

Maximizing Assessment Data to Monitor Progress and Develop Language Goals

EHDI

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Assessment Instrument



MacArthur-Bates Communicative
Development Inventories

Inventories and Age Ranges

- Words and Gestures
8 to 18 months language level
- Words and Sentences
16 to 30 months language level

Selecting Appropriate Form

Girl's expressive vocabulary is:

0 to 69 words – Words and Gestures

70+ words – Words and Sentences

Boy's expressive vocabulary is:

0 to 49 words – Words and Gestures

50+ words – Words and Sentences

Words and Gestures

- 8 to 18 months language level
- Areas assessed
 - Comprehension of phrases
 - Vocabulary comprehension
 - Expressive vocabulary (396 words)
 - Communicative gestures
 - Symbolic gestures/pretend play

3. Vehicles (Real or Toy) (9)

understands says signs				understands says signs				understands says signs			
airplane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	car	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	stroller	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bicycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	firetruck	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	train	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	motorcycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	truck	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Toys (8)

understands	says	signs	understands	says	signs	understands	says	signs			
ball	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	book	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	pen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
balloon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	bubbles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	toy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
block	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	doll	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				

5. Food and Drink (30)

	understands	says	signs		understands	says	signs		understands	says	signs
apple	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	chicken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	meat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
banana	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	coffee	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	milk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bread	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	cookie	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	noodles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
butter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	cracker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	orange	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cake	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	drink	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	peas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
candy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	egg	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	pizza	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
carrots	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	fish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	raisin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cereal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	spaghetti	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cheerios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	ice cream	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	toast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A. First Communicative Gestures

When infants are first learning to communicate, they often use gestures to make their wishes known. For each item below, mark the line that describes your child's actions right now.

	Not Yet	Sometimes	Often
1. Extends arm to show you something he/she is holding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Reaches out and gives you a toy or some object that he/she is holding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Points (with arm and index finger extended) at some interesting object or event.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Waves bye-bye on his/her own when someone leaves.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Extends his/her arm upward to signal a wish to be picked up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Shakes head "no".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Nods head "yes".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Gestures "hush" by placing finger to lips.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Requests something by extending arm and opening and closing hand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Blows kisses from a distance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Smacks lips in a "yum yum" gesture to indicate that something tastes good.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Shrugs to indicate "all gone" or "where'd it go".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. Games and Routines.

Does your child do any of the following?

	No	Yes
1. Play peekaboo.	<input type="radio"/>	<input type="radio"/>
2. Play patty cake.	<input type="radio"/>	<input type="radio"/>
3. Play "so-hi".	<input type="radio"/>	<input type="radio"/>

Words and Sentences

- 16 to 30 months language level
- Areas assessed
 - Expressive vocabulary (680 words)
 - Semantic functions (how child uses words)
 - Word endings
 - Irregular nouns and verbs
 - Sentence length/complexity

Small Household Items (50)

	says	signs		says	signs		says	sign
basket	<input type="radio"/>	<input type="radio"/>	glasses	<input type="radio"/>	<input type="radio"/>	plate	<input type="radio"/>	<input type="radio"/>
blanket	<input type="radio"/>	<input type="radio"/>	hammer	<input type="radio"/>	<input type="radio"/>	purse	<input type="radio"/>	<input type="radio"/>
bottle	<input type="radio"/>	<input type="radio"/>	jar	<input type="radio"/>	<input type="radio"/>	radio	<input type="radio"/>	<input type="radio"/>
box	<input type="radio"/>	<input type="radio"/>	keys	<input type="radio"/>	<input type="radio"/>	scissors	<input type="radio"/>	<input type="radio"/>
bowl	<input type="radio"/>	<input type="radio"/>	knife	<input type="radio"/>	<input type="radio"/>	soap	<input type="radio"/>	<input type="radio"/>
room	<input type="radio"/>	<input type="radio"/>	lamp	<input type="radio"/>	<input type="radio"/>	spoon	<input type="radio"/>	<input type="radio"/>
brush	<input type="radio"/>	<input type="radio"/>	light	<input type="radio"/>	<input type="radio"/>	tape	<input type="radio"/>	<input type="radio"/>
bucket	<input type="radio"/>	<input type="radio"/>	medicine	<input type="radio"/>	<input type="radio"/>	telephone	<input type="radio"/>	<input type="radio"/>
camera	<input type="radio"/>	<input type="radio"/>	money	<input type="radio"/>	<input type="radio"/>	tissue/kleenex	<input type="radio"/>	<input type="radio"/>
fan	<input type="radio"/>	<input type="radio"/>	mop	<input type="radio"/>	<input type="radio"/>	toothbrush	<input type="radio"/>	<input type="radio"/>
lock	<input type="radio"/>	<input type="radio"/>	nail	<input type="radio"/>	<input type="radio"/>	towel	<input type="radio"/>	<input type="radio"/>
comb	<input type="radio"/>	<input type="radio"/>	napkin	<input type="radio"/>	<input type="radio"/>	trash	<input type="radio"/>	<input type="radio"/>
cup	<input type="radio"/>	<input type="radio"/>	paper	<input type="radio"/>	<input type="radio"/>	tray	<input type="radio"/>	<input type="radio"/>
fish	<input type="radio"/>	<input type="radio"/>	penny	<input type="radio"/>	<input type="radio"/>	vacuum	<input type="radio"/>	<input type="radio"/>
fork	<input type="radio"/>	<input type="radio"/>	picture	<input type="radio"/>	<input type="radio"/>	walker	<input type="radio"/>	<input type="radio"/>
garbage	<input type="radio"/>	<input type="radio"/>	pillow	<input type="radio"/>	<input type="radio"/>	watch	<input type="radio"/>	<input type="radio"/>
grass	<input type="radio"/>	<input type="radio"/>	plant	<input type="radio"/>	<input type="radio"/>			

E. Complexity

In each of the following pairs, please mark the one that sounds/looks **MOST** like the way your child talks/signs right now. If your child is saying/signing sentences more complicated than the two provided, just pick the second one.

1. Two shoe. Two shoes.	<input type="radio"/> <input type="radio"/>	2. Two foot. Two feet.	((
3. Daddy car. Daddy's car.	<input type="radio"/> <input type="radio"/>	(Talking about something happening right now.) 4. Kitty sleep. Kitty sleeping.	((
(Talking about something happening right now.) 5. I make tower. I making tower.	<input type="radio"/> <input type="radio"/>	(Talking about something that already happened) 6. I fall down. I fell down.	((
7. More cookie! More cookies!	<input type="radio"/> <input type="radio"/>	8. These my tooth. These my teeth.	((
9. Baby blanket. Baby's blanket.	<input type="radio"/> <input type="radio"/>	(Talking about something that already happened) 10. Doggie kiss me. Doggie kissed me.	((
(Talking about something that already happened) 11. Daddy pick me up. Daddy picked me up.	<input type="radio"/> <input type="radio"/>	(Talking about something that already happened) 12. Kitty go away. Kitty went away.	((

Instructions to Parents

- Can rely only on instructions on form
- Can provide supplemental instructions
 - Verbally
 - In writing
- Words and Sentences: Go over section where parent picks one of two sentences varying in complexity (often misunderstood)

Discussing Inconsistencies

- Opportunity to learn something you may have been unaware of
- Opportunity to improve parents' observational skills of child's language
 - “I see you marked that Anna says ‘now’. Can you give me an example of a situation when she said/signed that word?”

Interpreting Results

Compare subscale scores

- Hearing children typically show approximately equivalent scores across all sections

Interpreting Results

- Comprehension vs. production
 - If delays exist in both, more significant problem than if only production delays

Interpreting Results

- Gestures vs. linguistic items
 - Gestures often indication of more general cognitive ability
 - Cognitive red flag if gesture scores are substantially below CA
 - Cognition should predict linguistic ability
 - Language red flag if gesture scores significantly exceed linguistic scores

Interpreting Results

- Single words vs. word combinations
 - By the time child produces 50 words, word combinations are expected
- Use of irregular forms (e.g., men, ran)
 - Expected at about 2 years of age
 - Not relevant to families using ASL only

Interpreting “often”, “sometimes”, “not yet” items

- Using the tables in the manual (see handouts):
 - Compare child’s status with percentage of age-mates who received an “often” or “sometimes” response

Using Results to Guide Intervention

- Assessment results provide data needed to advocate for appropriate IFSP goals
- Measureable goals are possible because child is assessed at regular intervals
- Track child's progress over time
 - Vocabulary size growth
 - Months of development

Using Results to Guide Intervention

- Evaluate communication approach being used (# of words signed vs. spoken)
- Provide parent education
 - significance of vocabulary development for future academic success
 - Importance of having more than labels
 - Setting the bar

Using Results to Guide Intervention

- Setting the Bar: Information from normative tables can help interventionists and parents understand the magnitude of vocabulary growth needed per month
 - From 16 to 30 months children learn to produce an average of 37 words a month

Using Results to Guide Intervention

- Setting the Bar: Language demands increase exponentially after 18 mos of age
 - Average expressive vocabulary size at:
 - 12 months = 5 words
 - 18 months = 85 words
 - 24 months = 300 words

Using Results to Guide Intervention

- Obtain ratio of nouns to “other” words (see handout)
 - Should be between .3 and .6
 - That is, for every 10 nouns a child produces, he/she typically produces between 3 and 6 other types of words
 - Deaf/hoh children are often “noun heavy”
 - Focus on vocabulary in semantic categories where child’s scores are low

Emma: IFSP Goal #1

Goal: Emma will communicate her basic needs and wants during playtime through gestures, vocal approximations, and words/signs

Strategies:

- Pair activity with repetitive language
- Use children's books, music, and finger play to encourage expressive language
- Wait time; wait expectantly for Emma to respond
- Learn and use sign vocabulary relevant to daily routines

Emma: IFSP Goal #2

Goal: Emma will consistently follow basic one step directions

Strategies:

- Use auditory cues to support transitions
- Begin with directions that are predictable w/ visual support and progress to simple, functional directions that are auditory only
- Teach basic prepositions: up/down, in/out, off/on during play

Nicholas: IFSP Goal #1

Goal: Nicholas will be able to answer simple who, what, where, and yes/no questions.

Strategies:

- Consistent use of amplification
- Parents will learn and use 10 new signs a week in daily routines.
- Use children's books to model asking and answering questions
- Play games involving questions

Nicholas: IFSP Goal #2

Goal: Nicholas will consistently use 2 and 3 word phrases in his communication.

Strategies:

- Expand his language by using the “one plus” rule.
- Use language experience books to support vocabulary growth
- Use silly sabotage in play activities
- Talk about what you are doing; act as narrator
- LENA will be used monthly to monitor growth

Using Results to Guide Intervention

- To see which words are typically known at each age level go to:
 - <http://wordbank.stanford.edu/>
- Lists the percentage of children comprehending or producing each individual word at each age
- Can search database by age level, semantic category, specific words, or word frequency