

## **Assessment Tools for Students who are Deaf or Hard of Hearing**

Recommended Assessment Tools: The specific tests listed under each area represent possibilities from which to choose. Many tests are usable only in part, such as the use of only visual or performance subtests from a more comprehensive standardized evaluation. Almost all evaluation tools require some form of modification which the evaluator must note in the student's record.

### **Cognitive/Intellectual Assessments**

Universal Nonverbal Intelligence Test (UNIT) – (Bracken & McCallum)- it is a set of individually administered specialized tasks. These tasks are designed to measure fairly the general intelligence and cognitive abilities of children and adolescents from ages 5-17 years who may be disadvantaged by traditional verbal and language loaded measures.

The Wechsler Intelligence Scale for Children –Fourth Edition (WISC-IV) – (David Wechsler) – individually administered clinical instrument for assessing the intellectual ability of children aged 6 years through 16 years, 11 months.

Kaufman Assessment Battery for Children (K-ABC) – (Alan S. Kaufman & Nadeen L. Kaufman)- assesses the intelligence and achievement of 2 ½ - 12 ½ -year-old children.

The Test of Nonverbal Intelligence-Third Edition (TONI-III) – (Linda Brown, Rita J. Sherbenou, Susan K. Johnson) – Language free measure of cognitive ability.

Comprehensive Test of Nonverbal Intelligence (CTONI) – (Donald D Hammill, Nils A Person, J. Lee Wiederholt) – also a language free measure of cognitive ability.

Cognitive Assessment System (CAS) – (Jack Naglieri, J.P. Das) – an assessment battery designed to evaluate cognitive processing in children 5-17 years of age. Derived from the Planning, Attention, Simultaneous, and Successive (PASS) theory.

The Battelle Developmental Inventory (BDI) – (Jean Newborg, John R. Stock, Linda Wnek) – a standardized individually administered assessment battery of key developmental skills in children from birth to 8 years-of-age.

Benton Visual Retention Test (BVRT) – (Abigail Benton Sivan) – assessment of short term visual memory.

Test of Visual Motor Integration (VMI) – (Keith E. Beery)- A developmental sequence of geometric forms to be copied with paper and pencil to assess visual perception and motor coordination

## **Psycho-social**

Meadow-Kendall Social/Emotional Assessment Inventory for Deaf Students (Meadow-Orlans)

Kinetic House-Tree Person Drawings – (Robert C. Burns) Projective drawings used to assess social emotional functioning.

Children's Apperception Test (C.A.T.) – (Leopold Bellak, Sonya Sorel Bellak) – an apperceptive method of investigating personality by studying the dynamic meaningfulness of individual differences in the perception of standard stimuli.

Children's Depression Inventory (CDI) – (Maria Kovacs) assessment to identify depression in children.

## **Behavior**

Conners' Rating Scales (C. Keith Conners) – Identifies a behavioral profile of a child in six specific areas based on responses from teachers, parents, or the child themselves.

Achenbach Child Behavior Checklist – (T.M. Achenbach) – Identifies a behavioral profile of a child in eight specific areas based on the responses from teachers, parents, or the child themselves.

## **Occupational Therapy**

The Gardner Test of Visual Motor Skills- Revised (TVMS-R) -Academic Therapy Publications, Novato, California For subjects ages 3-0 to 13-11 years.

The Beery-Buktenica Test Of Visual Motor Integration, 4th Edition (VMI)- Modern Curriculum Press- For subjects ages 3-0 to 17-11 years

The Gardner Test Of Visual Perceptual Skills- Revised (TVPS-R) Academic Therapy Publications, Novato, California -For subjects aged 4 years up to 12 years, 11 months.

The Developmental Test of Visual Perception- Second Edition (DTVP-2)- Pro Ed- For subjects 4 years up to 10 years, 11 months

The Peabody Developmental Motor Scale (PDMS-2)- Pro Ed- For subjects 15 days up to 71 months.

The Bruininks-Oseretsky Test of Motor Proficiency - American Guidance Service- 4 1/2 years old up to 14 1/2 years old

## **Expressive and Receptive Language:**

**Test of Auditory Comprehension of Language-Third Edition (TACL-3).** The TACL-3 measures a child's auditory comprehension skills including word classes and relations, grammatical morphemes, and elaborated sentences. The child is presented with a picture and points to the phrase or sentence that matches what he/she hears.

**The Screening Instrument for Targeting Educational Risk (S.I.F.T.E.R.) /The Preschool S.I.F.T.E.R.** The S.I.F.T.E.R. is used by the teacher to rate the child in comparison to other children in the classroom on 15 items. The responses are plotted on a chart which indicates pass, marginal or fail for each of the five areas of academics, attention, communication, classroom participation, and school behavior. If a child fails in a specific area, they should be referred for further evaluation. The Preschool S.I.F.T.E.R. was developed to be used with preschool children and is similar to the S.I.F.T.E.R.

**Cottage Acquisition Scales For Listening, Language, and Speech.** This curriculum includes a developmental checklist for assessment and planning for diagnostic therapy. The language section includes steps from pre-verbal through to complex sentences including pragmatic development.

**The Bzoch-League Receptive-Expressive-Language Test (REEL-2), 2 nd . Ed.** The REEL-2 is a scale designed for infants and toddlers up to 3 years of age. It measures and analyzes emergent language for intervention planning. Results are obtained from a parent interview and are given in terms of an Expressive Language Age, A Receptive Language Age, and a Combined Language Age.

**The Reynell Development Language Scales III (RDLS III), 3rd ed.** The RDLS III assesses receptive and expressive language using real objects rather than pictures for the child to interact with. It is designed for children from 15 months to 7 years of age. The comprehension scale comprises sections such as agents and actions, attributes, locative relations, vocabulary and complex grammar, and inferencing, etc. The expressive scale comprises sections such as verb phrases, auxiliaries, clausal elements, inflections, etc.

**The Preschool Language Scale-4 (PLS-4)** The PLS-4 is a standardized test of auditory comprehension and expressive communication for infants and toddlers. The auditory comprehension subscale assesses basic vocabulary, concepts and grammatical markers in preschool and higher-level abilities such as complex sentences, making comparisons and inferences, etc. in older children. The expressive communication subscale asks preschoolers to name objects, use concepts that describe objects, express quantity, use grammatical markers, etc. For older children it includes word segmentation, completing analogies, telling a short story in sequence, etc. This test also includes an articulation screener and a language sample checklist.

**Preschool-Clinical Evaluation of Language Fundamentals (CELF-P)** The CELF-P evaluates expressive and receptive language ability. It focuses on word meanings, word and sentence structure, and recall of spoken language. This tool was standardized for children ages 3 years, 0 months to 6 years, 11 months and uses pictures as stimulus for all three areas of language development. The linguistic concepts subtest evaluates the child's knowledge of modifiers and his/her ability to interpret one-level oral directions. The sentence structure subtest evaluates comprehension of early acquired sentence formation rules and the child's ability to comprehend and respond to spoken sentences. The recalling sentences in context subtest evaluates recall and repetition of spoken sentences. Formulating labels assesses the child's ability to name pictures. The word structure subtest assesses the child's knowledge and use of early acquired morphological rules and forms.

**The MacArthur Communication Development Inventory: Words, Gestures, and Sentences** These questionnaire/checklists ask parents to identify various words that their child either says or signs. It includes vocabulary relating to: things in the home, people, action words, description words, pronouns, prepositions, question words, as well as sentences and grammar.

**The Rossetti Infant-Toddler Language Scale: A Measure of Communication and Interaction** This scale assesses preverbal and verbal areas of communication and interaction including: Interaction-Attachment, Pragmatics, Gesture, Play, Language Comprehension and Language Expression. The examiner can directly observe or elicit a behavior from the child or use the caregiver's report to equally credit the child performance. Results reflect the child's mastery of skills in each of the areas assessed at 3 month intervals. A parent questionnaire with guidelines for parent interview is also included.

**Systematic Analysis of Language Transcripts (SALT)** A 30 minute play session is videotaped and every spoken and signed language utterance is transcribed. This analysis includes information regarding the number and types of spontaneous utterances that the child and caregiver produce. This analysis is intended to provide a portrait of the child's language, as well as the type of language the caregiver uses while communicating with the child. In order to measure the child's growth a videotape is made every six months.

**SKI-HI Language Development Scale** This scale is developmentally ordered and contains a list of communication and language skills in varying intervals for different ages. Each age interval is represented by enough observable receptive and expressive language skills to obtain a good profile of a child's language ability.

**Oral and Written Language Scales (OWLS)** The OWLS assesses higher order thinking, semantics, syntax, vocabulary, and pragmatics. It includes a Listening Comprehension Scale (picture pointing), an Oral Expression Scale (answering questions, and sentence completion) and a Written Expression Scale (use of conventions, syntactical forms, and ability to communicate meaningfully).

**Grammatical Analysis of Elicited Language, Pre-Sentence Level(GAEL-P)** This test contains three sections: readiness skills, single words, and word combinations. The examiner uses structured play and pictures to elicit language specific to these three areas. The test was developed for children with hearing loss and can be administered in spoken or signed English.

**Teacher Assessment of Grammatical Structures (TAGS)** The TAGS consists of rating forms to be completed by the therapist regarding the child's understanding of grammatical structures in sentences of at least four words that contain a subject and a verb. The grammatical categories are noun modifiers, pronouns, prepositions, adverbs, verbs, and questions.

Teacher Assessment of Spoken Language (TASL)

### **Auditory/Listening Skills:**

#### **Early Speech Perception Test (ESP) for Profoundly Hearing-Impaired Children.**

The ESP test battery is a test of speech perception for profoundly deaf children as young as 3 years of age. The ESP may be used to establish objectives and to measure the effects of a hearing aid or cochlear implant in terms of their impact on the child's speech perception ability. The kit includes a manual, response forms, box of toys, full-color picture cards and audiocassette.

#### **The Lexical Neighborhood Test (LNT) and the Multi-syllabic Lexical**

**Neighborhood Test (MLNT)** Lexical Neighborhood Test (LNT) and the Multi-syllabic Lexical Neighborhood Test (MLNT) are two new open-set tests of word recognition. The LNT and MLNT are based on the lexical characteristics of word frequency and neighborhood density, and include words found in the vocabularies of children age three to five. Studies have shown that normal hearing three- and four-year old children are able to recognize all the words from these two open-set speech perception tests at very high levels of performance. Therefore, these results have been used as a benchmark for children with hearing loss.

#### **Functional Auditory Performance Indicators (FAPI): An Integrated Approach to Auditory Development.**

The FAPI assesses the functional auditory skills of children with hearing loss. It examines seven categories of auditory development: sound awareness, sound is meaningful, auditory feedback, localizing sound source, auditory discrimination, short-term memory, and linguistic auditory processing.

#### **Meaningful Auditory Integration Scale (MAIS)/Infant-Toddler: Meaningful Auditory Integration Scale (IT-MAIS).**

These scales were developed for children who have a profound hearing loss and designed to be administered to parents by an audiologist. The parent is asked questions regarding use of amplification/cochlear implant and auditory behaviors regarding environmental and speech sounds.

**The Listening Inventory for Education: an Efficacy Tool (L.I.F.E.)** The L.I.F.E. is designed to determine amplification benefit and considers input from both the student and the teacher. The protocol also provides suggestions for intervention accommodations designed for the specific situations that are identified as problems.

### **Speech Skills. (suprasegmental, phonetic and phonologic development)**

**The Arizona Articulation Proficiency Scale-Third Edition** The Arizona-3 is a tool designed to identify misarticulations and total articulatory proficiency. The stimulus pictures show children in more current clothing styles and activities. The test materials also include ethnic diversity.

**The Goldman Fristoe: Test of Articulation 2** This test assesses a child's articulation ability by sampling both spontaneous and imitative speech production. Pictures and verbal cues are used to elicit single word answers that demonstrate common speech sounds. It measures the articulation of speech sounds and identifies and describes the types of articulation errors produced by the child.

**The Ling Phonetic-Phonologic Speech Evaluation Record: A Manual.** This tool is used to assess the segmental and nonsegmental aspects of speech at both the phonetic and phonologic levels. The phonetic level responses are obtained through imitation. Phonologic level responses are obtained from spontaneous language samples.

**Identifying Early Phonological Needs in Children with Hearing Impairment** This is a standardized test used to assess how young children with hearing loss spontaneously use first-level phonological patterns. It numerically rates whether the child's patterns are missing, emerging, or mastered.

**St. Gabriel's Curriculum for the Development of Audition, Language, Speech and Cognition.** This curriculum outlines the development of early speech, the development of early auditory feedback skills, and an order for the acquisition of vowels, diphthongs, and consonants. It also provides a developmental checklist of phonological processes.

**Cottage Acquisition Scales For Listening, Language, and Speech.** This curriculum provides a developmental checklist for assessment and diagnostic planning for therapy. The speech section tracks objectives from Phonetic-Phonologic Speech Evaluation Record and also links these objectives to phonetic listening development.

**Spoken Communication for Students Who are Deaf or Hard of Hearing: A Multidisciplinary** This curriculum includes a Student Speech Record (SSR) which is used to evaluate the following: non-verbal communication (attention, turn taking, eye contact, and breath support) and suprasegmentals, vowels and diphthongs, and

consonants at the phonetic, phonologic, and pragmatic levels. The SSR also includes an oral peripheral examination form.

**The Central Institute for the Deaf (CID) Picture Speech Intelligibility Evaluation (SPINE)** The SPINE uses colorful pictures to evaluate speech intelligibility in children as young as 6 years of age. The assessment package includes 300 full-color picture cards, a test manual, and 25 response forms.

**Paden-Brown Phonological Kit** This tool is designed to assess spontaneous use of first level phonological patterns in children with hearing loss. It utilizes a list of 25 words that are typically within the speaking vocabulary of young children with hearing loss.

### **Vocabulary:**

**Peabody Picture Vocabulary Test (PPVT-3)** The PPVT measures a child's understanding of individual words (receptive vocabulary). It is designed for children 2 years 6 months to 18 years of age. Raw test scores are converted into standard cores, percentile ranks and age equivalents.

The Expressive Vocabulary Test (EVT)

**Expressive One-Word Picture Vocabulary Test (EOWPVT)** The EOWPVT assesses a child's English speaking vocabulary by asking the child to name objects, actions and concepts pictured in illustrations. The test ends on 6 consecutive incorrect responses.

**Receptive One-Word Picture Vocabulary Test (ROWPVT)** The ROWPVT assesses a student's knowledge of vocabulary by asking the child to point to the object being named. The test ends when the child cannot correctly identify the pictured meaning of the word in 6 out of 8 consecutive items.

### **Test of Early Reading Ability-3rd ed (TERA-3)**

The TERA-3 measures reading ability of young children ages 3-6 through 8-6. Rather than assessing a child's reading readiness it assesses their mastery of early developing reading skills. The three subtests include: Alphabet (knowledge of the alphabet and its uses), Conventions (knowledge of the conventions of print), and Meaning (measuring the construction of meaning from print). An overall Quotient is computed using all three subtest scores.

### **Basic Concepts:**

**Boehm Test of Basic Concepts-Revised (BTBC-R)** The BTBC-R is administered to children in Kindergarten, 1st, and 2nd grade (and older children who are deaf or hard of hearing) and tests basic concepts of comparison, direction, position, quantity, and time.

**Bracken Basic Concept Scale-Revised (BBCS-R)** The BBCS-R measures basic concept acquisition and receptive language skills of children from 2 years, 6 months to 8 years of age. It includes eleven conceptual categories-colors, letters, numbers, counting, sizes, comparisons, shapes, direction/position, self/social awareness, texture/materials, quantity, and time/sequence.

### **Sign Language:**

**Checklist of Emerging ASL Skills** Available in: Easterbrooks, S & Baker, S. **Language Learning In Children Who Are Deaf And Hard Of Hearing: Multiple Pathways.** (2002) Allyn and Bacon, Boston, Mass. This checklist provides a series of indicators to judge whether a deaf child has components of ASL in his or her communication system. The evaluator should not judge a child's skills based on English ability. The focus should be on ASL. The checklist should be filled out by at least three different evaluators who are familiar with the child and who are proficient in ASL.

**ASL Development Observation Record** Available through: ASL Resource Teacher, Early Childhood Education Program, California School for the Deaf, Fremont (CSDF), 39350 Gallaudet Drive, Fremont, CA 94538 (510) 794-2536 This tool was developed by the Early Childhood Education program at the CSDF to document the ASL language development of deaf children from the time they entered the program to Kindergarten. The goal of the observation record is to identify the language strengths and needs of each child and to document the progress made over the time spent in the Early Childhood Education program. This record also serves as a guide for teachers in assessing their role as language models and how they use language with the children.

**The American Sign Language Proficiency Assessment (ASL-PA)** Available by contacting: Dr. Sam Supalla, Department of Special Education, Rehabilitation, and School Psychology, College of Education, University of Arizona, Tucson, AZ 85721 (520) 621-9466 (TTY) E-mail: [ssupalla@u.arizona.edu](mailto:ssupalla@u.arizona.edu) The ASL-PA globally assesses the expressive ASL skills of children ages 6-12 years of age. Items/target features are based on ASL acquisition studies. Language samples are elicited from varied discourse contexts. There are no sample norms presently available.

**Test of American Sign Language (TASL)** Available by contacting: Dr. Philip Prinz, Department of Special Education and Communicative Disorders, San Francisco State University (415) 338-7655 E-mail: [pm@sfsu.edu](mailto:pm@sfsu.edu) The TASL consists of two production measures (Classifier Production Test, and Sign Narrative) and four comprehension measures (Story Comprehension, Classifier Comprehension Test, Time Marker Test, and Map Marker Test). It is designed to be used with deaf students ages 8-15 years.