

Enhanced Milieu Teaching for Children with Significant Developmental Disabilities and Communication Needs

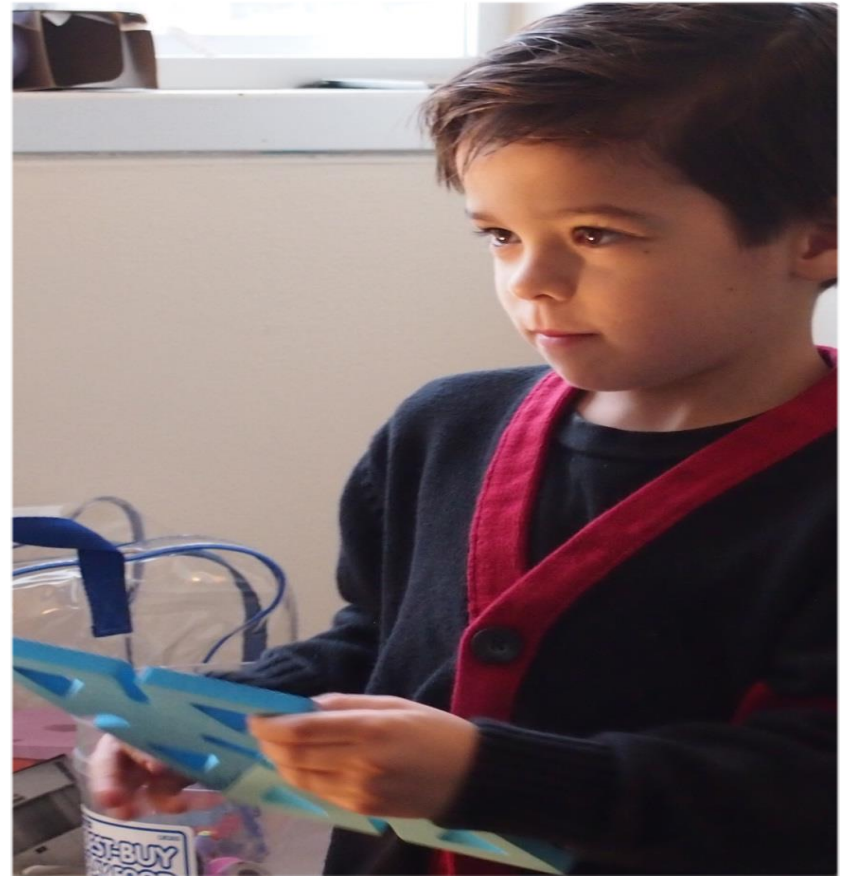
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Today's Talk

- NDBIs
- An Up to Date View of EMT
- Adaptations of EMT

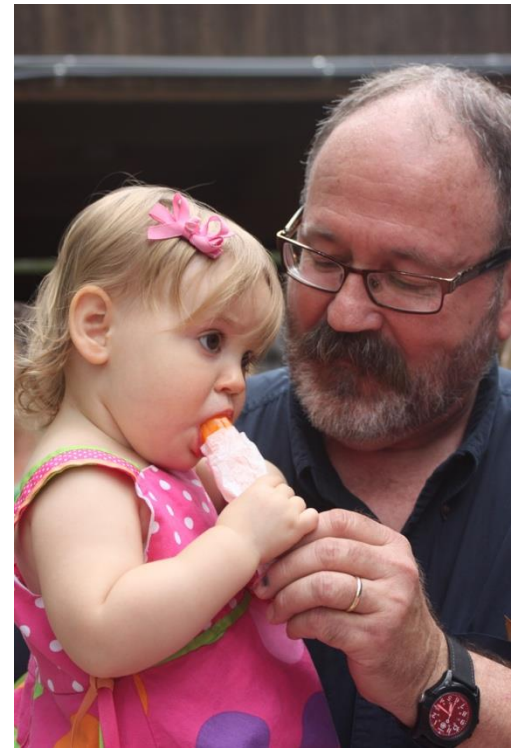


Learning Objectives

- 1. Define and describe Naturalistic Development Behavioral Interventions (NDBIs)**
- 2. Define key strategies for teaching language and communication that compose Enhanced Milieu Teaching (EMT)**
- 3. Explain the critical role of communication partners in EMT**
- 4. Describe four key considerations in adapting EMT for individual children**

Naturalistic Developmental Behavioral Interventions (NDBIs)

- Delivered in naturalistic and interactive social contexts, such as play and daily routines
 - Involve child-directed teaching strategies
 - Based on empirically-based intervention methods derived from both the principles of behavioral learning and developmental science
 - Focus on teaching functional skills in context
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- Schreibman, L., Dawson, G., Stahmer, A. C., Landa, R., Rogers, S. J., McGee, G. G.,... Halladay, A. (2015). Naturalistic Developmental Behavioral Interventions: Empirically Validated Treatments for Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 45(8), 2411–2428. <http://doi.org/10.1007/s10803-015-2407-8>



Components Of NDBI

- Teach throughout the day, different environments,
- Embedded into activities and meaningful social interactions.
- Expand engagement
- Teach using direct instruction and functional consequences
- Use similar skills across learning targets

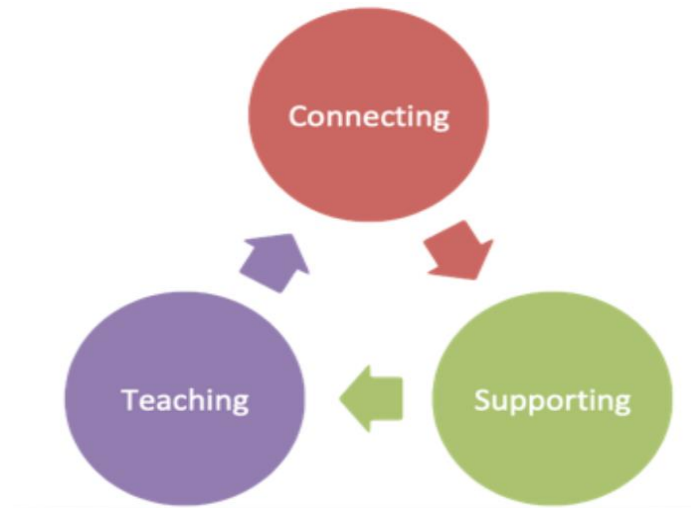


NDBIs include:



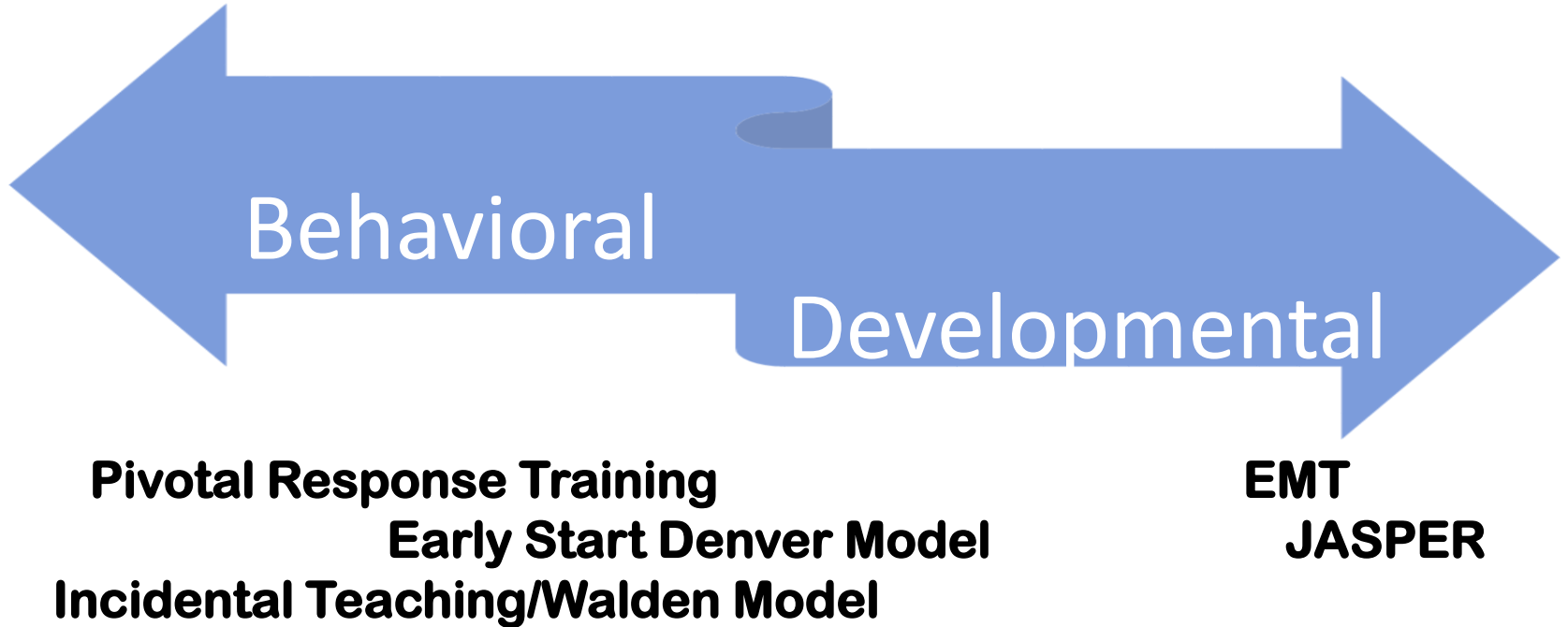
- **Individualized goals**
- **Data collection**
- **Child choice**
- **Environmental Arrangements**
- **Systematic instruction**
- **Natural, social consequences**

NDBIs for Children with ASD



- **Enhanced Milieu Teaching (EMT)**
- **Early Denver Start Model (EDSM)**
- **Incidental Teaching/Walden Model (IT)**
- **Pivotal Response Training (PRT)**
- **Joint Attention Social Play and Emotion Regulation (JASPER)**

EMT on the Continuum of NDBIs



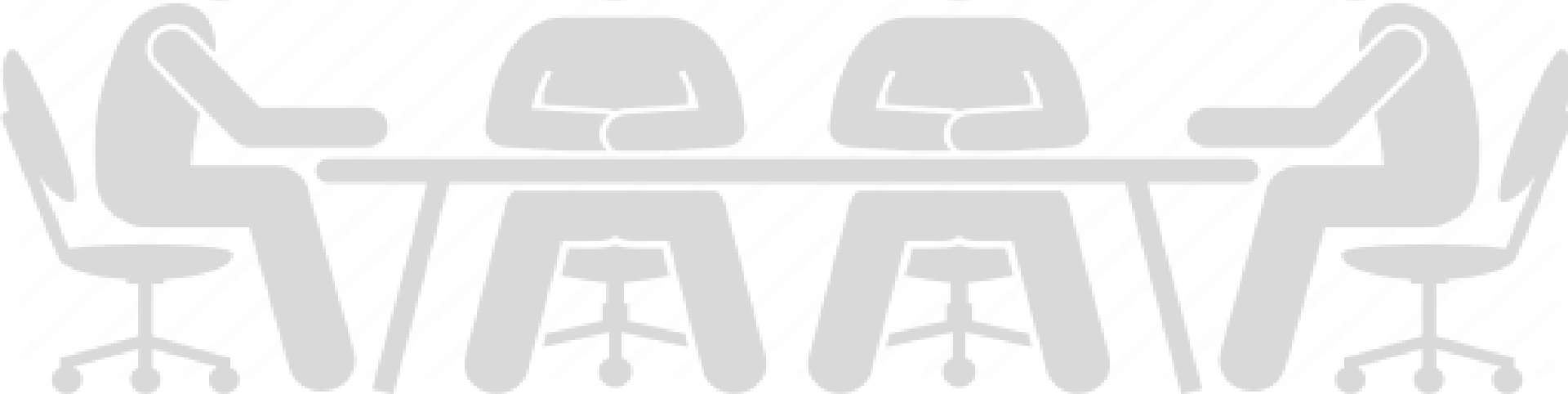
Where Are You as an Interventionist?



Breakout

Brainstorm

- **Strengths of NDBIs for teaching communication**
- **Challenges associated for NDBIs**
- **Where do you place your view communication intervention on the behavioral developmental continuum?**



Enhanced Milieu Teaching



- Naturalistic, conversation-based intervention for language and communication
- Uses child interests, focus of attention and initiations as opportunities to model, expand and prompt language
- Based in communicative interactions with partners
- Used as part of the everyday interactions in play and routines
- Evidence-based intervention with over 20 years of related research.

ESSENTIAL EMT



Communication as an Interactive Process

Communication and Language Forms

Communication Partners as Implementors

EMT: NDBI Components

Developmental Strategies

- **Dyadic Focus**
 - Partner responsiveness
 - Child focus + interests
 - Child communication attempts
 - Joint attention foundation
- **Linguistic Input**
 - Modeling
 - Expansions
 - Developmental sequence of skills

Behavioral Strategies

- **Environmental Arrangement**
 - Context
 - Function
- **Functional Reinforcement**
- **Prompting**
 - Time Delays
 - Milieu Teaching Prompts

EMT Principles and Strategies

- 1. Promote adult-child communication *now***
 - Notice and respond
 - Follow the child's lead and interests
- 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**
 - Model
 - Expand
 - Prompt

EMT Child Communication Goals

1. Increase duration of engagement

- Social (joint engagement)
- Objects (play)
- Communicative (turns)

2. Increase rate of communication

- Emphasize spontaneous social initiations

3. Increase independence

- Initiated social communication
- Generalization across contexts, people

4. Increase diversity of communication

- More words and phrases
- More functions (requests, comments, questions)
- More word combinations

5. Increase complexity of communication

- Prelinguistic to linguistic
- Words to simple sentences
- Complex sentences
- Conversation + narratives

EMT Prelinguistic + Linguistic Goals

Social Foundations

Joint attention behaviors

**Engagement/
Responding**

Vocabulary

Functional words

Labels/nouns

GAP verbs

Agents/objects

Locations

Specific verbs

**Predicates/
modifiers**

Early Syntax

Noun verb diversity

Verb tense and agreement

Pronoun/noun replacement

Agent action

Object predicate

Decontextualized Language

Past events

Predicting future events

EMT Communication Partner Skills

Environmental Arrangement

Play and engage nonverbally

Respond to communication attempts

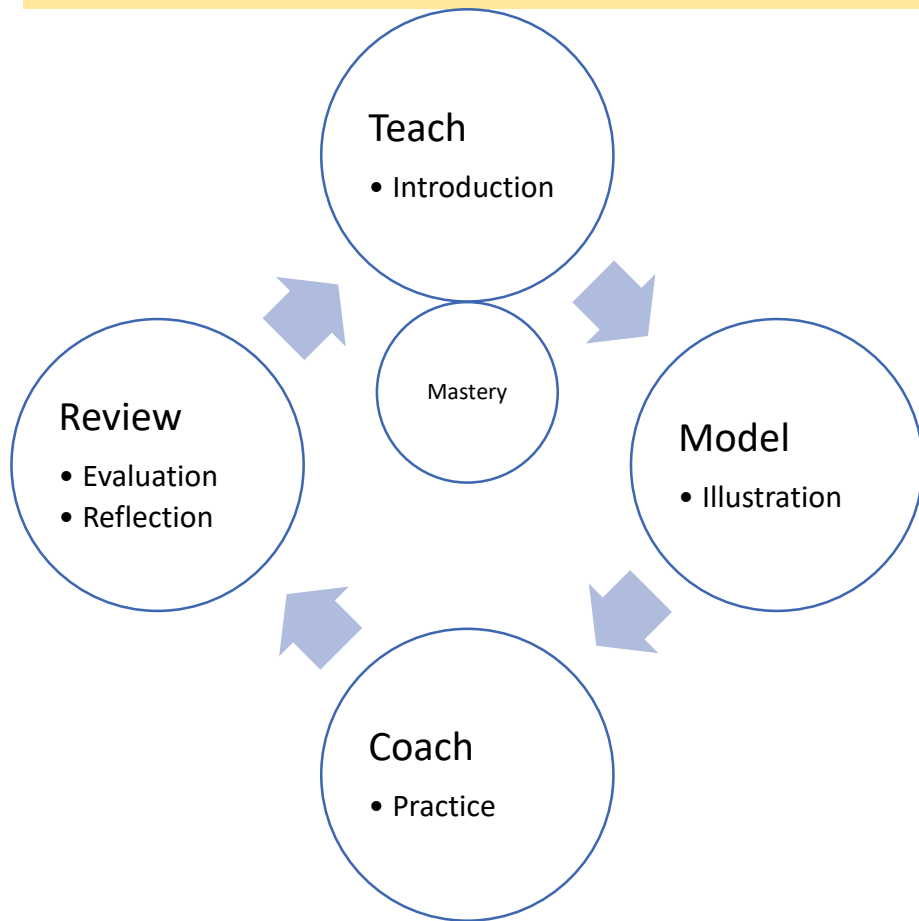
Match/balance turns

Model target language

Expand child communication

Prompt functional communication

EMT Teach-Model-Coach-Review Framework for Teaching Communication Partners



Skills Needed for Caregiver Instruction

- Knowledge of the intervention, strategy, or skill
 - Skilled using the intervention with children
 - Can describe the intervention and rationale fluently, give examples, and answer questions
- Ability to match intervention goals to caregiver goals
- Communication with parents
 - Ask open ended questions and wait time
 - Use understandable language
 - Have generally positive, accepting, and supportive affect
- Coaching and feedback skills
 - Analyze parent implementation
 - Coach to support parent
 - Give feedback that supports parent efforts and teaches skills



Breakout

Brainstorm

- 
- **What challenges do you see in implementing EMT?**
 - **Specific considerations for children with significant or complex communication needs?**

Video Examples of EMT

Social Foundations: promote adult –child communication

- **Notice & Respond and Follow the Child's Lead**

- **Balance Turns**



Social Foundations: Expand the social basis of communicative interactions

- **Teach joint attention skills**



Vocabulary & Early Syntax :Teach target forms

- Respond with Target Language

- Expand



- Prompt



Putting it all together

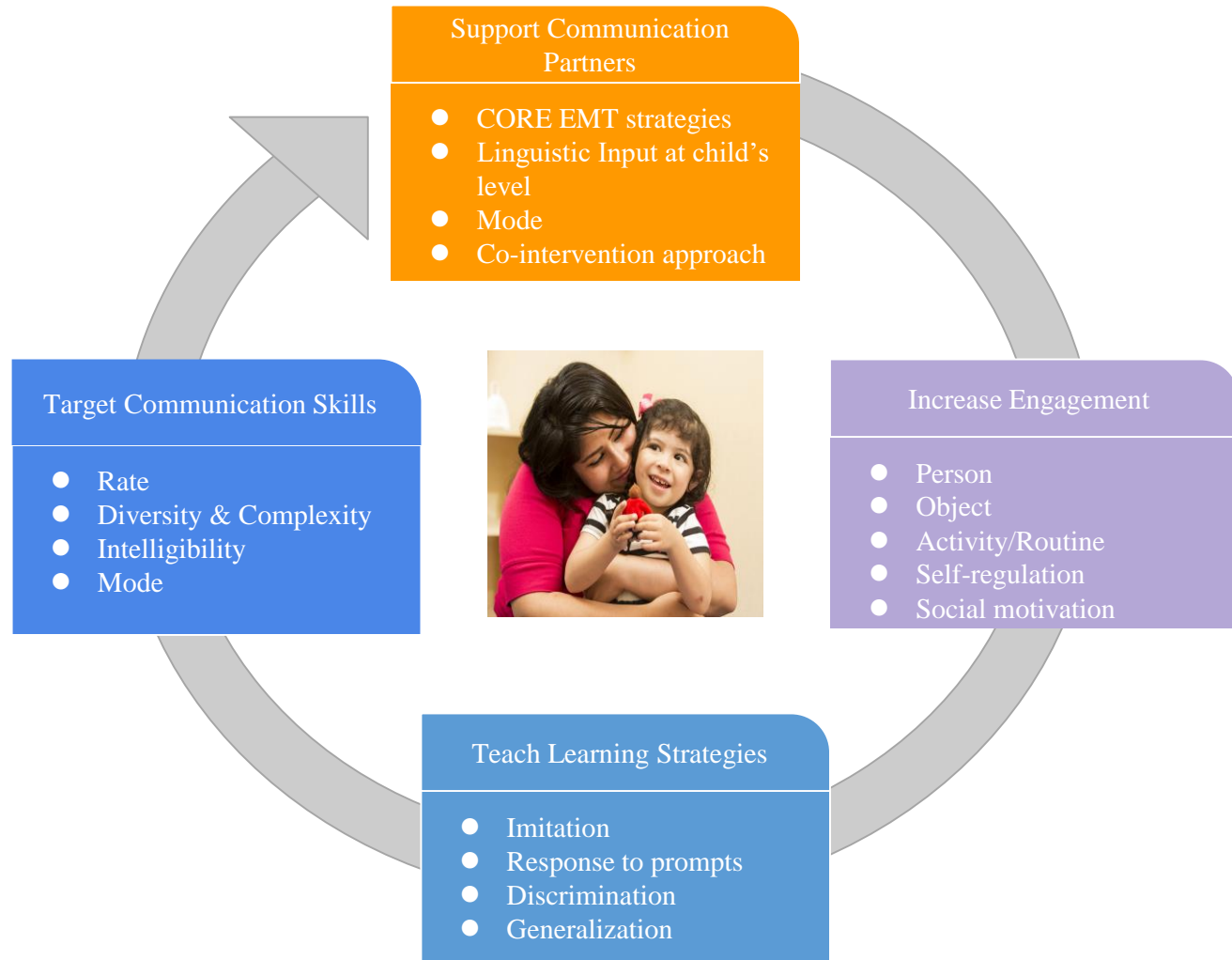


EMT in the real world (at home with toddlers with ASD)

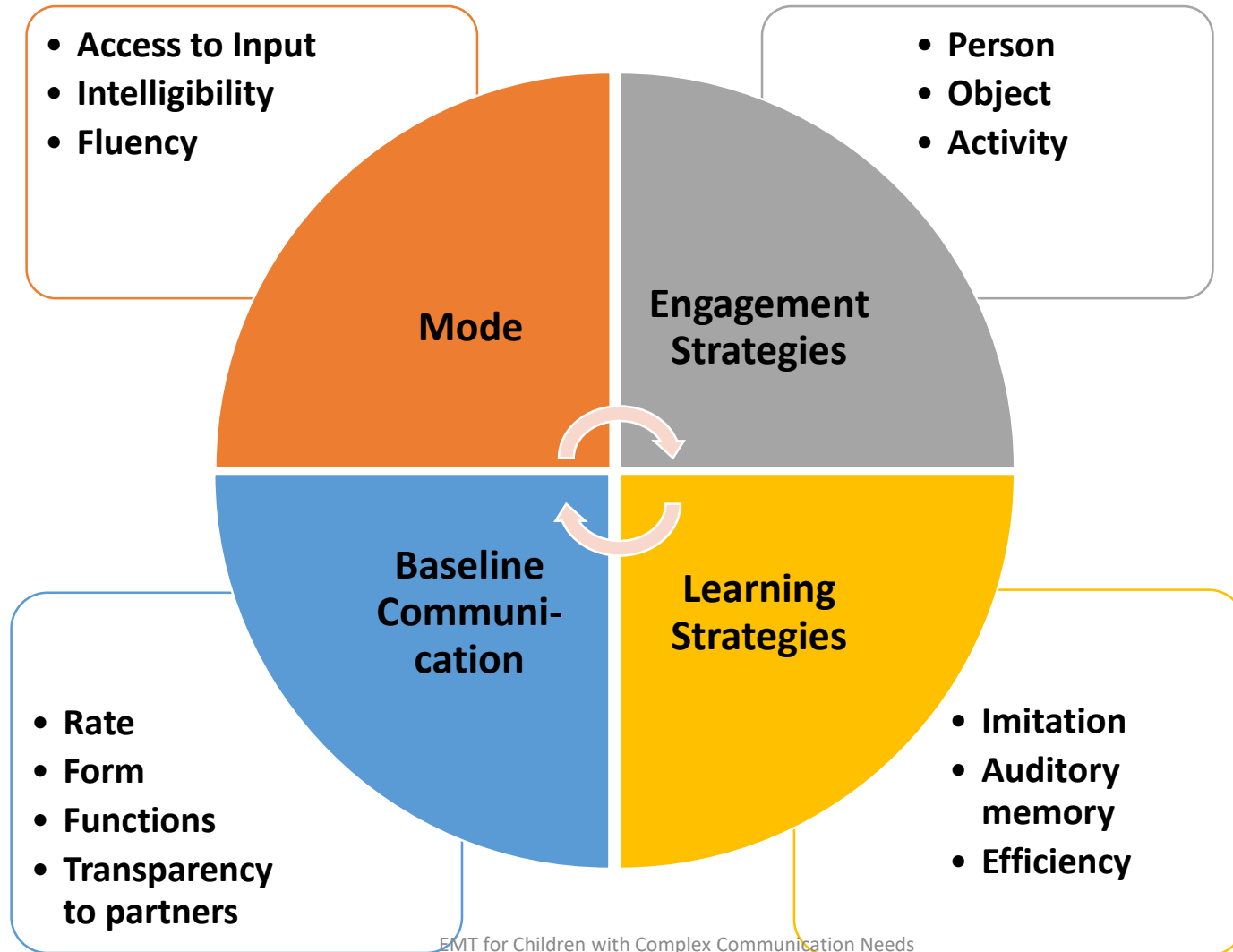


Adapting EMT for Children with Significant Communication Needs

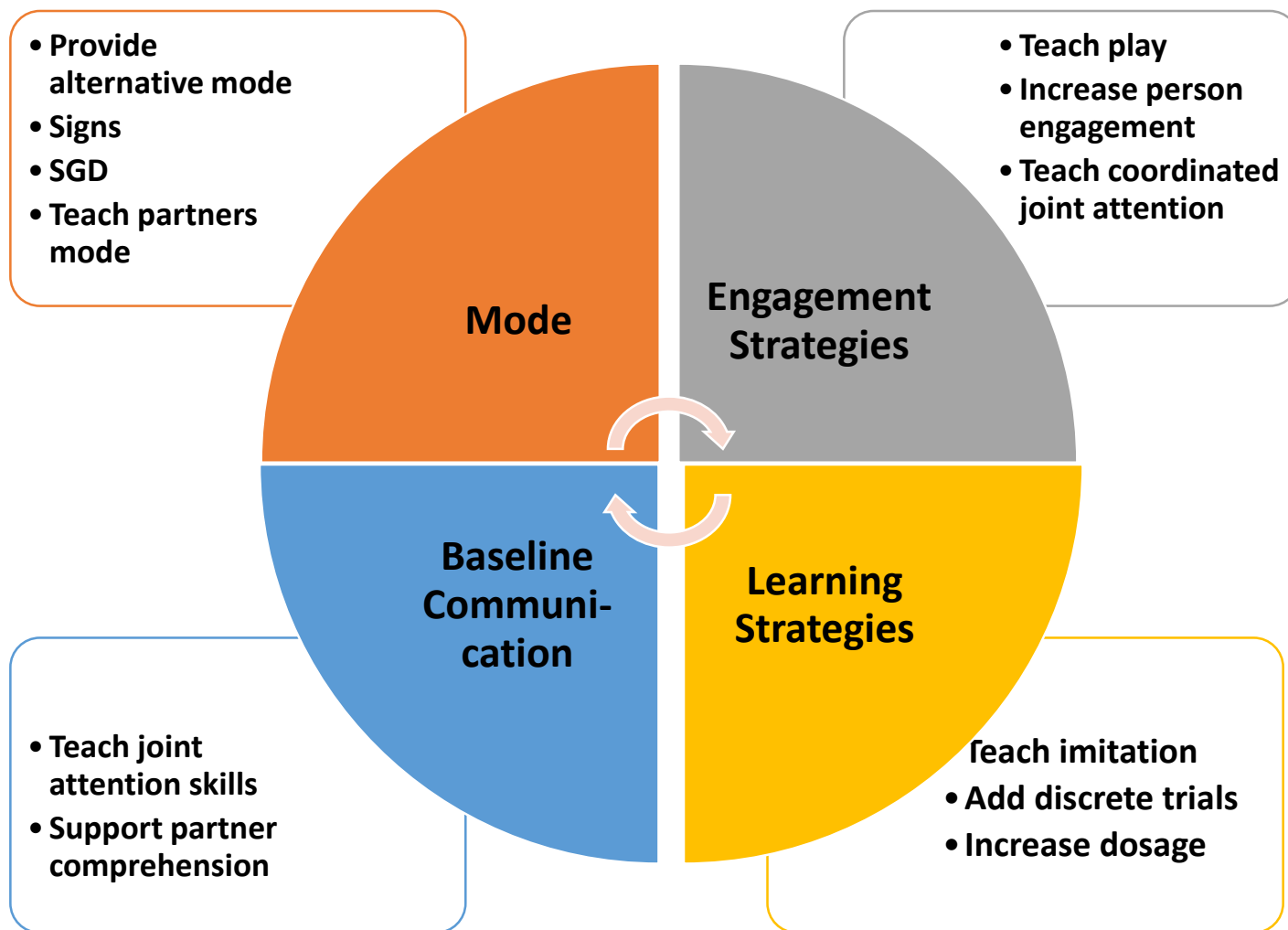
Individualized systems of instruction to optimize early development



What Children Bring to EMT



EMT Modifications to Fit What Children Bring

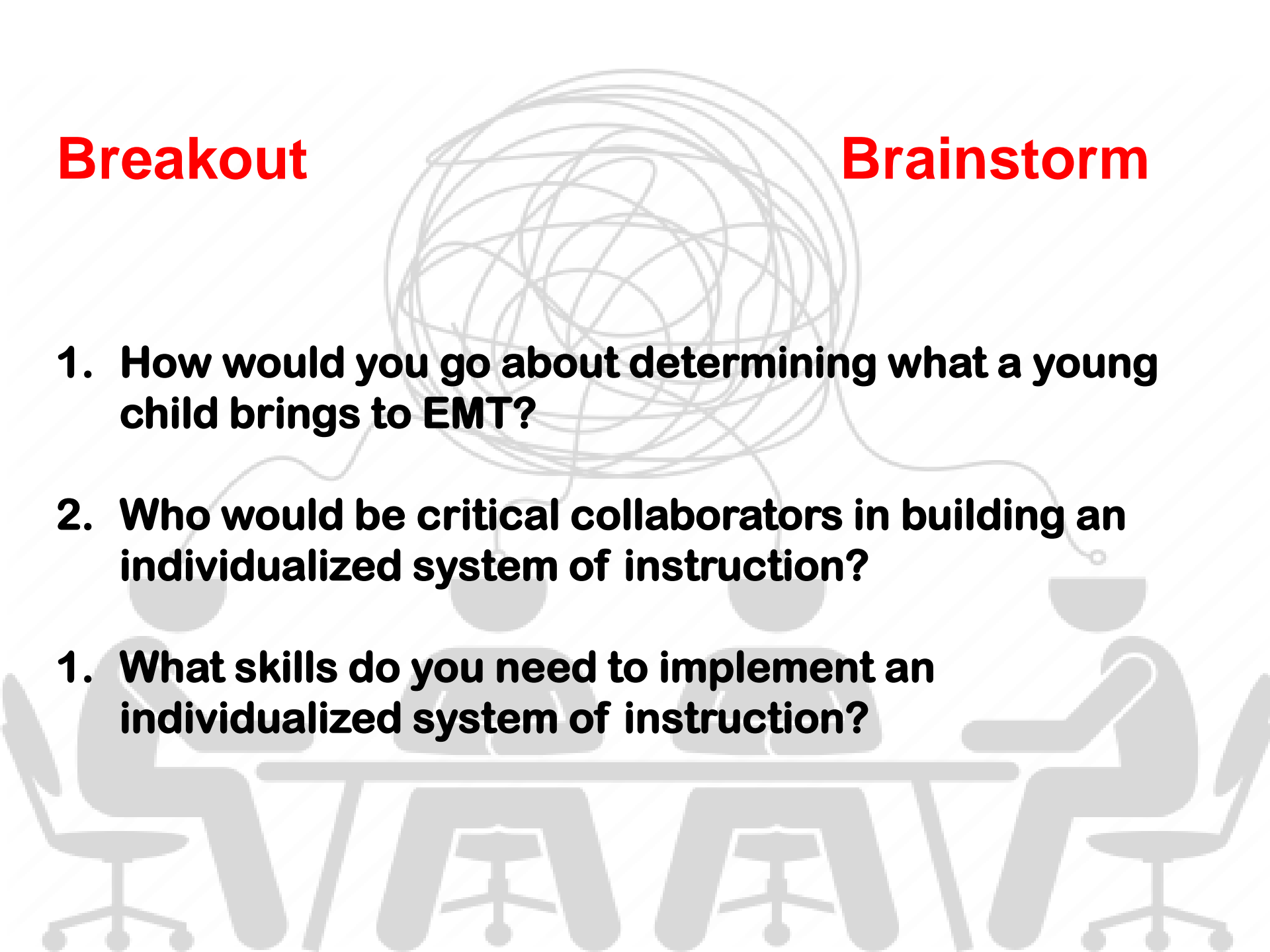


Examples of Population Specific Modifications

Population	Mode	Engagement	Learning Strategy	Baseline Communication
Pre or Minimally Verbal ASD Preschoolers	+ SGD	Teach symbolic play, Increase social and object engagement,	+Dosage +DTT for imitation, joint attention, receptive language+ SGD (PRN)	Teach joint attention, receptives, strategies for learning SGD
Newly diagnosed Toddlers with ASD	No	Increase social and object engagement		Teach joint attention, receptives Teach partners positive behavior support
Toddlers with Receptive/ Expressive Delay (English)	No	No	Increase access to partner input for complex language; change input over time +vocabulary diversity +increase noun+ verb combinations + increase diverse sentence structure +fine tune attention to environment/language	Support partners to provide specific and progressive linguistic input Emphasize receptive and productive skills
Down syndrome	+ Sign or SGD	Teach play and attention regulation	+Dosage +DTT/Matrix training for transition to word combinations	Support partner comprehension, use of SGD,
Cleft Lip+/or Palate	+ Speech targets	No	+Recast for sound production at word level +Speech practice/priming with DTT	Increase rate of child talk and partner response

Breakout

Brainstorm

- 
- 1. How would you go about determining what a young child brings to EMT?**
 - 2. Who would be critical collaborators in building an individualized system of instruction?**
 - 1. What skills do you need to implement an individualized system of instruction?**

A young child with dark hair and bangs is smiling and playing with colorful toys in a classroom. The child is surrounded by various toys, including a wooden abacus with colorful beads, a red toy structure, and a blue toy structure. The background shows a typical classroom setting with a desk, a computer monitor, and a blue chair. The text is overlaid on the image in a bold, black font.

Adapting EMT for Young Children with ASD

A detailed example to use as a basis for adapting EMT to your population

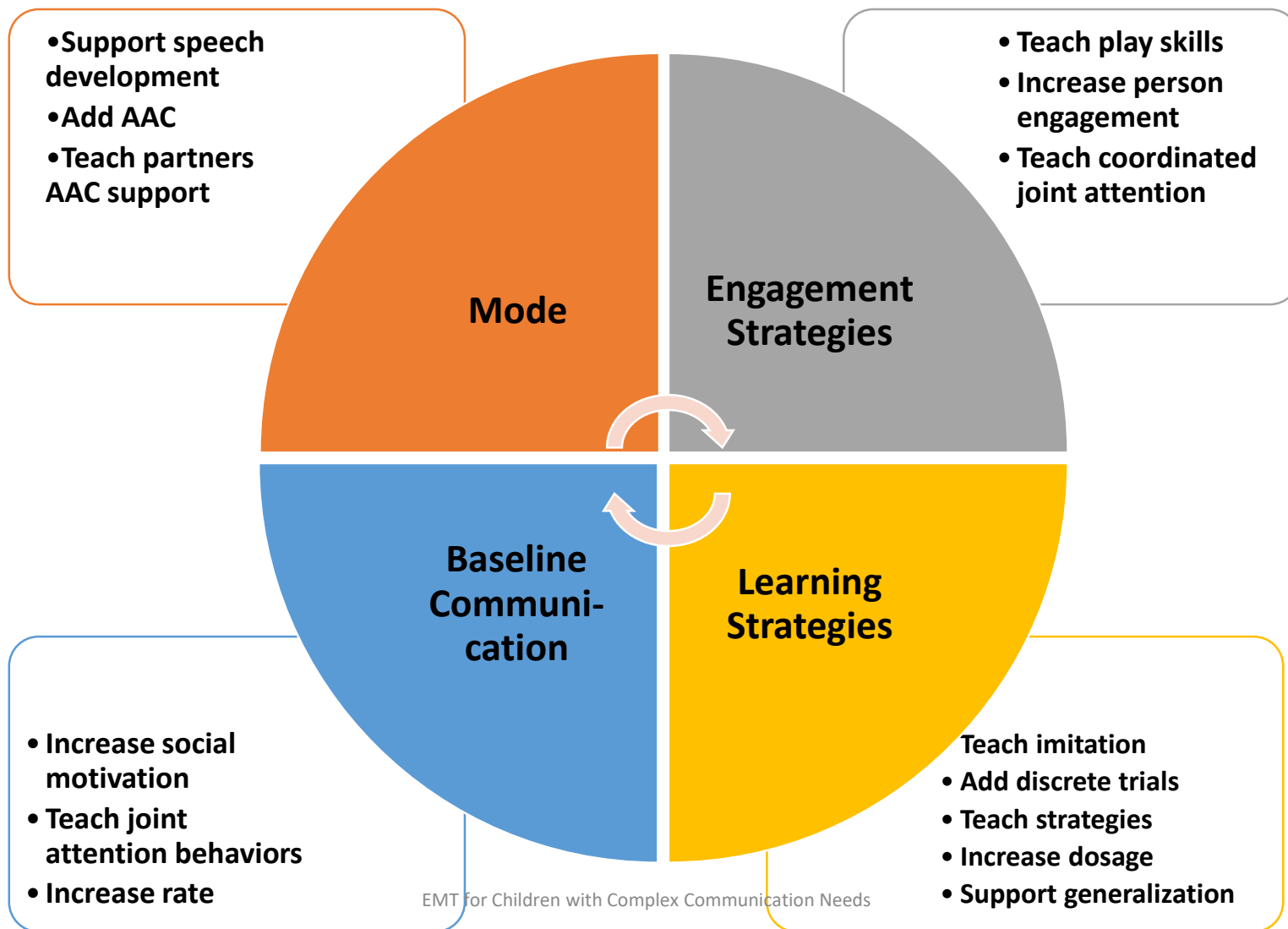
Children with Autism

Communication Challenges	Adaptations
Difficulty with joint engagement and nonverbal communication foundations	Model and teach joint engagement behavior
Limited play skills and brief duration of play	Model and teach play skills to support engagement, language teaching, cognitive development
Requesting rather than commenting (limited social interest)	Model commenting, limit requesting Increase social motivation
Very low rate spoken language,	Add SGD, teach joint engagement, behaviors,
Interfering behavior	Teach to strengthen social motivation, differentially, support positive behavior

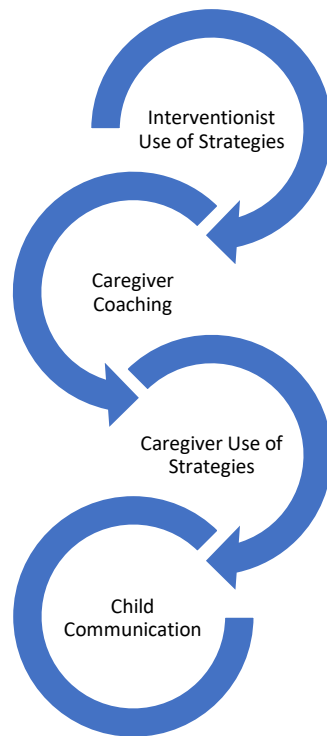
Jasper-EMT for Children with ASD

Communication Challenges	Adaptations
Difficulty with joint engagement	Model and teach joint engagement behavior
Few play skills and brief duration of play	Model and teach play skills
Requesting rather than commenting	Model commenting, limit requesting
Interfering behavior	Determine which behaviors are communicative; respond differentially
Very low rate spoken language	Add SGD

EMT Modifications For Children with ASD



Individualized Systems Of EMT for Young Children with ASD



Individualization

- Child social communication targets
- Child linguistic targets
- Child mode
- Direct teaching (DTT)
- Caregiver Training and Coaching
- Balance of Therapist Intervention/Caregiver-implemented intervention
- Progress monitoring and adaptations
- (Collaboration with other therapies and educational intervention)

Conclusions

- **EMT is both a typical and unique NDBI**
- **EMT is an intervention for both children and their critical communication partners**
- **EMT is designed for adaptation to individuals**
- **EMT is evolving toward an individualized system of instruction**

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Roberts, M. Y., Kaiser, A. P. Wolfe, C., Bryant, J., & Spidalieri, A. (2014). The effects of the Teach-Model-Coach-Review instructional approach on caregiver use of language support strategies and children's expressive language skills. *Journal of Speech, Language, and Hearing Research*. Advance online publication. doi:10.1044/2014_JSLHR-L-13-0113

Recent publications

Kaiser, A. P., Fuller, E. A., & Heidlage, J. E. (In press). Implementing Enhanced Milieu Teaching with children who have autism spectrum Disorder. In Prelock, P. and McCauley, R. (Eds.) *Treatment of Autism Spectrum Disorders: Evidence-Based Intervention Strategies for Communication & Social Interaction (2nd Edition)*. Baltimore, MD: Brookes.

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For more information

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 - Information for parents and practitioners
 - This presentation and other related presentations
- Email me: Ann.Kaiser@Vanderbilt.Edu

