening news?

Evaluation

Who is your favorite character in this story? Tell why.

Do you think Goldilocks made the right choice when she went into the bears' house? Why?
Why not?

When you are a parent, will you tell this story to your children? Why? Why not?

The Federal City

Curriculum Area: Social Studies

Grade Level: Secondary

Focus: Today's lesson contains the word 'metropolis.' A metropolis is a large busy city. Do you know or have you ever lived in a metropolis? Let's learn something about one of America's most important cities, the Federal City.

Plan: Introduce the key vocabulary. Read the story. Stop during the story presentation to discuss the meanings of key words. Search for context clues to help with the vocabulary. Share postcards, pictures, and maps of Washington, D.C. After presenting the story, interact with students by discussing the questions from Bloom's Taxonomy.

Bloom's Questions

Knowledge

In which government building do the Senate and the House of Representatives assemble?
Name some monuments you would see in Washington, D.C. that honor American heroes.
When did the constitution require the new nations to have a capital city in a federal district?

Comprehension

Describe in your own words some things you would see as a sightseer in the capital city.
Explain why it was imperative to have a plan for designing the city.
Tell the main idea of this story.

Application

The city designers believed it was imperative to plan for a growing city. Why was that?
Why do you think the writers of the Constitution did not want the capital city in a state?
What were the steps in planning the federal city?

Synthesis

Design your own metropolis. Tell about the map you draw of it.
Have you seen a city that was not planned well? How could you solve its problems?
Suppose the capital were located in one of the states. What do you think would happen?

Evaluation

Do you think it was wise to build a city primarily for government. Why? Why not?
The story says Washington, D.C. is the most important city to all Americans. Do you agree?
Why? Why not?
What would you want to see first if you visited Washington, D. C.? Why?

“I Don’t Remember” (Wiig and Wilson, 1994)
Grade 2 Passage

Sharon's teacher had planned for the show-and-tell on recycling for a week. On the big day she brought some cans, bottles and newspapers and put them on her desk. She looked around and saw that she had more things than anyone else. One boy brought empty cereal boxes. Another brought paper bags from the grocery store. One of the girls brought a few soda cans.

The teacher came into the room. She saw what the children had brought and said, "You are a wonderful class. Everyone brought something." Sharon looked around. Suddenly she saw that Tom was trying to hide at the desk behind her. He had nothing on his desk. No one had noticed Tom.

Sharon turned around and said, "Tom where are your things?" Tom looked away and sighed. Sharon knew that Tom had forgotten his things for recycling. The teacher started to call for students to show their things. Right away Tom raised his hand and asked permission to go to the bathroom. Sharon knew Tom didn't want the teacher to ask him.

Suddenly Sharon knew what to do. She took two cans, a newspaper, and a bottle from her own things. She turned around and put them on Tom's desk.

When Tom came back he took one look at his desk. He couldn't believe what he saw. Where there had been nothing, there were now several things for him to show. "I wonder where all of the things came from?" he thought. He sat down and the teacher called his name. Tom went to the front and showed the things on his desk. He told how everything could be recycled.

The teacher said, "Tom, you did a great job." Tom looked at Sharon and smiled. Sharon smiled back. (296 words)

Story Questions and Scoring Criteria

Remembering and Giving Given Information:

1. What did Sharon bring to class? Tell two things. (e.g. cans, bottles, newspapers)
2. When the teacher asked for the students to show their things, what did Tom do? (e.g. Tom asked to go to the bathroom; raised his hand to go; hid behind Sharon)
3. What did Tom learn about his friends? (e.g. could share; be kind/generous/nice)
4. How did Tom guess Sharon had put the things on his desk? (e.g. closest to him; he had seen her things; she knew he did not bring anything; she smiled at him)
5. Suppose someone in your class forgot to bring something to show-and-tell, what could you do to help? (e.g. share your thing; ask someone else to share)

Understanding Relations and Consequences:

1. Suppose you forgot to bring something important to class, what would it be best for you to do? (E.g. tell teacher; say you're sorry; tell why; be honest; tell truth)
2. Tell two ways you think Sharon could have felt when she compared what she had brought to the things the other children had brought. (e.g. proud of /herself/ happy/ gloating/surprised she had more)
3. Think about how Tom felt at different times in the story. Tell two different ways he felt and give the reasons. (e.g. sad/guilt/disappointed/embarrassed for forgetting; relieved/happy/surprised/grateful for the things on his desk)
4. Tell two ways Sharon was rewarded for sharing her things with Tom. (e.g. by smile of thank you; by Tom doing well; by feeling good about herself for helping)
5. What if Sharon had not shared her things with Tom? Tell two ways the story would be different? (e.g. Tom might be punished; get a note to take home; sent to the principal's office; bad grade)

Score Sheet

Name: _____

Date: _____

“I Don’t Remember” (Wiig and Wilson, 1994) Grade 2 Passage

Scoring Criteria

2 - Complete answer

1 - Partial answer

0 - Incorrect Response, No Response

Total Score _____ 20 points possible

Remembering and Using Given information _____ 10 points possible

Understanding Relations and Consequences _____ 10 points possible

Performance Index: Ratio of Remembering and Using Given Information/Understanding Relations and Consequences

For example if a student received 8 points on Remembering and Using Given Information and 2 points on Understanding Relations and Consequences he would have a performance index of $8/2 = .25$.

Ratio scores of between .83 and 1.33 are considered to be acceptable.

References for Informal Assessment of Language

- Ackerman, B.P. (1978). Children's understanding of speech acts in unconventional directives. *Child Development*, 49, 311 – 318.
- Applebee, A. (1978). *The child's concept of a story: Ages 2 to 17*. Chicago, IL: University of Chicago Press.
- Berlin, L. J., Blank, M., and Rose, S. A. (1980). The language of instruction: The hidden complexities. *Topics in Language Disorders*, 1, 47-58.
- Bird, A.K. (2003). Normal language development: Lesson 6 – Conversation (pp. 1-9, 12). Denton: Texas Woman's University, Department of Communication Sciences and Disorders
- Bloom, B.(1956). *Taxonomy of educational objectives*. Boston, MA: Allyn and Bacon.
- Brackenberry, T., and Pye, C. (2005). Semantic deficits in children with language impairments: Issues for clinical assessment. *Language, Speech, and Hearing Services in Schools*, 36, 5 – 16.
- Brown, R. (1973). *A first language: The early stages*. Cambridge, MA: Harvard University Press.
- Carpenter, A. E., and Strong, J. C. (1988). Pragmatic development in normal children: Assessment of a testing protocol. *National Student Speech, Language, and Hearing Association Journal* , 16(1), 40 - 49.
- Coggins, T. (1998). Clinical assessment of emerging language: How to gather evidence and make informed decisions. In A.M. Wetherby, S.F. Warren, and J. Reichle (Eds.). *Transitions in prelinguistic communication*. (pp. 233 – 259). Baltimore, MD: Paul H. Brookes.
- Coggins, T., Olswang, L., and Guthrie, J. (1987). Assessing communicative intents in young children: Low-structured or observations tasks? *Journal of Speech and Hearing Disorders*, 52, 44 – 49.
- DeKemel, K. (2003). *Intervention in language arts: A practical guide for speech-language pathologists*. St. Louis, MO: Butterworth-Heinemann/Elsevier.
- Dollaghan, C., and Campbell, T. (1998). A procedure for classifying disruptions in spontaneous language samples. *Topics in Language Disorders*, 12, 56 – 68.
- Dore, J. (1974). A pragmatic description of early language development. *Journal of Psycholinguistic Research*, 4, 343 – 350.
- Dore, J. (1977). "Oh, them sheriff": A pragmatic analysis of children's responses to questions. In S. Ervin-Tripp and C. Mitchell-Kernan (Eds.), *Child Discourse*, (pp. 139-164). New York: Academic Press.

- Dore, J. (1978). Variations in preschool children's conversational performance. In K. Nelson (Ed.). *Children's Language (Vol.1)*. New York: Gardner Press.
- Eisenberg, S., Fersko, R., and Lundgren, C. (2001). The use of MLU for identifying language impairment in preschool children: A review. *American Journal of Speech-Language Pathology*, 14(2), 92 – 106.
- Ghaziuddin, M., and Gerstein, L. (1996). Pedantic speaking style differentiates Asperger Syndrome from High-Functioning Autism. *Journal of Autism and Developmental Disorders*, 26(6), 585 – 595.
- Glasgow, C., and Cowley, J. (1994). *Renfrew Bus Story Test – North American Edition*. Centreville, DE: Centreville School.
- Grice, H.P. (1975). Logic and conversation. In P. Cole & J.L. Morgan Eds.), *Syntax and Semantics: Vol. 3. Speech acts* (pp. 41-48). NY: Academic Press.
- Harris, M., & Taylor, G. (2009). *Medical and Health Science Statistics Made Easy*. Sudbury, Massachusetts: Jones and Bartlett Publishers.
- Hedberg, N.L., and Stoel-Gammon, C. (1986) Narrative analysis: Clinical procedures. *Topics in Language Disorders*, 7(1), 58 – 69.
- Hedberg, N.L., and Westby, C. (1993). *Analyzing storytelling skills: Theory to practice*
- Hughes, McGillivray, Schmidek (1997). *Guide to narrative language procedures for assessment*. Eau Clair, WI: Thinking Publications.
- Hunt, K. (1965). *Grammatical structures written at three grade levels* (Research Report No. 3). Urbana, IL: National Council of Teachers of English.
- Hunt, K. W. (1970). Syntactic maturity in school children and adults. *Monographs of the Society for Research in Child Development*, 35 (134), Chicago: University of Chicago Press.
- Jordan, F. M., Murdoch, B. E., and Buttsworth, D. L. (1991). Closed-head injured children's performance on narrative tasks. *Journal of Speech and Hearing Research*, 34, 572-582.
- Leadholm, B., and Miller, J. (1992). *Language sample analysis: The Wisconsin guide*. Madison, WI: Wisconsin Department of Public Instruction.
- Liles, B. Z. (1993). Narrative discourse in children with language disorders and children with normal language: A critical review of the literature. *Journal of Speech and Hearing Research*, 36, 868-882.
- McFadden, T., and Gillam, R. (1996). An examination of the quality of the narratives produced by children with language disorders. *Language, Speech, and Hearing Services in Schools*, 27, 48 – 56.

Merritt, D.D., and Liles, B.Z. (1987). Story grammar ability in children with and without language disorder: Story generation, story retelling, and story comprehension. *Journal of Speech and Hearing Research*, 30, 539 – 552.

Miller, J.F., and Chapman, R. S. (1981). The relation between age and mean length of utterance in morphemes. *Journal of Speech and Hearing Research*, 24, 154-161.

Miller, L., Gilliam, R., and Peña, E. (2001). *Dynamic assessment and intervention: Improving children's narrative abilities*. Austin, TX: Pro-Ed.

Miller, J., Long, S., McKinley, N., Thormann, S., Jones, M.A., and Nockerts, A. (2005). *Language sample analysis II: The Wisconsin guide*. Madison, WI: Wisconsin Department of Public Instruction.

Milosky, L. (1987). Narratives in the classroom. *Seminars in Speech and Language*, 8(4), 329 – 343.

O'Donnell, R., Griffen, W., and Norris, R. (1967). *Syntax of kindergarten and elementary school children: A transformational analysis* (Research Report No. 8). Champaign, IL: National Council of Teachers.

Owens, R.E., Jr. (2001) *Language development: An introduction (5th edition)* (pp. 276-278, 361-365). Boston: Allyn & Bacon.

Peterson, C., and McCabe, A. (1983). *Developmental psycholinguistics: Three ways of looking at a child's narrative*. New York: Plenum Press.

Ripich, D., and Griffith, P. (1988). Narrative abilities of children with learning disabilities and nondisabled children: Story structure, cohesion and propositions. *Journal of Learning Disabilities*, 21, 165 – 173.

Roth, F. (1986). Oral narrative abilities of learning disabled students. *Topics in Language Disorders*, 7, 21 – 30.

Roth, R. and Spekman, N. (1984). Assessing the pragmatic abilities of children. Part 1. Organizational framework and assessment parameters. *Journal of Speech and Hearing Disorders*, 49, 2 - 11.

Roth, R. and Spekman, N. (1984). Assessing the pragmatic abilities of children. Part 2. Guidelines, consideration, and specific evaluation procedures. *Journal of Speech and Hearing Disorders*, 49, 12 – 17.

Roth, R. and Spekman, N. (1989). Higher-order language processes and reading disabilities. In a. Kamhi and H. Catts (Eds.) *Reading disabilities: A developmental language perspective* (pp. 159 – 198). Boston, MA: College-Hill Press.

Rowan, L.L., Leonard, L., Chapman, K. Weiss, A. (1983). Performative and presuppositional skills in language disordered and normal children. *Journal of Speech and Hearing Disorders*, 26, 97 – 106.

- Stein, N., and Glenn, C. (1979). An analysis of story comprehension in elementary school children. In R. Freedle (Ed.). *New directions in discourse processing* (vol. 2, pp.53 – 120). Norwood, NJ: Ablex.
- Stickler, K. R. (1987). *Guide to analysis of language transcripts*. Eau Claire, WI: Thinking Publications.
- Strong C. (1997). *Strong Narrative Assessment Procedures*. Eau Claire, WI: Thinking Publications.
- Sturm, J.M., and Nelson, N.M (1997). Formal classroom discourse lessons: New perspectives on a familiar discourse event. *Language, Speech and Hearing Services in Schools*, 28, 255-273.
- Templin, M.C. (1957). *Certain language skills in children: Their development and interrelationships*. Minneapolis, MN: University of Minnesota Press.
- Tough, J. (1977). *The development of meaning*. New York: Halsted Press.
- Westby, C. E., Van Dongen, R., & Maggart, Z. (1989). Assessing narrative competence. *Seminars in Speech and Language*, 10, 63–76.
- Wetherby, A., Cain, D., Yonclass, D., and Walker, V. (1988). Analysis of intentional communication of normal children from the prelinguistic to the multiword stage. *Journal of Speech and Hearing Research*, 31, 240 – 252.
- Wetherby, A. and Prizant, B. (1989). The expression of communicative intent: Assessment guidelines. *Seminars in Speech and Language*, 10, 77 – 91.
- Wetherby, A. and Prutting, C. (1984). Profiles of communicative and cognitive-social abilities in autistic children. *Journal of Speech, Language, and Hearing Research*, 27, 364 – 377.
- Wiig, E., and Wilson, C. (1994). *I don't remember: Grade 2 passage*. Unpublished.
- Wilson, C., Lanza, J., and Wiig, E. (1993). *Curriculum-based intervention for cognitive processing and question answering*. Presentation at American Speech-Language-Hearing Association Convention.

VI. Eligibility as Speech Impaired with a Language Disorder

GUIDELINES FOR DETERMINING THE PRESENCE OF A LANGUAGE DISORDE

| Establish presence of language disorder: | |
|---|---|
| Measure | Guidelines |
| Global Standardized Tests <ul style="list-style-type: none"> <input type="checkbox"/> Test of Language Development P:4 <input type="checkbox"/> Comprehensive Assessment of Spoken Language Skills <input type="checkbox"/> Clinical Evaluation of Language Fundamentals – 4 <input type="checkbox"/> Oral and Written Language Scales <input type="checkbox"/> Preschool Language Scale-5th Edition <input type="checkbox"/> Clinical Evaluation of Language Fundamentals-Preschool-2 | Results on Global Standardized Test Standard Score of 77 (>1.5 SD) or less OR Results on Global Standardized Test Or Two Similar Language Tests Standard Score of 80 (>1.25 SD) or less Plus additional testing of 80 or less And Parent Data Teacher Data SLP Opinion/"a preponderance of data/evidence" |
| | If the above are not in agreement, Identify informal measures to obtain additional data: |
| Semantics <ul style="list-style-type: none"> <input type="checkbox"/> Type Token Ratio <input type="checkbox"/> DELV <input type="checkbox"/> Repetition of Non-Words <input type="checkbox"/> Test of Word Finding | TTR - >1.25 to 1.5 SD below the mean DELV – 80 or less on standard score Repetition of NW – see table Test of WF - 80 or less on standard score |
| Syntax <ul style="list-style-type: none"> <input type="checkbox"/> MLU-M <input type="checkbox"/> Analysis of Grammatical Errors <input type="checkbox"/> Analysis of Inflectional Morphemes and Certain Free Morphemes <input type="checkbox"/> Subordinate Analysis <input type="checkbox"/> Analysis of Mazes | MLU-M - >1.25 to 1.5 SD below the mean Subordinate Analysis: NPC – less than 4/100 utterances Adverbials – less than 8/100 utterances RC- less than 1/100 utterances Further guidelines being developed |
| Pragmatics <ul style="list-style-type: none"> <input type="checkbox"/> Conversation <input type="checkbox"/> Narrative | Further guidelines being developed |
| Metalinguistics <ul style="list-style-type: none"> <input type="checkbox"/> Defining <input type="checkbox"/> Describing | Further guidelines being developed |
| Document adverse effect on educational performance: | |
| Parent Language Survey | "Rarely" indicated on 3 or more items |
| Teacher Language Survey | PreK-Kn: "Rarely" indicated on 3 or more in any single area of language or a total of 7 or more Grades 1-12: "Rarely" indicated on 5 or more in any single area of language or a total of 10 or more |
| Other: <ul style="list-style-type: none"> <input type="checkbox"/> Interviews & Questionnaires <input type="checkbox"/> Developmental Scales <input type="checkbox"/> Criterion Referenced Procedures | Evidence that language skills have a negative effect on educational performance |

Language Disorder Checklist

Student: _____ **SLP:** _____

Date of Birth: _____ **CA:** _____ **Campus:** _____ **Date:** _____

| Evaluation Tool | Results | Data Supports Concern? | |
|---|---------|------------------------|----|
| | | Yes | No |
| Teacher Language Survey | | | |
| Parent Language Survey | | | |
| Comprehensive Standardized Test: _____ | | | |
| SLP Opinion/"a preponderance of data/evidence" | | | |
| <p>If all of the measures reported above express concern or if all express no concern, the data needed has been collected and FIE may be written and ARD held. If there is any disagreement in concern in the above, continue the evaluation by performing additional standardized testing or informal assessment using a procedure listed below.</p> | | | |
| Additional Standardized Test(s): | | | |
| SYNTAX: MLU-M | | | |
| Analysis of Grammatical Errors | | | |
| Analysis of Inflectional Morphemes and Certain Free Morphemes | | | |

| Evaluation Tool | Results | Data Supports Concern? | |
|---|---|------------------------|----|
| | | Yes | No |
| Subordination Analysis | NPC: _____ Adverbials: _____ RC: _____ | | |
| Analysis of Mazes | | | |
| SEMANTICS: Type-Token Ratio | Number of Different Words _____ Total Number of Words _____ TTR _____ | | |
| DELV | | | |
| Repetition of Non-Words | | | |
| Test of Word Finding | | | |
| PRAGMATICS: Conversational Assessment | | | |
| Narrative Assessment | | | |
| Presupposition Assessment | | | |
| METALINGUISTICS: | | | |
| Based on the data above: | Student meets criteria as a student with a language disorder | | |

VII. Forms

Classroom Considerations for Students Struggling with Language Skills

The following information may be gathered from classroom teachers and/or parents for consideration at the Student Support Team meeting. Consideration should be given to classroom interventions prior to a referral for a Full and Individual Evaluation for Special Education Services. The SLP should check for level of understanding of each recommendation through the Student Support Team meeting.

Student: _____ **Meeting Date:** _____
Person Responsible: _____

| Consideration or Recommendation: | Date | Results |
|---|------|---------|
| 1. Be sure student's hearing has been checked within last 3 months. | | |
| 2. Determine if more than one language is spoken in the home. | | |
| 3. Discuss with parent and teacher the developmental appropriateness of language concerns. | | |
| 4. Determine if the student has previously received services for a language disorder. | | |
| 5. Teacher or parent may talk with the student about specific skills and what he/she may do differently. For example, the teacher may suggest the student repeat instructions silently, ask questions for clarification or use a particular grammatical structure. | | |
| 6. Reinforce efforts of the student to use suggestions the teacher has made such as asking for clarification, asking questions, using a modeled language structure, etc. It is recommended that this be done privately or without calling undue attention to the student's communication skills | | |
| 7. Provide practice times for teacher, parent or peer to model correct productions or opportunities to use specified skills such as categorization, using story grammar, requesting, etc. | | |
| 8. For additional suggestions for syntax, semantics, and/or pragmatics (refer to "Intervention Strategies for Students with Struggling with Language Skills"). | | |
| 9. Attempts to stimulate or reinforce language skills should be discontinued at any time the child shows resistance to the activities or frustration with attempts stimulate language changes. The teacher or parent may reconvene the Student Support Team to address these concerns. | | |

Intervention Strategies for Students Struggling with Language Skills

| Date | Duration | Strategy | Results |
|------|----------|---|---------|
| | | Suggestions for Syntax – Verb Tense | |
| | | Determine if the student’s errors are the result of dialectical differences (i.e. the pattern of verb tense usage may not be atypical within his/her social group) | |
| | | Increase the student’s awareness of the problem by tape recording the student while s/he is speaking with another student who uses verb tenses correctly. Play the tape back for the student to see if s/he can identify correct/incorrect verb tense use | |
| | | After tape recording the student’s speech, have him/her identify the errors involving verb tenses and make appropriate corrections | |
| | | Make sure the student understands the concept of verb tenses by demonstrating what “is happening” what “already happened” and what “will happen” through the use of objects, pictures, and/or written sentences (depending on the student’s abilities) | |
| | | Determine whether the student understands the concept of time which influences comprehension of verb tenses (e.g. Can s/he answer questions using yesterday, today, tomorrow, before, later, etc.? Does s/he use such vocabulary when speaking even though the verb tense is incorrect?) | |
| | | Make a list of those verb tenses the student most commonly uses incorrectly. This list will become the guide for identifying the verb tenses which the student should practice each day | |
| | | During the day, write down specific verb tense errors produced by the student. Read the sentences to the student and have him/her make appropriate corrections orally. | |
| | | When speaking privately with the student, restate the verb tense error with a rising inflection (e.g. “Yesterday he <u>plays</u> ?”) to see if the student recognizes errors and spontaneously makes the correction. | |
| | | Give the student a series of sentences, both written and oral, and have him/her identify the ones that contain correct verb tenses. Have the student correct the sentences with incorrect verb tenses. | |
| | | Make the conjugations of verbs a daily activity. | |
| | | Make headings entitled <i>yesterday</i> , <i>today</i> , and <i>tomorrow</i> under which students can list activities they <i>were doing</i> , <i>are doing</i> , or <i>will do</i> . The following day, change the today heading to <i>yesterday</i> and the tomorrow heading to <i>today</i> . Emphasize correct verb tenses throughout the activity. | |
| | | Suggestions for Syntax – Subject-Verb Agreement | |
| | | Determine if the student’s errors are the result of dialectical | |

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| | | differences (the pattern of subject-verb agreement may not be atypical within his/her social group). | |
| | | Increase the student's awareness of the problem by tape recording the student speaking with another student who exhibits appropriate subject-verb agreement. Play back the tape for the student to analyze and see if s/he can identify correct/incorrect subject-verb agreement. | |
| | | Make sure the student understands the concept of plurality. | |
| | | Make a list of the verbs the student most commonly uses incorrectly. This list will become the guide for learning activities in subject-verb agreement. | |
| | | Have the student complete written worksheets in which s/he chooses the correct verb forms to go with the subject of the sentence (e.g. I ____ {saw/seen} a new car.) | |
| | | When speaking privately with the student, restate the subject-verb error with a rising inflection to see if the student recognizes errors and spontaneously makes corrections. | |
| | | Write down specific subject-verb errors made by the student during the day. Give the written sentences to the student and have him/her make corrections. | |
| | | Give the student a series of sentences, both written and oral, and have him/her identify which are grammatically correct and incorrect. | |
| | | Suggestions for Syntax – Sentence Structure | |
| | | Make groups of cards containing subjects, verbs, adjectives, etc. Have the student combine the cards in various ways to construct complete sentences. | |
| | | Give the student several short sentences and have him/her combine them in order to produce one longer sentence (e.g. "The boy ate the candy." "The lady bought the candy." Becomes "The boy ate the candy that the lady bought.") | |
| | | Give the student a list of transition words (e.g. therefore, although, because, since, before, after) and have him/her make up sentences using each word. | |
| | | Give the student scrambled words and have him/her put them in the correct order to form a complete sentence. | |
| | | Have a number of students build a sentence together (e.g. the first student starts with a subject; the next student adds a verb. The process continues as long as possible to create one long sentence). Do not accept nondescriptive terminology. | |
| | | Ask questions that stimulate language. Avoid questions that can be answered with yes/no or a nod of the head (e.g. "What did you do at recess?" instead of "Did you play on the slide?") | |
| | | Using a book without words, have the student tell the story using complete sentences. | |
| | | After a field trip or special event, have the student retell the activity that occurred with an emphasis on using complete | |

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| | | sentences. | |
| | | Have the student read simple passages and tape record them. Have the student listen to the recording and mark correct and incorrect production of sentences | |
| | | Have the student create complete sentences using targeted vocabulary. | |
| | | Have the student underline words in sentences that s/he often omits or has trouble producing correctly. | |
| | | Suggestions for Semantics | |
| | | Use “hands-on” activities to teach vocabulary by constructing objects and/or organizing manipulatives. | |
| | | Have the student provide as many adjectives as possible to go with a given noun. Then have the student choose one of the adjectives and produce as many nouns as possible to go with it. | |
| | | Have the student make a book of adjectives with one or two adjectives for each letter of the alphabet. | |
| | | Give the student a picture of or suggest a specific location and have the student name as many objects, actions, persons, etc as s/he can think of that can be found there. | |
| | | Teach the student to use context clues and strategies for determining the meaning of unknown vocabulary. | |
| | | Explain how to use vocabulary resources such as a dictionary or thesaurus. | |
| | | Use visualization to help students remember how to recall words (e.g. the scent of a fragrant flower may be visualized to remember the meaning of “aroma” or the student might visualize a car parked in the park to remember the two meanings of the word “park”). | |
| | | Use visual aids whenever possible when introducing new vocabulary. | |
| | | Give the student a list of words and ask him/her to tell the opposite of each word. | |
| | | Have the student make up sentences using the new words s/he has learned. | |
| | | Give the students a list of words that come from different categories and have the student separate them into different piles as they talk about why they are putting them in the group they did. | |
| | | Name a category and have the student identify things within the category. Introduce new words that belong in the same category. | |
| | | When the student is asked to name items in a category, have him/her think of a way to organize recalling the words (e.g. when naming animals, do it by category: farm animals, zoo animals, pets, birds, fish, etc.). | |
| | | Give the student a “word of the day” and challenge him/her to work it into conversation. Reinforce the student each time | |

| | | | |
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| | | s/he uses the word. | |
| | | Use word walls. | |
| | | Play word games such as “Scategories”, “Hink-pink”, etc. | |
| | | Have the student keep a notebook of all the new vocabulary words to refer to during daily conversations and activities. | |
| | | Present one concept at a time. | |
| | | Use pictures or similar words in order to help the student recognize differences. | |
| | | Use similar words in sentences to help the students recognize differences. | |
| | | Give the student a subject and have him/her list as many words as s/he can think of that are associated with the subject. | |
| | | Give the student a word and have him/her list as many words as s/he can think of that are associated with the word. | |
| | | Using a book without words, have the student tell the story using descriptive vocabulary. | |
| | | Have the student keep a notebook of difficult words encountered each day. These can be practiced by the student with teacher or peer assistant. | |
| | | Give the student a series of words (e.g. objects, persons, places, etc) and have the student list all the words s/he can think of with similar meanings (synonyms). | |
| | | Discuss the meanings of figurative language (idioms, metaphors, similes, proverbs). Have the student explain the literal and figurative meaning of the utterance. | |
| | | Give the student a list of idioms and have him/her say a sentence or tell a story using the idioms. | |
| | | Find a list of jokes that use words that have two meanings. Tell the joke, have the student select the right answer and then talk about the two meanings of the word (e.g. Why did the farmer call his pig “Ink”? Because he kept running out of the pen) | |
| | | Suggestions for Pragmatics - Conversation | |
| | | Make certain the student is paying attention before giving directions, explanations, and instructions. | |
| | | Stand directly in front of the student when giving directions, explanations, and instructions. | |
| | | Demonstrate while giving directions, explanations, and instructions with pictures, diagrams, and gestures | |
| | | Teach the student how to follow directions (e.g. stop doing other things, listen carefully, write down important points, wait until all directions are given, ask questions when you don’t understand, etc.). | |
| | | Stop at key points when delivering directions, explanations, and instructions to determine student’s comprehension. | |
| | | Make a list of attributes that are likely to help a person | |

| | | | |
|--|--|---|--|
| | | become a good speaker (e.g. take your time, what to say to get started, when to stop talking, look at your listener to see if you are being understood, etc). | |
| | | Have the student repeat directions or give an interpretation after receiving verbal directions. | |
| | | Teach the student a signal to use when s/he does not understand what is being said. | |
| | | Talk about taking turns in conversational speech. Model and practice this skill. | |
| | | Present a diagram showing good conversation skills. Discuss these and practice! | |
| | | Suggestions for Pragmatics - Narratives | |
| | | Teach the student a story grammar system. | |
| | | Use graphic organizers to help the student follow the story grammar. | |
| | | Role play stories that the student has read to help learn the sequence of the story. | |

Teacher Language Survey (Preschool - KN)

Student: _____ Campus: _____ Date: _____
 Age: _____ Grade: _____ Person Completing Form: _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|---|----------------|---------------|
| 1. Use adjectives (function, size, color, shape, category, etc.) | | |
| 2. Name words associated with each other (salt and pepper, baseball and bat, bread and butter, garage and car) | | |
| 3. Identify items or words that go together (identify similarities of items in a category) | | |
| 4. Identify vocabulary at age level | | |
| 5. Label objects and pictures at age level | | |
| 6. Describe/tell the function of items | | |
| 7. Use phrases or sentences of appropriate length for age (compared to other students in your class) | | |
| 8. Understand and use basic concepts (color, shape, size, quantity) | | |
| 9. Understand and use place words (prepositions) | | |
| 10. Understand meaning of what is spoken | | |
| 11. Learn school vocabulary at rate of other students | | |
| 12. Initiate participation in classroom discussions | | |
| 13. Use eye gaze when communicating | | |
| 14. Respond appropriately and courteously to directions and questions | | |
| 15. Use verbal and nonverbal communication in effective ways | | |
| 16. Comprehend facial expressions and body language | | |
| 17. Ask for help when needed | | |
| 18. Stay on subject when talking | | |
| 19. Clarify spoken message when listener does not understand | | |
| 20. Listen attentively to stories and other texts read aloud | | |
| 21. Connect experiences & ideas with those of others through speaking or listening | | |
| 22. Make contributions to discussion in small and large group discussions | | |
| 23. Retell important events in activity or story | | |
| 24. Respond when spoken to or called upon | | |
| 25. Respond to simple directions and questions | | |
| 26. Use correct verb tenses (regular, present progressive, past, future) | | |
| 27. Use question forms correctly | | |
| 28. Answer questions with correct grammar | | |

Teacher Language Survey (Preschool - KN)-page 2

Student: _____ *Campus:* _____ *Date:* _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|--|----------------|---------------|
| 29. Use negation correctly | | |
| 30. Indicate possession (his, mine, the boy's) | | |
| 31. Use regular plural forms (babies, cars, toys) | | |
| 32. Put words in correct order when speaking | | |
| Total: | | |

Additional Comments:

Teacher Language Survey (Preschool - KN) Summary Sheet

Student: _____ Campus: _____ Date: _____

Age: _____ Grade: _____ SLP Scoring Form: _____

Semantics-Items Scored

| Rarely | Comments |
|--|---|
| 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 | |
| Total: | 3 or more items with “rarely” checked indicate concern on this checklist |

Pragmatics-Items Scored

| Rarely | Comments |
|---|---|
| 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 | |
| Total: | 3 or more items with “rarely” checked indicate concern on this checklist |

Syntax-Items Scored

| Rarely | Comments |
|-----------------------------------|---|
| 26, 27, 28, 29, 30, 31, 32 | |
| Total: | 3 or more items with “rarely” checked indicate concern on this checklist |

****7 or more total items with “rarely” checked indicate concern on this checklist**

Notes:

Teacher Language Survey (Grades 1 - 12)

Student: _____ Campus: _____ Date: _____

Age: _____ Grade: _____ Person Completing Form: _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|---|----------------|---------------|
| 1. Use adjectives to describe orally (function, size, color, shape, category, etc.) | | |
| 2. Use adverbs orally (fast, quickly, slowly) | | |
| 3. Recall words associated with each other (salt and pepper, baseball and bat, bread and butter, garage and car) | | |
| 4. Group words into a category and name members of a category | | |
| 5. Understand and use antonyms and synonyms | | |
| 6. Identify vocabulary at grade level | | |
| 7. Label objects and pictures at grade level | | |
| 8. Discuss the meaning of words/define words | | |
| 9. Understand more than one meaning for a word (bat, park, foot) | | |
| 10. Understand and use basic time concepts and associated words | | |
| 11. Understand and use place words (prepositions) | | |
| 12. Understand meaning of what is said | | |
| 13. Put ideas into words, explain ideas | | |
| 14. Understand and respond to humor and sarcasm | | |
| 15. Learn school vocabulary at rate of other students | | |
| 16. Understand subtleties in word or sentence meaning (i.e. idioms, figurative language, metaphoric language) | | |
| 17. Distinguish fiction from non-fiction, including fact and fantasy | | |
| 18. Respond when called on in class within expected time | | |
| 19. Initiate participation in classroom discussions | | |
| 20. Interpret connotation from vocal intonation | | |
| 21. Use eye gaze when communicating | | |
| 22. Use adequate vocal intensity | | |
| 23. Begin, maintain, and end a conversational topic | | |
| 24. Restate thoughts in alternative form | | |
| 25. Vary style of language for listener | | |
| 26. Comprehend facial expressions and body language | | |
| 27. Ask for help when needed | | |
| 28. Stay on subject when talking | | |

Teacher Language Survey (Grades 1 - 12) - page 2

Student: _____ Campus: _____ Date: _____

Age : _____ Grade: _____ Person Completing Form: _____

| <i>Compared to other students in your class, does this student</i> | <i>Usually</i> | <i>Rarely</i> |
|--|----------------|---------------|
| 29. "Get to the point" when talking | | |
| 30. Clarify spoken message when listener does not understand | | |
| 31. Connect experiences and ideas with those of others through speaking or listening | | |
| 32. Make contributions to discussion in small and large group discussions | | |
| 33. Retell spoken message by summarizing or clarifying | | |
| 34. Retell important events in activity or story | | |
| 35. Understand and uses simple story structure orally | | |
| 36. Generate ideas before telling a story | | |
| 37. Respond when spoken to or called upon | | |
| 38. Respond to directions and questions | | |
| 39. Understand a variety of sentence structures | | |
| 40. Use subject-verb agreement | | |
| 41. Use correct verb tenses | | |
| 42. Use question forms correctly | | |
| 43. Answer questions with correct grammar | | |
| 44. Use negation correctly | | |
| 45. Use regular and irregular plural forms when speaking | | |
| 46. Use pronouns with referents | | |
| 47. Use compound sentences | | |
| 48. Use complex sentences | | |
| 49. Put words in correct order when speaking | | |
| 50. Understand structural cues such as prefixes and suffixes to recognize words (-ly and un-) | | |
| Total: | | |

Additional Comments:

Teacher Language Survey (Grades 1 - 12) Summary Sheet

Student: _____ Campus: _____ Date: _____

Age: _____ Grade: _____ SLP Scoring Form: _____

Semantics-Items Scored

| Rarely | Comments |
|---|---|
| 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 | |
| Total: | 5 or more items with “rarely” checked indicate concern on this checklist |

Pragmatics-Items Scored

| Rarely | Comments |
|---|---|
| 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38 | |
| Total: | 5 or more items with “rarely” checked indicate concern on this checklist |

Syntax-Items Scored

| Rarely | Comments |
|--|---|
| 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50 | |
| Total: | 5 or more items with “rarely” checked indicate concern on this checklist |

****10 or more total items with “rarely” checked indicate concern on this checklist**

Parent Language Survey

Student Name: _____ Campus: _____
 Completed by: _____ Date: _____

| | | | |
|---|----------------|---------------|-----------------|
| Student's Home Language: | | | |
| 1. Is a language other than English spoken in the home? | | | |
| Compared to other children your child's age is your child able to: | USUALLY | RARELY | COMMENTS |
| 2. Understand what you mean? | | | |
| 3. Use complete sentences when speaking? | | | |
| 4. Use the same vocabulary as other children his/her age? | | | |
| 5. Ask for help or information when needed? | | | |
| 6. Start conversations with others? | | | |
| 7. Carry on a conversation with others? | | | |
| 8. Tell a story/personal experience so that you can follow the point/idea of the story? | | | |
| 9. Understand humor? | | | |
| 10. Describe any concerns about your child's language development. (Give examples) | | | |

Cuestionario de Lenguaje para los Padres

Estudiante: _____ **Escuela:** _____

Llenado por: _____ **Fecha:** _____

| Idioma del estudiante en casa: | | | |
|--|------------|-----------|--------------|
| 1. ¿Hay otro idioma (aparte del español) que se habla en su hogar? ¿Si contesta si, cual idioma prefiere su niño hablar en el hogar? | | | |
| ¿Comparado con otros niños de su edad puede su niño: | USUALMENTE | RARAMENTE | COMMENTARIOS |
| 2. ¿Entender lo que usted quiere decir? | | | |
| 3. ¿Usar frases completas cuando habla? | | | |
| 4. ¿Usar el mismo vocabulario que usan otros niños de su edad? | | | |
| 5. ¿Preguntar por ayuda o información cuando lo necesita? | | | |
| 6. ¿Empezar conversaciones con otros? | | | |
| 7. ¿Mantener una conversación con otros? | | | |
| 8. ¿Contar un cuento/experiencia personal en la cual usted entienda el punto/idea del cuento? | | | |
| 9. ¿Entender humor? | | | |
| 10. Describa algunas preocupaciones acerca del desarrollo de lenguaje de su niño. (Escriba 3-4 ejemplos.) | | | |

Test Evaluation

1. Test Name:
2. Authors:
3. Publisher:
4. What is the cost of the test?
5. Date Published:
6. Ages it assesses:
7. What areas are assessed by the test/subtests?
8. What are the response modes of the test/subtests?
9. What are the task demands of the test/subtests?
10. Describe the norm group including demographics, ages, how many in the whole norm sample and in sub-groups if applicable. Look for the numbers in the technical section but also look at how many norm groups there are for those ages.
11. What are the derived scores it uses? What are the mean and standard deviation for the test and sub- tests (if applicable) you use when interpreting a student's standard score?
12. What types of validity coefficients are reported for this test?
13. What types of reliability coefficients are reported for this test?
14. When looking at the ability of this test to discriminate disorders from average language learners, what were the differences of means between the control group and the clinical group?
15. What specific abilities are needed by the examiner to administer the test? What materials are needed? Are they provided?
16. In your opinion, would you purchase this test to use?

| T-UNIT ANALYSIS | | | | | |
|------------------------|------------------------------|--------------------------|---------------------------|---|--------------------|
| Utterance | Morphemes/ T-Unit | Words/ T-Unit | Clause/ T-Unit | % of Grammatically Correct | Qualitative |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |
| 16. | | | | | |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. | | | | | |
| 21. | | | | | |
| 22. | | | | | |
| 23. | | | | | |
| 24. | | | | | |
| 25. | | | | | |
| Total | | | | | |

Analysis of Inflectional Morphemes and Certain Free Morphemes

Student: _____ **SLP:** _____
Date of Birth: _____ **CA:** _____
Campus: _____ **Date Form Completed:** _____

Place a plus (+) in the column if the item occurs and is correct. Place a minus (-) in the column if the item occurs and has an error

| # | Utterance | Noun Inflectional Morphemes | | | | | | | Verbs | | | | | | | Pronouns | | | | | | | Other | | | | | |
|-------|-----------|-----------------------------|------------|------------|-------------|------------------------|------------|----------------------|-----------------|-------|------|----|------------|--------|------------|-------------------|--------|------------|----------------|---------------|----------|---------------|------------|---------|-------------|-------------|--------|----------|
| | | Inflectional Morphemes | | | | | | | Auxiliary Verbs | | | | Infinitive | | | Personal Pronouns | | | Other Pronouns | | | | Adjective | | Misc. | | | |
| | | Regular Plural | Irr Plural | Possessive | Progressive | 3 rd Person | Past Tense | Irregular Past Tense | modal | to be | have | do | Infinitive | Gerund | Participle | Subject | Object | Possessive | Indefinite | Demonstrative | Relative | Interrogative | Possessive | Article | Comparative | Superlative | Adverb | Negative |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Type-Token Ratio Analysis Form

Student: _____ SLP: _____

Date Form Completed: _____ Campus: _____

| | | | | |
|----------|----------|----------|----------|------------|
| A | B | C | D | E |
| F | G | H | I | J |
| K | L | M | N | O |
| P | Q | R | S | T |
| U | V | W | X | Y/Z |

Repetition of Non-Words Assessment

Child's Name: _____ Date of Assessment: _____

Evaluator: _____

| Repetition of Non-Words Assessment | | | | | | |
|--|---------------|-----------------|------------------------------|-----------------|-----------------|-----------------|
| Nonsense words | Transcription | # of Consonants | Number of Consonants Correct | | | |
| | | | 1 syllable word | 2 syllable word | 3 syllable word | 4 syllable word |
| /naɪb/ | | | | | | |
| /voup/ | | | | | | |
| /taudʒ/ | | | | | | |
| /dɔɪf/ | | | | | | |
| /teɪvək/ | | | | | | |
| /ʃouɪvæg/ | | | | | | |
| /væʃaɪp/ | | | | | | |
| /nɔɪtaʊf/ | | | | | | |
| /ʃɪnɔɪtaʊb/ | | | | | | |
| /naɪnʃouveɪb/ | | | | | | |
| /dɔɪtaʊvɔɪb/ | | | | | | |
| /teɪvɔɪʃaɪg/ | | | | | | |
| /veɪtaʃaɪdɔɪp/ | | | | | | |
| /dævounɔɪʃɪg/ | | | | | | |
| /naɪʃɔɪtaʊvʊb/ | | | | | | |
| /tævəʃɪnaɪg/ | | | | | | |
| Total Consonants | | | | | | |
| Consonants Correct for each length syllable | | | | | | |
| Sum of Consonants Correct for all syllable lengths | | | | | | |
| PCC for each syllable length | | | | | | |
| PCC (Total of all syllable lengths | | | | | | |

Language Disorder Checklist

Student: _____ **SLP:** _____

Date of Birth: _____ **CA:** _____ **Campus:** _____ **Date:** _____

| Evaluation Tool | Results | Data Supports Concern? | |
|---|---------|------------------------|----|
| | | Yes | No |
| Teacher Language Survey | | | |
| Parent Language Survey | | | |
| Comprehensive Standardized Test: _____ | | | |
| SLP Opinion | | | |
| <p>If all of the measures reported above express concern or if all express no concern, the data needed has been collected and FIE may be written and ARD held. If there is any disagreement in concern in the above, continue the evaluation by performing additional standardized testing or informal assessment using a procedure listed below.</p> | | | |
| Additional Standardized Test(s): | | | |
| SYNTAX: MLU-M | | | |
| Analysis of Grammatical Errors | | | |
| Analysis of Inflectional Morphemes and Certain Free Morphemes | | | |

| Evaluation Tool | Results | Data Supports Concern? | |
|---|---|------------------------|----|
| | | Yes | No |
| Subordination Analysis | NPC: _____ Adverbials: _____ RC: _____ | | |
| Analysis of Mazes | | | |
| SEMANTICS: Type-Token Ratio | Number of Different Words _____ Total Number of Words _____ TTR _____ | | |
| DELV | | | |
| Repetition of Non-Words | | | |
| Test of Word Finding | | | |
| PRAGMATICS: Conversational Assessment | | | |
| Narrative Assessment | | | |
| Presupposition Assessment | | | |
| METALINGUISTICS: | | | |
| Based on the data above: | Student meets criteria as a student with a language disorder | | |

VIII. Tables

Table 1
Mean Length of Utterance in Morphemes
 (Miller, Long, McKinley, Thormann, Jones, and Nockerts, 2005).

| MLU-M FOR CHILDREN BETWEEN 3 AND 13 | | | | |
|--|---------------------|------|------------------|------|
| (50 Utterances) | | | | |
| Age | Conversation | | Narrative | |
| | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 3.49 | .75 | 4.23 | 1.09 |
| 4 (3;9 – 4;4) | 4.32 | 1.35 | 5.64 | 1.09 |
| 5 (5;2-5;6) | 5.57 | 1.03 | 6.09 | 1.17 |
| 6 (5;7-6;5) | 5.53 | 1.31 | 7.09 | 1.70 |
| 7 (6;7-7;6) | 6.30 | 1.36 | 8.35 | 1.72 |
| 9 (8;9-9;5) | 6.80 | 1.52 | 9.25 | 1.60 |
| 11 (10;9-11;4) | 7.51 | 2.21 | 10.42 | 1.88 |
| 13 (12;9-13;3) | 7.25 | 1.67 | 9.93 | 1.59 |

Language sample analysis II: The Wisconsin guide (pp. 21-22). Madison, WI: Wisconsin Department of Public Instruction.

Table 2
Mean Length of Utterance in Morphemes (Miller & Chapman, 1981)

Since the norms only go down to three years of age, you may need to use the norms from Miller, J.F. & Chapman, R. S. (1981). The relation between age and mean length of utterance in morphemes. *Journal of Speech and Hearing Research*, 24, 154-161.

| AGE (MONTHS) | MLU | STANDARD DEVIATION |
|---------------------|------------|---------------------------|
| 18 | 1.18 | .32 |
| 21 | 1.39 | .39 |
| 24 | 1.87 | .45 |
| 27 | 2.40 | .51 |
| 30 | 2.75 | .57 |
| 33 | 2.67 | .63 |
| 36 | 3.66 | .69 |
| 39 | 4.16 | .76 |
| 42 | 3.74 | .82 |
| 45 | 4.24 | .88 |
| 48 | 4.33 | .94 |
| 51 | 4.54 | 1.00 |
| 54 | 4.70 | 1.06 |
| 57 | 5.17 | 1.12 |
| 60 | 5.25 | 1.19 |

Controversy exists as to the criteria to use on language samples. Leadholm and Miller (1992) suggest that 1.5 to 2 standard deviations be used to determine language impairment. This manual recommends using 1.25 - 1.5 standard deviations as the difference of concern on standardized tests. In language sample analysis, determine that the MLU is below age expectations and that low language production results in an adverse effect on educational performance.

Eisenberg, S.L., Fersko, T.M., and Lundgren, C. (2001) state that while low MLU may be used as one criterion for identification of a syntax disorder, MLU above the cutoff cannot be interpreted to mean that a child does not have impairment and some qualitative evaluation should also be conducted.

Table 3
Analysis of Grammatical Errors – Inflectional Morphemes

| Inflectional Morphemes (per 50 utterances of Conversation) | | | | | | | | | | | | |
|---|-------------------------|------|---------|------|------------|------|---------------------|------|-------------------------------|------|------------|------|
| Age | Omitted Bound Morphemes | | Plurals | | Possessive | | Present Progressive | | 3 rd Person Plural | | Past Tense | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | .85 | 1.46 | 4.00 | 2.70 | .65 | 1.47 | 1.21 | 1.27 | .79 | .98 | .65 | .98 |
| 4 (3;9 – 4;4) | .41 | .84 | 6.81 | 4.52 | .52 | .89 | 1.56 | 1.25 | 2.19 | 2.34 | .78 | .97 |
| 5 (5;2-5;6) | .55 | .97 | 7.58 | 4.10 | 1.18 | 1.67 | 2.15 | 2.20 | 2.94 | 2.59 | 1.55 | 1.73 |
| 6 (5;7-6;5) | .47 | .75 | 7.64 | 4.10 | 1.22 | 1.42 | 1.78 | 1.91 | 3.27 | 3.01 | 1.80 | 2.10 |
| 7 (6;7-7;6) | .36 | .59 | 8.58 | 4.71 | 1.10 | 1.53 | 2.26 | 1.83 | 3.68 | 3.68 | 2.14 | 2.26 |
| 9 (8;9-9;5) | .37 | .69 | 11.0 | 6.39 | .89 | .97 | 1.96 | 1.72 | 2.26 | 2.19 | 2.00 | 2.02 |
| 11 (10;9-11;4) | .11 | .42 | 10.15 | 5.38 | 2.85 | 3.97 | 2.44 | 2.87 | 3.22 | 2.75 | 2.74 | 2.52 |
| 13 (12;9-13;3) | .41 | .69 | 8.96 | 3.61 | .30 | .67 | 4.81 | 2.48 | 2.81 | 2.30 | 1.26 | 1.85 |

| Inflectional Morphemes (per 50 utterances of narrative) | | | | | | | | | | | | |
|--|-------------------------|------|---------|------|------------|------|---------------------|------|-------------------------------|------|------------|------|
| Age | Omitted Bound Morphemes | | Plurals | | Possessive | | Present Progressive | | 3 rd Person Plural | | Past Tense | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 1.85 | 2.63 | 3.94 | 3.25 | 1.59 | 2.13 | 2.59 | 2.54 | 1.47 | 1.85 | 1.97 | 3.04 |
| 4 (3;9 – 4;4) | 1.11 | 1.42 | 7.33 | 3.74 | 2.00 | 2.42 | 1.96 | 2.38 | 4.30 | 5.75 | 3.19 | 2.87 |
| 5 (5;2-5;6) | .30 | .53 | 6.36 | 4.09 | 3.42 | 4.35 | 3.70 | 3.12 | 2.58 | 4.65 | 3.67 | 3.20 |
| 6 (5;7-6;5) | .71 | 1.25 | 6.62 | 3.83 | 2.04 | 3.19 | 3.16 | 2.70 | 3.56 | 4.64 | 5.98 | 3.86 |
| 7 (6;7-7;6) | .36 | .71 | 7.83 | 4.35 | 3.12 | 3.74 | 5.17 | 4.32 | 5.38 | 8.01 | 7.01 | 5.08 |
| 9 (8;9-9;5) | .56 | 1.63 | 9.22 | 4.41 | 4.00 | 3.74 | 6.59 | 3.92 | 4.59 | 6.16 | 8.00 | 4.73 |
| 11 (10;9-11;4) | .15 | .36 | 13.11 | 6.46 | 1.07 | 1.21 | 7.48 | 4.17 | 10.59 | 8.97 | 7.78 | 4.65 |
| 13 (12;9-13;3) | .33 | 1.00 | 11.78 | 5.90 | 1.00 | 1.11 | 5.63 | 3.35 | 7.93 | 6.60 | 7.26 | 3.65 |

Table 4
Subordination Analysis

| COMPARISON OF RATE OF OCCURRENCE OF SUBORDINATE CLAUSES PER 100 T-UNITS (O'DONNELL, ET AL., 1967) | | | | | | | | | |
|--|-----------------------------|--|--------|----------|-------|---------|--------|----------|-------|
| Grade Level | Age | Rate of Occurrence of each clause type | | | | | | | |
| | | Speech | | | | Writing | | | |
| | | NPC | Adverb | Relative | Total | NPC | Adverb | Relative | Total |
| 3 | 7;4 – 10;2 (Mean 8;9) | 8.42 | 10.12 | 2.63 | 21.17 | 7.75 | 8.93 | .99 | 17.67 |
| 5 | 10;2 – 11;8 (mean 10;10) | 5.81 | 10.05 | 3.26 | 19.12 | 7.50 | 15.65 | 3.37 | 26.52 |
| 7 | 12;6 – 14;6 (mean 13; 0) | 8.87 | 12.83 | 3.90 | 25.60 | 7.47 | 17.60 | 4.46 | 29.53 |
| Type of Language: Story of silent cartoon film children had just seen | | | | | | | | | |

| USE OF FINITE SUBORDINATE CLAUSES IN CHILDREN'S SPEECH/100 T-UNITS (O'DONNELL ET AL., 1967) | | | | | | | | |
|--|-----------------------------|----------------------------|--------|----------|------------------------------------|--------|----------|-------|
| Grade Level | Age | Percentage of Clause Types | | | Rate of Occurrence of Clause Types | | | |
| | | Nominal | Adverb | Relative | Nominal | Adverb | Relative | Total |
| Kinder | 5;3 – 6;4 (mean 5;10) | 34 | 37 | 29 | 5.57 | 6.07 | 4.77 | 16.41 |
| 1 | 6;3 – 7;4 (mean 6;8) | 38 | 47 | 15 | 7.27 | 9.17 | 3.00 | 19.44 |
| 2 | 7;2 – 9;3 (mean 7;10) | 39 | 44 | 17 | 7.00 | 7.87 | 3.15 | 18.02 |
| 3 | 7;4 – 10;2 (mean 8;9) | 40 | 48 | 12 | 8.42 | 19.12 | 2.63 | 21.17 |
| 5 | 10;2 – 11;8 (mean 10;10) | 30 | 53 | 17 | 5.81 | 10.05 | 3.26 | 19.12 |
| 7 | 12;2 – 14;6 (mean 13;0) | 35 | 50 | 15 | 8.87 | 12.83 | 3.90 | 25.60 |
| Type of speech: Telling story of a silent cartoon film children had just seen | | | | | | | | |

Hunt, K.W. (1965). *Grammatical structures written at three grade levels* (Research Report No. 3), Urbana, IL: National Council of Teachers of English.

O'Donnell, R., Griffen, W., & Norris, R. (1967). *Syntax of kindergarten and elementary school children: A transformation analysis*. Urbana, IL: National Council of Teachers of English.

When you have completed this analysis, compare the results to the norms. Scores which are more than one standard deviation below the norms should be considered of concern.

Table 5
Analysis of Mazes

| Mazes in Conversation (50 Utterances) | | | | | | | | | | |
|--|-----------------------|------|--------------|-------|----------------|-------|--------------------------|------|----------------------|------|
| Age | Utterances with Mazes | | No. of Mazes | | No. Mazes Word | | % Maze words/Total Words | | Abandoned Utterances | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 8.65 | 4.63 | 9.62 | 5.34 | 18.65 | 11.36 | 10.03 | 5.02 | 2.12 | 1.85 |
| 4 (3;9 – 4;4) | 9.85 | 5.25 | 12.19 | 7.97 | 23.81 | 21.90 | 10.07 | 6.74 | 1.41 | 1.22 |
| 5 (5;2-5;6) | 11.15 | 5.28 | 13.64 | 18.40 | 26.06 | 18.40 | 8.73 | 5.00 | 2.27 | 2.36 |
| 6 (5;7-6;5) | 13.58 | 4.58 | 16.93 | 7.03 | 31.24 | 15.39 | 10.98 | 4.64 | 2.07 | 1.52 |
| 7 (6;7-7;6) | 14.75 | 6.40 | 19.79 | 10.31 | 38.58 | 25.83 | 11.08 | 5024 | 1.92 | 1.73 |
| 9 (8;9-9;5) | 12.33 | 4.79 | 15.89 | 7.89 | 28.74 | 13.97 | 8.22 | 3.24 | 2.70 | 2.28 |
| 11 (10;9-11;4) | 11.70 | 5.74 | 14.67 | 7.98 | 24.81 | 15.11 | 6.37 | 3.15 | 2.07 | 1.86 |
| 13 (12;9-13;3) | 12.07 | 4.80 | 15.33 | 7.02 | 26.22 | 13.09 | 7.30. | 2.85 | 3.93 | 2.81 |

| Mazes in Narratives (100 Utterances) | | | | | | | | | | |
|---|-----------------------|------|--------------|-------|----------------|-------|--------------------------|------|----------------------|------|
| Age | Utterances with Mazes | | No. of Mazes | | No. Mazes Word | | % Maze words/Total Words | | Abandoned Utterances | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 3 (2;8 – 3;5) | 10.00 | 4.98 | 12.03 | 6.67 | 21.32 | 14.15 | 9.44 | 5.43 | 3.32 | 2.42 |
| 4 (3;9 – 4;4) | 13.74 | 5.45 | 18.89 | 9.20 | 39.63 | 22.61 | 12.81 | 5.83 | 2.19 | 2.17 |
| 5 (5;2-5;6) | 13.55 | 5.52 | 17.09 | 8.10 | 33.00 | 19.99 | 10.00 | 4.57 | 2.70 | 2.32 |
| 6 (5;7-6;5) | 17.11 | 6.61 | 23.58 | 11.51 | 50.84 | 31.02 | 13.04 | 5.52 | 2.22 | 1.95 |
| 7 (6;7-7;6) | 19.42 | 7.38 | 27.77 | 14.31 | 54.75 | 34.74 | 11.99 | 5.48 | 2.78 | 2.41 |
| 9 (8;9-9;5) | 17.33 | 6.12 | 22.41 | 9.54 | 42.81 | 18.33 | 9.30 | 3.76 | 2.48 | 2.17 |
| 11 (10;9-11;4) | 22.67 | 6.31 | 28.67 | 10.12 | 53.48 | 22.57 | 10.26 | 4.27 | 4.26 | 3.30 |
| 13 (12;9-13;3) | 19.00 | 4.47 | 26.19 | 8.35 | 46.59 | 18.02 | 9.30 | 3.00 | 4.15 | 2.98 |

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Table 6
Type Token Norms

| Total Number Of Words And Different Words In T-Unit Sample Based On 50 Utterances | | | | | |
|--|-----------|--------------|-------|-----------|-------|
| Age | Words | Conversation | | Narrative | |
| | | Mean | SD | Mean | SD |
| 3 | Total | 160.53 | 33.91 | 194.26 | 49.97 |
| | Different | 76.35 | 16.86 | 83.41 | 17.84 |
| 4 | Total | 195.78 | 60.68 | 257.19 | 48.17 |
| | Different | 92.07 | 24.41 | 108.26 | 17.75 |
| 5 | Total | 254.48 | 45.79 | 277.82 | 54.75 |
| | Different | 114.91 | 18.97 | 110.12 | 15.47 |
| 6 | Total | 251.83 | 59.93 | 325.31 | 80.25 |
| | Different | 112.95 | 20.53 | 121.44 | 21.11 |
| 7 | Total | 287.05 | 62.04 | 379.46 | 78.64 |
| | Different | 124.89 | 17.94 | 132.97 | 20.53 |
| 9 | Total | 311.70 | 66.61 | 419.41 | 73.43 |
| | Different | 133.48 | 21.48 | 133.26 | 25.11 |
| 11 | Total | 342.41 | 99.39 | 465.44 | 84.24 |
| | Different | 141.70 | 29.12 | 168.70 | 24.69 |
| 13 | Total | 330.15 | 78.92 | 447.96 | 72.02 |
| | Different | 139.00 | 24.92 | 159.11 | 21.17 |

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Controversy exists as to the criteria to use on language samples. Leadholm and Miller (1992) suggest that 1.5 to 2 standard deviations be used to determine language impairment. This manual recommends using 1.25 - 1.5 standard deviations as the difference of concern on standardized tests. In language sample analysis, determine that the TTR is below age expectations and that low language production results in an adverse effect on educational performance.

Table 7

| Repetition of Non-Words Assessment | | | | |
|---|----------------------------------|-------------------|--------------------|-------------------|
| Group | Percentage of Consonants Correct | | Standard Deviation | |
| | Normal Language | Language Impaired | Normal Language | Language Impaired |
| 1 syllable words | 91 | 86 | | |
| 2 syllable words | 92 | 83 | | |
| 3 syllable words | 90 | 68 | 4.5 | 10 |
| 4 syllable words | 71 | 50 | 5.5 | 7.5 |
| Total | 84 | 66 | 3 | 8.5 |