



# SKI-HI Language Development Scale (LDS)

WREIC

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# Language Development Scale: Purpose

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- Designed to assist Early Interventionists and teachers in determining a child's present level of function and ensure chronological age language progression in both spoken and signed language
- Created to assess language development for infants, toddlers and preschoolers ages birth through age 5 (0-60 months)



# Designed To Assess Development And Assist With Programming

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- Gives equal value to signed versus spoken language
- Criterion referenced
- Easy to administer
- Inexpensive to administer – One test booklet can be used for the entire time a child is involved in early intervention
- Can be used frequently without invalidating results

# Why Update?

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- While the old tool gives equal value to signed and spoken language, updated details regarding the development of ASL were not available during the last revision
- Clarification of terms that can be misconstrued (frequently, occasionally, etc.)
- Clarification of instructions for administration
- Guidelines for identifying skills that should be targeted next in programming
- Guidelines for best ways to administer
- Guidelines for administration of the tool for young infants

# Review Of The Original Tool

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# Language Development Scale (LDS)

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- The LDS is a criterion-referenced language assessment tool

So what does that mean?

# Criterion-Reference vs. Norm-Reference

- **Criterion-referenced observational Assessment Tool**

Measure child skill, ability or performance against a fixed set of criteria – for the LDS that set of fixed criteria is typical developmental milestones for communication and language development

- **Norm-referenced assessment**

Compare a child's skills to the skills of a norm group. A norm group is **typically composed of a nationally representative sample of several thousand children** who are the same age and who share the same language, socioeconomic level, race/ethnicity or other characteristics. Children are compared to the norm group on a “bell curve”

# Standardized Test

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- \*Requires all children taking the test to answer test questions in the same way
- \*Is administered and scored in a standardized way which makes it possible to compare the performance of individual children by eliminating variances in the testing process



# Criterion Measures

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LDS was developed by utilizing 19 developmental scales as criterion sources, 4 of those sources were norm-referenced

- LAP (Learning Accomplishment Profile)
- PLS (Preschool Language Scale)
- REEL (Receptive-Expressive Emergent Language Scale)
- Vineland Social Maturity Scale

\*Each item on the LDS was cross-referenced by at least three references from these 19 developmental scales to items at that same age level

# Reliable and Valid – Reliability Measures

Three procedures were completed to determine the reliability of the tool:

1. Determined the percentage of agreement among a group of raters on units and items of the Language Development Scale
2. Determined the correlation between two separate occasions of each rater's scoring – same video sample
3. Determined an estimate of the internal consistency of the LDS was analyzed using completed assessments on over 115 children

*\*Reliability testing through inter-rater reliability measures*

*Expressive Scale Units – Reliability coefficient of .94*

*Receptive Scale Units – Reliability coefficient of .93*

# Reliable and Valid – Validity Measures

Two validity procedures were used:

1. Estimation of the concurrent validity (how well it compared with an established test) of the LDS was obtained by correlating the child's score on the LDS with the same child's score on the REEL (Bzoch-League Receptive-Expressive Emergent Language Scale)
2. Estimation of the construct validity (does it measure what it claims to measure) of the LDS was obtained from completed LDS assessments (*.99 coefficient of reproducibility for both receptive and expressive language scales*)

# Revision Process



# To Preserve Reliability and Validity Measures

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- Items on the assessment were not altered as it relates to the criterion of language development, as those milestones have not changed since the creation of the original tool
- Revisions are restricted to the clarification of specifics as it relates to the development of early development of ASL skills

# Establishing A Reference for Early ASL Development

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- To date, no nationally agreed upon standard exists for the development of early ASL (no normative data), though we do have tools that provide guidelines
- Research studies on early ASL development
- Several schools for the deaf have created their own checklists
- Some tools exist currently that are still in development that are evaluating early ASL milestones

# ASL Milestones Were Compared From The Following Tools:

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- ASL Development Checklist. 2010, June. Washington, DC: Laurent Clerc National Deaf Education Center.
- ASL Development Observation Record. n.d. Fremont: California School for the Deaf–Fremont.
- ASL Developmental Milestones. 2003. Toronto: Canadian Cultural Society of the Deaf and the Ontario Society of the Deaf.
- ASL Developmental Stages. n.d. Columbus: Ohio School for the Deaf
- Visual Communication and Sign Language Checklist, 2013. Washington, DC: Gallaudet University.
- Bimodal Bilingual Development Scale, 2008. Australia.

# Administration Changes

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## What Remains the Same?

- Still a parent report assessment
- Still a checklist
- Still uses a plus (+) for a skill that is present and a (-) for a skill that is not present

## What is New?

- Not left with the parent with the expectation that they parent will complete it during the week
- Early Interventionist/Teacher explains and gives examples of each skill; ensures validity of skills
- Emerging skills are indicated with a dash that has an “e” written above the dash (<sup>e</sup>-)
- Guidelines given for ensuring all skills are credited over time



# New Administration Guidelines:

- Compute average language age from the Expressive and Receptive Language scores
- Review the assessment with parents and give them either their own assessment tool or copies of pertinent pages of the tool the week prior to doing the assessment (please remember and honor copyright laws)
- Do the assessment together with the parents as a team, using it as a tool to teach as well as assess
- Feel free to ask the parent for examples or ask “do you think she would do that for us now?” if you are unsure if the child has acquired the skill

# Scoring

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## What Remains the Same?

- Assessment still broken down by units, then age equivalent assigned after scoring
- Date of assessment, chronological age, hearing age, expressive language age and receptive language age still provided
- Recording page still provided at the beginning of each test booklet

## What is New?

- Unit to age equivalent score guide will be opposite the recording page so age equivalents can be more easily assigned at testing
- Space provided to calculate and record “Average Language Age”
- Guidelines provided for explaining language assessment scores to families

# New Administration Guidelines:

- In the first 18 months of life, assess every 3 months, report every 6 months
- Use a different colored ink every time you assess – go back and see if “dashes” are now acquired
- Use the terms plus (+) and dash (-) for the marks on the LDS rather than pass or fail
- Explain what emerging means and focus on those skills as you plan future topics to teach family

# Same Scoring Guidelines

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- Assessment broken down into units rather than ages, then age equivalents determined after scoring
  - 0-2 years of age, skills are listed in two-month intervals
  - 2-4 years of age, skills are listed in four-month intervals
  - 4-5 years of age, skills are listed in six-month intervals

# Same Scoring Guidelines – Basal/Ceiling

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- Determining Basal – half or more of items in the unit are achieved by the child
- Determining Ceiling – more than half of the items in the unit are not yet acquired



# Same Guidelines to Determine Where to Start

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- Child is vocalizing but has no gestural, verbal or sign language – begin with Units 1-3
- Child is primarily using gestures (maybe some signs or spoken words) with limited vocalizing – begin with Units 5 and 6
- Child is beginning to use words or signs – begin with Units 5, 6, 7 and 8
- Child is using two- and three-word sentences – begin with Units 11 and 12

# Skills/Knowledge Needed by Assessor

- Knowledge of early childhood development
- Working knowledge of infant, toddler and preschooler linguistic developmental milestones in spoken language and sign language/ASL
- Experience working with parents – excellent communication skills with adults; can ask appropriate questions without offending or making parents feel defensive
- Can deliver assessment results in a way that encourages parent involvement and consideration
- Experience giving assessments
- Knowledge of the LDS tool and subtleties of similar questions between units

# Skills/Knowledge Needed by Assessor

- Experience working with children – knows how to get a child to perform a skill
- ASL fluency/Spoken language fluency – for bilingual or multilingual children you may need to assess with a deaf/hearing team
- Ideally assessor will be fluent in the home language of the family, if not interpreters can be used
- Assessor will match the language and modality of the parent(s) or caregiver(s) or use an interpreter if not fluent in the family/caregiver language



# Language Development Scale

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- Excellent tool to program and plan for child progress and partner with families to understand child development and create effective IFSP and IEP goals



# Goal Writing Support – How?

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- Complete the assessment to get current levels
- Move forward from the child's current level of development to skills the child should acquire within 6 months time
- Review skills with the parents or caregivers to allow them to see what their child's skill level should be in 6 months time, then write goals with them based upon those expected milestones

# Inexpensive Assessment Tool

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Instruction Manual - \$12.00 per manual

Protocols - \$2.00 per protocol (minimum of 10 required per purchase)

\*\*Each provider will need an instruction manual, each child will need their own protocol

# Some Examples of Changes- Expressive Language:

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Current Tool – Expressive Unit 3	Revised Version – Expressive Unit 3
<p>1. Adds sounds like p, b, m to babbling.</p>	<p>1. Adds sounds like p, b, m to vocal babbling and/or adds more hand shapes to manual babbling, using the “A” hand, “S” hand, and “5” hand. Will continue making other hand movements like opening and closing hands and/or wiggling fingers.</p>

# Some Examples of Changes- Receptive Language:

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Current Tool – Receptive Unit 3	Revised Version – Receptive Unit 3
<p>1. Responds to own name when called (signed) some of the time by stopping activity, smiling or looking at person.</p>	<p>1. Responds to own name when called, signed or fingerspelled some of the time by stopping activity, smiling or looking at person.</p>

# Some Examples of Changes – Expressive Language:

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Current Tool – Expressive Unit 9	Revised Version – Expressive Unit 9
<p>2. Uses words (signs) most of the time (rather than gestures) to indicate needs (such as “cookies,” “milk”).</p>	<p>2. Uses words and/or signs most of the time (rather than gestures) to indicate needs (such as “cookies,” “milk”). Baby signs begin to look more like true signs (location of sign correct, movement of sign 50% accurate; handshape correct 25% of the time).</p>

# Some Examples of Changes – Receptive Language:

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Current Tool – Receptive Unit 9	Revised Version – Receptive Unit 9
No item # 6	Added item # 6 – Understands up to 75 words or signs.

# Some Examples of Changes - Expressive:

Current Tool – Expressive Unit 14	Revised Version – Expressive Unit 14
<p>7. Gives full name when asked (word or sign)</p> <p>10. Repeats nursery rhymes, finger plays or jingles using words or signs.</p> <p>13. Uses “a” and “the” correctly spoken or signed.</p> <p>14. Uses past tenses (often incorrectly, such as “I felled”) (said or signed).</p>	<p>7. Gives full name (spoken/name sign/fingerspells name)</p> <p>10. Repeats nursery rhymes, finger plays or jingles using words and/or signs (eg. Handsland rhymes)</p> <p>13. Uses “a” and “the” correctly if using spoken or signed English.</p> <p>14. Uses past tenses (often incorrectly, such as “I felled” in either spoken or signed English. Children using ASL will begin to use past tense or time markers inconsistently.</p>



# Some Examples of Changes - Expressive:

Current Tool – Receptive Unit 14	Revised Version – Receptive Unit 14
7. Gives full name when asked (word or sign).	7. Gives full name when asked (sign, word or fingerspelled).

# Some Examples of Changes - Expressive:

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Current Tool – Expressive Unit 20	Revised Version – Expressive Unit 20
<p>5. Asks serious and complex questions (“What is this for?” “What does that mean?”) in words or signs.</p>	<p>5. Asks serious and complex questions (“What is this for?” “What does that mean?” “Why did that happen?”) in words or signs.</p> <p>New item - 10 Uses comparatives (better/best/worst). For children using ASL, uses “role shift” to describe comparatives or to refer two separate people).</p>

# Available When?

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- We anticipate the new revised tool will be available in February 2020

# Other Materials Currently Being Revised at SKI-HI:

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- Cochlear Implant and Hearing Aid sections of the SKI-HI Curriculum
- New Early ASL Program
- Deaf Mentor Curriculum Manual and teaching materials
- Deaf Mentor Trainer's Manual – Training of State Trainers will begin Fall of 2020

# The End!

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Questions???

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