Functional Language Intervention Why & How?

Pennsylvania Speech-Language-Hearing Association
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Function Language Intervention is a...

...communication-first approach to intervention that uses the child's natural conversational partners and topics and child-based, everyday activities, routines, and scripts as the vehicles for change

A Rationale based on...

- Lessons from Development
- Concern for Generalization
- The Primacy of Pragmatics

Infant & Toddler Language Learning Lesson

Lesson:
Children become communicators because we treat them that way

Application:
Include caregivers and conversational practice
Expect children to communicate (Demand it and program for it)

Infant & Toddler Language Learning Lesson

Lesson:
Language is learned in the context of everyday routines and activities

Application:
Include everyday activities
Train through play and place language in familiar contexts

Routine provide "scripts" for participation

Infant & Toddler Language Learning Lesson

Lesson:
Symbols are learned to fulfill the functions established by gestures
Communication comes before language

Application:
Respond to all efforts to communicate
Train communication first
Follow the child's lead
Train gestures/signs first if needed
Infant & Toddler Language Learning Lesson

Lesson:
Vocabulary is experientially based
Not everyone uses the same strategy:
Referential vs. expressive (formulas or swallow-it-whole) style

Application:
Provide themes with functional vocabulary
The swallow strategy is less effective in the long run, so discourage memorization of wholes

Infant & Toddler Language Learning Lesson

Lesson:
Adult teaching strategies include imitation, expansion, and extension
All are reinforcing

Application:
Use a variety of teaching strategies
Avoid (ugh!) “Good talking”
Reinforcing here too

Infant & Toddler Language Learning Lesson

Lesson:
Caregivers prompt children through questions, fill ins (“This is a...”), and elicit imitations in context (“Say...”)

Application:
Use a variety of strategies when eliciting communication from children

Preschool Language Learning Lesson

Lesson:
Language is learned through conversation and play
Caregivers...
Modify conversations to maximize child participation (Turnabouts) based on advances by the child
Conversations structured to keep the child on topic (usually what the child is doing or is interested in)

Application:
Use high interest activities
Plan activities to maximize child communication
Follow the child’s lead and help the child stay on topic by using familiar contexts and routines
Facilitate the child’s turn with turnabouts

Preschool Language Learning Lesson

Lesson:
Form follows function (The influence of architecture)

Application:
Plan activities to elicit certain functions and then help the child with the form to express that function

Preschool Language Learning Lesson

Lesson:
Language learning and use are heavily influenced by context

Application:
Do not decontextualize language because that requires metalinguistic skills beyond the child’s ability
Train language in familiar, high usage contexts
Preschool Language Learning Lesson

**Lesson:**
Children are actively involved

**Application:**
Challenge them. Keep them active. Get them involved in doing something

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Preschool Language Learning Lesson

**Lesson:**
Children gradually learn to consider the conversational partner (Your partner can’t follow and you can’t be effective unless you help your partner)

**Application:**
Help children by asking questions and requesting clarification. Give verbal and visual feedback to let the child know that you’re getting the message

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Generalization is...

1) an ongoing, interactive process of the client and the newly acquired language with the communication environment

2) An essential part of learning

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Types of Generalization

- **Content Generalization**
  Client uses newly acquired language feature with untrained content

- **Context Generalization**
  Client uses newly acquired language feature in a new context or situation that differs from the training context

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Variables that Affect Generalization

- **Content Generalization**
  - Training Targets
  - Training Items

- **Context Generalization**
  - Method of Training
  - Language Facilitators
  - Training Cues
  - Training Consequences
  - Training Location

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Content Generalization

- **Training targets** Base on the actual needs of the client using development as a guide. Pick targets that are highly likely to occur

- **Training items** Select from those used by the child and highly likely to occur.
  - Train forms across function and functions across forms
  - Identify relevant and irrelevant cues
Context Generalization

- **Method of Training**
  - Flows from your definition of language and from your goal
  - Language is a social tool
  - Language is used most in conversation

- **Language Facilitators**
  - Top-down strategy
  - Those who spend the most time with the client and can increase the child's potential for success
  - Incidental teaching techniques are very important
  - Trainers can become an S

Context Generalization

- **Training Cues**
  - "Real" world vs. "I'm going to say a sentence and I want you to make it negative."
  - Manipulate
  - Nonlinguistic context
  - Linguistic context: Directly and indirectly

- **Training Consequences**
  - Everyday reinforcers are best
  - Become a reinforcer yourself
  - Rid thyself of phony reinforcers, especially "Good talking!"

The **ideal** language teaching situation:

The child is involved in meaningful activity with a conversational partner who models and cues appropriate language and responds in ways that encourage participation

Then you get generalization!

Is Pragmatics...

- Just another set of rules?
  - If so...
  - Oh, rats, more language rules to teach!

- The organizing aspect of language?
  - If so...
  - Hmmm, I need to change the way I do intervention!

Pragmatics is **not** just a language analysis category

Pragmatics is a theoretical statement that informs the way we intervene with children with language impairments
Why does AAC fail to generalize to everyday use?

- Lack of child content
- Not readily available for use
- Use environment not included in training
- Others not trained to use it
- Child unable to finish message
- Child simply response with yes/no
- Unintelligible system
- Lack of flexibility
- Precedence of training over communication

A Functional Intervention Model

<table>
<thead>
<tr>
<th>Traditional language intervention does not consider either the integrated nature of language or the context of language use. Clinical intervention should be a well-integrated whole.</th>
</tr>
</thead>
</table>
- Concern for generalization is foremost and governs overall intervention
- Use the environment and conversation as the context

Our goal in intervention is...

...To create and sustain an atmosphere of fun, surprise, interest, ease, laughter, and spontaneity

Does this sound like your intervention sessions? If the answer is "NO," then it's time for a...

CHANGE

Intervention Principles

Closely Approximate Natural Learning
Follow Developmental Guidelines
Follow the Child's Lead
Actively Involve the Child -- Language learning is not a passive process
Language is Heavily Influenced by Context so Teach where language is used
Familiar Events Provide Scripts
Design a Generalization Plan First
Be a REINFORCER

Manipulating Context

- Manipulate contexts to provide a child with the maximum learning possible
- Manipulate what comes
  - Before a child's utterance to get what you want, and
  - After a child's utterance to fix it, strengthen it, or ask for more
- Manipulate both non-linguistic and linguistic contexts
Non-Linguistic Context Manipulation

- Easy to overlook
- Certain contexts naturally elicit more and different language than do others
  - Delay, introduction of novel elements, oversight, and sabotage
  - Making and baking can elicit verb tenses: I will mix, I'm mixing, I mixed
  - Collections elicit plurals: To make paper bag puppets, we'll need...
  - Narratives elicit past tense, but predicting what will happen in a story elicits future tense

Linguistic Context Manipulation

- Indirect and direct
- Conversational and situational in nature
  - Conversation is the vehicle for change
  - System of least prompts

Language Intervention Techniques from Most to Least Prompts

<table>
<thead>
<tr>
<th>Type</th>
<th>When</th>
<th>Purpose</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focused Stimulation</td>
<td>Beginning of Intervention</td>
<td>Model</td>
<td>Yesterday, I walked my brother's new bike, money drove. Yesterday, I went to the store. Yesterday you made a cookie.</td>
</tr>
<tr>
<td>Self-Talk</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Parallel Talk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission</td>
<td>After child is familiar with language target</td>
<td>Model and familiarize child with production</td>
<td>Say &quot;I rode a bike.&quot;</td>
</tr>
<tr>
<td>Emission</td>
<td>Immediate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission</td>
<td>Delayed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expansion</td>
<td>When child produces target error</td>
<td>Model child's utterance is more mature or more correct form</td>
<td>Child: Yesterday he will ask ice cream. SLP: Yes, yesterday he ate ice cream.</td>
</tr>
<tr>
<td>Direct Rule Learning</td>
<td>Best with older children: teaches language rule</td>
<td>Explicit instruction</td>
<td>When we talk about something that happened before, we...</td>
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<tr>
<td>Expansion with Imitation</td>
<td>When child produces target error</td>
<td>Repeat child's utterance in more mature or more correct form and require production</td>
<td>Child: Yesterday he will ask ice cream. SLP: Yes, yesterday he ate ice cream. Now, you tell me.</td>
</tr>
<tr>
<td>Parallel Production</td>
<td>After child is able to imitate</td>
<td>Offer examples and child forms own response</td>
<td>SLP: I measured the sugar, I added the flour, I poured the milk. Tell me what you did? Child: I mixed the dough.</td>
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<tr>
<td>Repetition</td>
<td>When child is able to produce target</td>
<td>Elicit target</td>
<td>What did the boy do yesterday? [May or may not model answer]</td>
</tr>
<tr>
<td>Choice-making</td>
<td>When child produces the target inconsistently</td>
<td>Provide a possible model</td>
<td>Ride or ride?</td>
</tr>
<tr>
<td>Judging Correctness</td>
<td>When child is producing the target inconsistently</td>
<td>Help child self-monitor</td>
<td>Yesterday, he will ride his bike. Is that correct?</td>
</tr>
<tr>
<td>Making Obvious Errors</td>
<td>When child is producing the target inconsistently</td>
<td>Help child self-monitor</td>
<td>Yesterday, we will swim. What should I say?</td>
</tr>
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*Only for school-age children with metalinguistic ability*
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<tr>
<td>Reformulation</td>
<td>When child is producing the</td>
<td>Additional practice</td>
<td><em>Rode yesterday like no. Make a sentence from those words.</em></td>
</tr>
<tr>
<td>Identification</td>
<td>target inconsistently</td>
<td></td>
<td></td>
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<tr>
<td>Correction Model</td>
<td>When child makes an error</td>
<td>Production and correction with maximum</td>
<td><em>I'm going to tell a story. Raise your hand whenever you hear me use past tense.</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>assistance</td>
<td><em>Child: Yesterday I see a puppy. SLP: Yesterday I saw a puppy.</em></td>
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<tr>
<td>Correction model plus</td>
<td>When child makes an error</td>
<td>Production and correction with maximum</td>
<td><em>Child: Yesterday I see a puppy. SLP: Yesterday I saw a puppy. Now you tell me.</em></td>
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<tr>
<td>Request [Imitation]</td>
<td></td>
<td>assistance</td>
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<tr>
<td>Incomplete Model plus</td>
<td>When child makes an error</td>
<td>Production and correction with maximum</td>
<td><em>Child: Yesterday I see a puppy. SLP: Saw. Now you tell me.</em></td>
</tr>
<tr>
<td>Request</td>
<td></td>
<td>assistance</td>
<td></td>
</tr>
<tr>
<td>Reduced Error Request</td>
<td>When child makes an error</td>
<td>Production and correction with some</td>
<td><em>Child: Yesterday I see a puppy. SLP: Saw. SLP: Tell me again.</em></td>
</tr>
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<tr>
<td>Error Repetition Request</td>
<td>When child makes an error</td>
<td>Production and correction with some</td>
<td><em>Child: Yesterday I see a puppy. SLP: Saw a puppy. SLP: Tell me again.</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>assistance</td>
<td></td>
</tr>
<tr>
<td>Self-correction Request</td>
<td>When child does or does not</td>
<td>Self-monitoring and correction with minimal</td>
<td><em>Child: Yesterday I see a puppy. SLP: What was that right? [Was that correct?]</em></td>
</tr>
<tr>
<td></td>
<td>make an error</td>
<td>assistance</td>
<td></td>
</tr>
<tr>
<td>Request for Clarification</td>
<td>When child does or does not</td>
<td>Independent production and correction with</td>
<td><em>Child: Yesterday I see a puppy. SLP: I don't understand.</em></td>
</tr>
<tr>
<td></td>
<td>make an error</td>
<td>minimal assistance</td>
<td></td>
</tr>
</tbody>
</table>

### How could we use some of these techniques conversationally?

First, choose your intervention target(s) that:
- Help the child to COMMUNICATE better
- "Work" for the child
- Are functional

Collaborate with the family/teacher to set goals

Design a generalization plan

Next, decide how to accomplish your goals
- Plan to use top-down strategies whenever possible
- Choose the techniques you will use to elicit and respond to the target

### How could we use some of these techniques conversationally?

Arrange the techniques you want to use from least to most support and assistance

- Turnabouts
- Expansion request
- Repetition request
- Request for Clarification
- Self-correction request
- Error repetition/request
- Reduced error repetition/request
- Choice-making
- Incomplete correction model/request
- Correction model/request
- Imitation
How could we use some of these techniques conversationally?

Then, determine at which level of support you will begin. You do not need to begin with the least support. Give the child as much support as he needs to be successful.

Examples:
Child #1 needs to imitate the correct utterance when he makes a mistake.
Child #2 needs a reminder in the form of "Was that correct?" plus some reminders.

Next, practice until the techniques sound natural.

Last, plan the activity and the conversation to have multiple opportunities to elicit the target.

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Example with Child #1

Child: Yesterday I saw two puppies
Adult: *Seed or saw? (Choice-making)*
Child: Saw. I saw two puppies.
Adult: *Tell me again. (Incomplete correction model/request)*
Child: I saw them.
Adult: *Yesterday I saw two puppies? Now, you tell me. (Correction model/request)*
Child: I saw two puppies.
Adult: *You saw two puppies? Tell me again please. (Repetition request)*
Child: I saw two puppies.
Adult: *Yesterday I saw two puppies? (Turnabout that's likely to elicit more past tense verbs)*

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Example with Child #2

Child: Yesterday I see two puppies
Adult: *I don't understand. (Request for clarification)*
Child: I see two puppies.
Adult: *Was that right? (Self-correcting request)*
Child: Uh-huh.
Adult: *Yesterday I see two puppies? (Error repetition/request)*
Child: Saw. I saw two puppies.
Adult: *Tell me again. (Repetition request)*
Child: Yesterday I saw two puppies.
Adult: *I love puppies. Then what happened? (Turnabout that's likely to elicit more past tense verbs)*
**Indirect Linguistic Elicitation Techniques**

The following are a few suggestions from an infinite number of possibilities. Remember that the goal is to elicit language conversationally and without a “phony” direct cue and such as “Say the whole thing.”

<table>
<thead>
<tr>
<th><strong>Indirect Technique</strong></th>
<th><strong>Target</strong></th>
<th><strong>Example</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emperor’s new clothes</td>
<td>Negative statements</td>
<td><strong>Example</strong></td>
</tr>
<tr>
<td>Pass it on</td>
<td>Request information</td>
<td>Adult: Mark, do you know where Julie lives?</td>
</tr>
<tr>
<td>Child: No.</td>
<td></td>
<td>Adult: Why don’t you ask her.</td>
</tr>
<tr>
<td>Child: (To Julie) <em>Where live?</em></td>
<td></td>
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<tr>
<td>Silly rabbit! Pass it on</td>
<td>Protests, directives,</td>
<td>Adult: Here’s your snack.</td>
</tr>
<tr>
<td>Violating routine)</td>
<td>imperatives</td>
<td>Child: <em>Empty.</em></td>
</tr>
<tr>
<td>Non-blabbermouth</td>
<td>Request information</td>
<td>Adult: (Place interesting item on table) Boy, is the neat.</td>
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<tr>
<td></td>
<td></td>
<td>Child: <em>What it is?</em></td>
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<tr>
<td></td>
<td></td>
<td>Adult: A thing-a-ma-bob and it can do neat things.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>What it do?</em></td>
</tr>
<tr>
<td>What I have</td>
<td>Request action</td>
<td>Adult: Oh, I can’t wait to do this. It’s such fun.</td>
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<tr>
<td></td>
<td></td>
<td>Child: <em>Show me.</em></td>
</tr>
<tr>
<td>Guess what I did</td>
<td>Request information</td>
<td>Adult: Guess what I did yesterday at the zoo.</td>
</tr>
<tr>
<td>Past tense</td>
<td></td>
<td>Child: <em>Petted sheep?</em></td>
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<tr>
<td></td>
<td></td>
<td>Adult: No, but you’re close.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>Petted goats?</em></td>
</tr>
<tr>
<td>Mumble</td>
<td>Request clarification</td>
<td>Adult: I was really scared so <em>$$#@</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>What?</em> or <em>What did you do?</em></td>
</tr>
<tr>
<td>Ask someone else</td>
<td>Request information</td>
<td>Adult: What do you need?</td>
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<tr>
<td></td>
<td></td>
<td>Child: <em>Red paint.</em></td>
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<tr>
<td></td>
<td></td>
<td>Adult: Why don’t you ask Carolyn for some.</td>
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<tr>
<td></td>
<td></td>
<td>Child: <em>Want red paint.</em></td>
</tr>
<tr>
<td>Rule giving</td>
<td>Request for objects</td>
<td>Adult: I have some fun toys you can play with. Just ask.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>Want Ninja Turtles.</em></td>
</tr>
<tr>
<td>Request for assistance</td>
<td>Initiating conversation</td>
<td>Adult: Kevin, ask Mary to come help me please.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>Mary, Mrs. Smith wants you to help.</em></td>
</tr>
<tr>
<td>Meaningful modeling</td>
<td>I want X.</td>
<td>Adult: What color should I use. I want green. How about you?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>I want red.</em></td>
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<tr>
<td></td>
<td></td>
<td><strong>He’s X.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adult: I colored my puppy. He’s white and black. What can you tell me about your puppy?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>He’s happy.</em></td>
</tr>
<tr>
<td>Screw Up #1</td>
<td>Locatives, prepositions</td>
<td>Adult: Can I wear this here? (Put in wrong place)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>No, on your foots.</em></td>
</tr>
<tr>
<td>Screw up #2</td>
<td>Protests, negative statement</td>
<td>Adult: Here’s your crayons. (Give child glove)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child: <em>That not crayon.</em></td>
</tr>
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