Adapting Early Communication Intervention to the Phenotypic Characteristics of Young Children with Language Impairment

Ann P. Kaiser
Vanderbilt University
Today’s Talk

- Building a new generation of communication interventions
- Enhanced Milieu Teaching (EMT)
  - Brief overview
  - Research evidence
- EMT active ingredients
  - Underlying model of communication development
  - Core procedures
  - Additions to core EMT
- Adapting EMT To Fit Learner Characteristics
  - Profiles of four populations
  - Adaptations to maximize social communication outcomes
- The Intervention Tool Box: Tools for Adapting EMT
- Summary and Conclusions
KidTalk @ Vanderbilt

Current research projects:

- Social Communication intervention for preschool and school-aged children with autism who have delayed language
- Social communication for preschool children with Down Syndrome
- Social communication intervention for toddlers with autism or suspected autism
- EMT en Español
Enhanced Milieu Teaching
What is Enhanced Milieu Teaching?

- EMT is a naturalistic, conversation-based intervention that uses child interests and initiations as opportunities to model and prompt language in everyday contexts.
- EMT can be used throughout the day as part of the everyday interactions.
- EMT is an evidence-based intervention with 20 years of research.
- EMT is an effective intervention.
EMT Principles and Strategies

1. Promote adult-child communication *now*
   - Notice and respond
   - Follow the child’s lead

2. Increase child engagement with objects and activities
   - Child preferred activities
     - Join the child in play and activity
     - Teach play and participation

3. Expand the social basis of communicative interactions
   - Arrange environment to increase engagement
   - Teach joint attention strategies
   - Balance turns (mirror and map)
   - Increase person engagement

4. Teach child communication target forms to advance language
   - Respond
   - Model
   - Expand
   - Prompt
EMT Child Communication Goals

1. Increase duration of engagement
   - Social (joint engagement)
   - Objects (play)

2. Increase rate of communication
   - Emphasize spontaneous social initiations

3. Increase diversity of communication
   - Same level forms
   - More words and phrases
   - More functions (requests, comments, questions)
   - Across more contexts

4. Increase complexity of communication
   - Higher level forms
   - Prelinguistic to linguistic,
   - Mean length of utterances
   - Complexity of utterance types

5. Increase independence
   - Initiated social communication
   - Generalization across contexts, people
Evidence Base

- EMT has evolved over time through systematic research
- Each EMT component has an evidence based
- EMT can promote generalization and maintenance of newly-learned language
- EMT is effective for a range of children learning to communicate
- EMT can be effective when implemented by parents, therapists, teachers, siblings and peers
Evidence Base

- Increases child use of language targets
  - Early syntactic forms (Kaiser & Hester, 1994)
  - Moderately complex syntax (Warren & Kaiser, 1986)

- Increases child frequency of communication (Warren et al., 1994; Kaiser et al., 1993)


Children are communicating now

Communication is based on interaction between child and adult

Communication develops on a platform of joint attention

Children learn through contingent modeling

Goal is for children to become independent social communicators
What do we mean by ‘engagement’?

- Child’s ability to participate in a reciprocal interaction around objects with another person

- We use joint engagement as the context for social learning
  - Play
  - Non-verbal communication
  - Spoken language

- Why do we need engagement?
Joint Engagement

- Promote joint engagement to increase the opportunities for the child to learn
- Provides a context for what is being said and for understanding communicative intent (Tomasello, 1995)

- Signs that child is unengaged:
  - *Object focused: playing with a toy and not observing you or taking turns*
  - Wandering
  - Observing without playing

- Signs that the child is joint engaged:
  - Turn taking in an activity
  - Related requests or comments
  - Using gestures: pointing, showing, giving
Promoting Engagement

- Arrange the environment to be most conducive to joint engagement and learning
  - Sit across from the child
  - Remove distractions
  - Be aware of all child behavior

- Choices available

- Developmentally appropriate and motivating toys available

- Minimize demands
  - Minimize questions
  - Minimize directions
  - Follow the child’s lead
Why is play important?

- Play can lead to longer periods of joint engagement
- Play provides the context for you to model and expand the child’s play acts and social-communication
Levels of Play

Simple Play
- Rolling a ball
- Banging drum
- Closing pop-up toy

Combination Play
- Shapes in a shape sorter
- Puzzle pieces in
- Building and stacking

Pre-symbolic Play
- Familiar actions to self and others
- Feeding a baby
- Pretending to eat

Symbolic Play
- Dolls and figures have life and can pretend (wake up, eat breakfast, go to school)
- Pretending a block is food
## So Many Ways to Play!

<table>
<thead>
<tr>
<th>Toy</th>
<th>Routine Steps</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks and blocks</td>
<td>Put blocks in the truck, drive the truck, dump blocks out</td>
<td>Simple &amp; combo</td>
</tr>
<tr>
<td>Truck, Barn structure, and animals</td>
<td>Put animals in the truck; drive to the barn; put the animals in the barn</td>
<td>Pre-symbolic</td>
</tr>
<tr>
<td>Food, plates, cups, utensils</td>
<td>Put food on plates; pretend to mix, cook; pretend to eat</td>
<td>Combo &amp; pre-symbolic</td>
</tr>
<tr>
<td>Small blocks and agents</td>
<td>Build a house, walk the people into the house, build a bed, have the people sleep</td>
<td>Combo &amp; symbolic</td>
</tr>
<tr>
<td>Agents and vehicles</td>
<td>People climb in the vehicle, drive to the school, to the zoo, to the moon</td>
<td>Higher symbolic</td>
</tr>
</tbody>
</table>
Play Routines