Goal: To introduce participants to the key aspects of the assessment of communication, language and speech development in Level 4 of the DIR® model.
Members of the SLP Working Group

- Thank you to the members of the Profectum SLP working group for their extraordinary commitment to and generous participation and collaborative effort over the past year.

The Language Acquisition Process

- Communication – language – speech
- Engagement -> Intentionality -> Shared Ideas -> Comprehension -> Production
Six Core Functional Social and Emotional Developmental Capacities (FEDL)

Level 1: Regulation and Shared Attention 0-3 mos
Level 2: Mutual Engagement 2-5 mos
Level 3: Intentional Two-Way Purposeful Communication 4-10 mos
Level 4: Complex Problem-Solving, Sense of Self 10-18 mos
Level 5: Symbolic Thinking/Language/Emotions 18-30 mos
Level 6: Building Bridges/Abstract Thinking 30-42 mos

“Climbing the Developmental Ladder”

LEVEL 4

Complex Problem Solving/Sense of Self (10-18 months):

The child engages in a continuous flow of back and forth circles of communication. These are now complex organized problem solving, affective interactions. The child is able to use and respond to the social cues of his communicative partner.
Intentionality - By 18 months, the toddler….

- Responds to others’ intentions to regulate behavior (e.g., responds to “no, no” said with a warning tone or “get your diaper.”).
- Responds to other’s intentions to draw attention to themselves (e.g., responds to Daddy saying “bye-bye” or “come give me a kiss”).
- Responds to others’ intentions to draw attention to objects (e.g., looks at what mom points to).
• Expresses intentions with gestures, sounds and words to:
  – Regulate behavior (e.g., says “no” and shakes head to protest).
  – Draw attention to self (e.g., says “bye-bye” and waves).
  – Draw attention to objects of interest (e.g., uses a point gesture to get another person to look at an object).

Shared Ideas and Meanings and Play
• At this point in the child’s development, shared ideas and meanings can be assessed by looking at the child’s play.
• Throughout development, the assessment of the child’s play is a window into his ideas and meanings.
• For children whose language abilities are limited, play may be the best way to assess the child’s ideas, i.e., his knowledge of the world.
• Over time, the assessment of the child’s play becomes a major part of the communication, language, and speech assessment.
• For many children, play goals are prerequisite and co-requisite to working on higher levels of language.
**Shared Ideas and Meaning**

**By 18 months, the toddler....**

- Likes to imitate things that Mommy does – sweep with the toy broom, talk on the toy phone, throw things in the garbage.
- Imitates actions that she has experienced – puts her blanket on the bear.
- Explores toys trying to figure out how they work – where does the man go when I put him in the hole, how can I spill the milk out of the sippy cup, how do I get the guy back in the jack-in-the-box.
- Plays with toys in new ways – throws the ball in the basket, puts things in the pail and dumps them out.
- Likes doing things over and over – fill the pail and dump it over.

---

**Typical Development – 15 month old**
In this video we saw…

• .... The toddler imitate things he has seen his mommy do before (put keys in the car).
• ... The toddler imitate actions he has experienced before (getting into the car).
• ....The toddler show curiosity when looking for the key.

Comprehension Versus Comprehension Strategies
Comprehension

• It is the ability to interpret and make sense of spoken or written language. (Miller and Paul, 1995).

• It is the ability to understand words and sentences (understand meaning from combinations of words).

• It is the ability to use context when introduced to language beyond your linguistic level. (comprehension strategies)

Miller and Paul, 1995

Comprehension Strategies

• The ways in which the child uses the context when responding to words and sentences that are beyond his or her linguistic level.

Miller and Paul, 1995
Comprehension
By 18 months, the toddler….

• Understands words for familiar objects often (shoe, bottle, diaper, truck, baby)
• Understands how to take turns in exchanges with others. (Gestures and/or vocalizes when Mommy says “Time to get shoes.”)
• Will get familiar objects when asked if objects are in their view (Responds by getting diaper when it is in their sight)

(Miller and Paul, 1995; DMIC, 2005)

Comprehension
By 18 months, the toddler….

• Will perform some actions when asked (hugs baby doll, opens door, throws ball).
• Knows names of familiar people (Mommy, Daddy, Grandma, sibling names, Nanny/caregiver).
• Responds to their own name.

(Miller and Paul, 1995; DMIC, 2005)
Typical development – 20 month old

In this video, we saw.....

• ... The toddler understands words for familiar objects.
• ... The toddler understands how to take turns in exchanges with his caregiver.
• ... The toddler understands "where" means "you have to look around."
Early Comprehension Strategies
By 18 months, the toddler….

• Looks at things that partner looks at. (Looks at the mobile in her room when Mommy looks up towards it).
• Does something with the objects they have in front of them. (picks up, gives, shakes, and/or shows objects others are talking about.)
• Does what you would normally do with objects. (Puts blocks into containers, eats pretend food, throws balls, opens books, opens and closes doors / cabinets.)
• Imitates ongoing action. (Watches and then does actions others are doing – watches mommy moving truck back and forth and begins to move trucks in same way, watches mommy eat play food and puts food to their own mouth to eat.)

Typical development — 13 month old

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In this video, we saw....

• ..... The toddler looks at things that his partner looks at (looks at hamster).
• ..... The toddler does something with the object he has in front of him (shakes hamster, shows hamster).
• ..... The toddler responds to words in context that he understands (stairs).

Production

• The child must construct and hold an intentional state representation in mind.
• The child must retrieve linguistic units and procedures from memory.
• The child must articulate the words.
Production

- Form
- Content
- Use

Lahey, 1988

Form

- **Form** – the shape of language

1. Phonology – the categorization of the sounds of the language spoken.
2. Morphology – the words and inflections of the language (ed, ing, plural s)
3. Syntax – the way words are arranged according to the meaning relations between them.

Lahey, 1988, p. 12-14
Production – Form
By 18 months, the toddler…

- Spontaneously imitates a variety of familiar sounds, word approximations, and words.
- Spontaneously imitates a variety of new sounds, word approximations, and words.
- Uses 10-50 different single words utterances.

Lahey, 1988

Content

- **Content** – ideas and meaning

1. Content is the meaning (semantics) expressed by the words used in the language spoken.
2. Content expresses the relations that exist between objects, actions and events.

Lahey, 1988
Production – Content
By 18 months, the toddler….

- Uses words to express a variety of meanings:
  1. Recurrence – more
  2. Existence – cookie, that
  3. Non-existence – all gone
  4. Rejection – no
  5. Action - go
  6. Locative action – up

Lahey, 1988

Use

Use – the function of language and its relations to the everyday contexts.

1. The use of language for different goals or functions. Functions of language are the reasons why we speak and listen to others.
2. The use of information from the context to determine what we say in order to achieve our goals as speakers.
3. The use of the interaction between persons to begin, maintain and end conversations.

Lahey, 1988
Production – Use
By 18 months, the toddler...

- Uses words for the purpose of: commenting, directing others, calling or getting attention, protesting, obtaining objects, getting another to respond, responding to others, playing with sounds, greeting.
- Uses words to talk about objects and events that are ongoing and present, to talk about what the child is doing, to attempt to clarify the listener’s understanding upon request.
- Uses words following another’s that are:
  1) exact imitations,
  2) add a related word, or
  3) are related to the same context.

Lahey, 1988

Typical Development – 20 month old

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In this video, we saw....

• .... The toddler imitates words.
• .... The toddler spontaneously uses different single words.
• .... The toddler uses words to express a range of meanings (existence, action, attribute, recurrence).
• .... The toddler uses a range of functions (comments, directs others, obtains objects).
• .... The toddler talks about objects and events that are present.

A Checklist for Clinicians

What assessment questions should we ask about each child’s communication, language, and speech?

* The checklist presented here was developed by Gerber, Cervenka & Ricamato, 2012 and is based on information from research on typical communication, language, and speech development.
# FEDL 4

## Level 4 – Complex Problem-Solving, Sense of Self

<table>
<thead>
<tr>
<th>Area of Development</th>
<th>Question</th>
<th>Rating (0-5) Not Present Emerging Consistent</th>
<th>Partner Caregiver</th>
<th>Partner Clinician Teacher Other</th>
<th>Context Home</th>
<th>Context School Clinic Other</th>
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<tbody>
<tr>
<td>Intentionality (By 18 months)</td>
<td>Does the child respond to others’ intentions to regulate their behavior?</td>
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<td>Does the child respond to others’ intentions to call attention to themselves?</td>
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<td>Intentionality</td>
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<td>Does the child express intentions to regulate another's behavior?</td>
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<td>Does the child express intentions to call attention to themself?</td>
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<td>Does the child express intentions to call attention to objects of interest?</td>
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<td>Does the child want to figure out how things work?</td>
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<td>Does the child like to imitate what the caregiver does?</td>
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<td>Does the child show curiosity about his world?</td>
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<tr>
<td>Shared Ideas and Meanings (By 18 months)</td>
<td>Does the child enjoy doing things over and over?</td>
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Video – Joseph (5 years old)
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<th>Area of Development (By 18 months)</th>
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<th>Rating (0-5) Not Present Emerging Consistent</th>
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Comprehension (By 18 months) Does the child respond to another’s attempts to get them to do something?

Comprehension (By 18 months) Does the child respond to another’s attempts to gain their attention?

Comprehension (By 18 months) Does the child respond to another’s attempts to get them to look at something?

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Comprehension (By 18 months) Does the child understand and respond to some action words?

Comprehension (By 18 months) * Does the child use strategies when they don’t understand?

Comprehension Strategies (By 18 months) * - Do what is normally done - Acts on objects at hand

* Based on Miller and Paul, 1995
| Area of Development | Question                                                                 | Rating (0-5)
Not Present
Emerging Consistent | Partner Caregiver | Partner Clinician Teacher Other | Context Home | Context School Clinic Other |
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<td>Production (By 18 months)</td>
<td>Does the child use 10-50 different single word utterances?</td>
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| Area of Development | Question                                                                 | Rating (0-5)
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Emerging Consistent | Partner Caregiver | Partner Clinician Teacher Other | Context Home | Context School Clinic Other |
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<tr>
<td>Production (By 18 months)</td>
<td>Does the child use words to express a variety of meanings? Recurrence - (more) Existence - (cookie, that) Non-Existence - (all gone) Rejection - (no) Action - (go) Locative Action - (up)</td>
<td>Not Present Emerging Consistent</td>
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Lahey, 1988

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<td>Production (By 18 months)</td>
<td>Does the child talk about things that are ongoing and present?</td>
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<td>Production (By 18 months)</td>
<td>Does the child talk about what they are doing?</td>
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<td>Production (By 18 months)</td>
<td>Does the child clarify listener’s understanding when asked?</td>
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<td>Lahey, 1988</td>
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<tr>
<td>Production (By 18 months)</td>
<td>Does the child use words following another's that are: - Exact imitations - An added or related word - Are related to the same context?</td>
<td>Not Present</td>
<td>Emerging</td>
<td>Consistent</td>
<td>Caregiver</td>
<td>Clinician</td>
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</table>

Lahey, 1988

Video – Joey (3 years old)
Thank you

• To Dr. Serena Wieder and the late Dr. Stanley Greenspan for their dedication and significant contributions to our field. Your influence in our own personal work has been monumental and life changing.
• To our colleagues who have inspired us by their many talents and additions to this therapeutic work. We value all of our time thinking and learning together.
• To the families and children we work with clinically. Your journeys inspire us to continue learning. We are grateful for the privilege of sharing your lives.
• To our own families. Without your constant love and support, we would not be able to do the work that we love.

References

References (continued)


References (continued)

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