

Research Question 3: What strategies and activities do SLPs advise caregivers to use?

-Review transcript and video, and code portions of the transcript in which the SLP advises a strategy/activity to the caregiver. This includes providing "homework," tips at the end of the session, coaching them to use a strategy through feedback or guided practice, and/or narrating their own actions with the child so the caregiver may use the strategy outside of the session. This may also include problem solving/reflection about ways to work on areas of concern. Do not code portions of the transcript about the skill/behavior they are targeting.

Developmental Strategies

- Model salient language: model language relevant to the child's focus of attention (also known as topically-contingent language).
- Mirroring and mapping: imitate the child's actions and model language describing that action
- Follow the child's lead: parent should go along with the child's play ideas, allowing them to explore the environment/toys/activities in the way they want without redirecting them
- Notice and respond to communication: notice child's communicative attempts and respond meaningfully.
- Take conversational turns: pause for a few seconds after speaking to allow the child the opportunity to communicate (i.e., to take a conversational turn) before saying something else
- Reduce questions: use comments instead of questions or directions. This may be used to reduce demands on the child, encourage child use of comments or initiations, etc.
- Play expansions: model new ways to play with toys. This may be related to building specific play routines, encouraging "cognitive flexibility"/flexibility in play, building play skills, and more.
- Reduce length of utterance: Use short, simple sentences when communicating with the child to better match their language level.
- Label own action: talk about what you're doing/own actions while playing/interacting with the child. Also known as "Self Talk"

Behavioral Strategies

- Communication Temptations: manipulating the activity or routine to elicit child communication. Includes strategies such as pausing within a routine, violating the child's expectations, sabotage, etc.
- Environmental arrangement: arrange objects in the environment to elicit child communication. This may include handing the child a closed container, holding an object just out of reach so they must ask the adult for the object, etc.
- Offer choices: offer the child choices instead of giving them an object directly so that the child must communicate their preferences

- Prompt: prompt the child to use a targeted communication skill. Includes guidance about when to prompt, when not to prompt, and how to prompt.

Communication Supports

- Visual/tactile/non-verbal cues: use cues to encourage child communication and skills. This includes exaggerated facial expressions or gasping, showing objects/pointing when talking about them, touching the child's arm to cue for "my turn", etc.
- Model specific words or word types: model a specific word (e.g., a specific phrase to focus on for that week, carrier phrase) or type of word (e.g., exclamations, functional words, two word phrase)
- Use sign language: model and encourage child use of sign language to communicate
- Use PECS: advise parent to use PECS, including general encouragement to use it during the week and specific guidance about how to use PECS (both in the session and for home use between sessions)
- Pause to give child processing time: pause after asking a question, giving a direction, to allow the child time to process the language before expecting a response from the child

Emotional Regulation/Challenging Behavior

- Give space/time alone: parent should allow the child to play independently, be in their own space, etc., to calm down before rejoining
- Use specific toys/activities of interest: Allow child to play with specific toys/activities they enjoy when they're upset to help them regulate and rejoin the ongoing activity
- Identify antecedents of behavior: Advise parent to identify what happens before the child gets upset or uses a behavior identified as difficult by the parent, in order to avoid the upsetting situation in the future. May also include brainstorming about what the possible antecedent may have been and plans to avoid it in the future

Sibling Interactions

- Find activities both siblings enjoy: identify and encourage siblings to engage in activities that they both enjoy and can successfully participate in/exchange objects/cooperate
- Model language for *target child*: Model language for the child to use to regulate their sibling's behavior (e.g., asking their sibling questions, protesting sibling's actions, sharing with the sibling). This will often occur when the primary child (i.e., the child in EI) is the older sibling and is learning to interact with the younger sibling, but may not always be the case.
- Model language for *sibling*: Model language for the *sibling* to use to facilitate interactions with the primary child. This will often occur when the sibling is older than the primary child.
- Other sibling strategies: Other strategies used to facilitate sibling interactions that may be specific to the child/family/activity

Other activities or strategies

- Use sensory activities: SLP advises the parent to use sensory activities, including gross motor/"heavy work", sensory bins, etc., to regulate child's sensory needs and keep them engaged in the activity (including gross motor/"heavy work", sensory bins)
- Small, contained spaces: Play with the child in small spaces to support their attention/engagement/sensory needs
- Other strategies: Any other idiosyncratic strategy that does not fall into another category.

Research Question 4: What child skills, behaviors, and developmental domains do SLPs and caregivers discuss?

-Review transcript and video, and code portions of the transcript in which the SLP and caregiver discuss a specific skill, behavior, developmental domain. This may include skills targeted by a specific strategy, areas in which they've seen progress, SLP questions about parent concerns or observations, parent reports about their own concerns, goals they want to target, and more. These conversations must be specific to the child. Conversations about general topics (traffic, weather), scheduling, etc., do not get coded.

Language and Communication

- **Spoken language:** discuss the child's expressive spoken language or communication skills. This includes progress, observations about, increases in, etc., use of spoken words and vocalizations. This may include observations/parent reports of a new word, that they've generally noticed increases in the child's vocabulary, that the child is vocalizing or talking more, that they're using longer sentences, or ways to get them to use longer sentences or more words/vocs. This may also include observations of the use of words/vocalizations in the moment (example: "I think he just said 'more'").
- **Requesting:** discuss progress, observations, etc., about the child's ability to request desired objects/actions. Includes statements such as, "he tells me what he wants," and "let's model pointing to request so he can still express what he wants even if he doesn't have the word yet."
- **Gestures:** discuss progress, observations, etc., about the child's use of gestures. This includes general observations ('she's using more gestures') and observations of specific gestures/gesture types, both in the session and out of the session ("all week she's been putting her hands up to gesture "oh no!"; "she just used this gesture for "oh no!" when the block fell").
- **Initiating conversations/interactions:** discuss progress, observations, etc., in initiating conversations and interactions with others. Modality by which they initiate these interactions does not matter for it to be coded here. This can include things like describing the actions the child uses to get attention/initiate interactions (e.g., "he'll fall to the floor and put his arms in the air to get your attention", "she'll pretend to bump into something and say "I'm okay!" until we look at her), but *does not include* any instance when they

discuss a social communication act the child does spontaneously (without prompting; the child may spontaneously say "help", but the function of that is to request, so it wouldn't be coded as "initiating" just because the child did not need support to say it). They must describe the function of that action as initiating interactions/getting attention/etc., in order for it to be coded here.

- **Joint engagement:** this specifically refers to the *social, dyadic/triadic* type of engagement/attention, not being engaged with objects or attending to toys. For example, if the SLP says "he was so engaged with that puzzle" that is not *joint* engagement, that would be attention or play (see below). This code refers to the social skills of joint engagement, such as shared gaze, attending to what other people are doing, being focused on the interaction instead of just objects/toys, etc. Also includes references to not paying attention to siblings/others when playing together (although not use the term 'joint engagement', they are likely describing that the child plays in parallel or object-engaged JE states), supports they can do to facilitate more coordinated engagement ("she will look at her brother if I put the toy in between them"), etc.
- **Eye contact:** discuss progress, future steps, etc., in child's use of eye contact. This can include observations of the child's behavior in the moment, predictions about how the child will use eye contact during activities/with different communication partners, how the provider and/or parent would like to see eye contact develop, discussions about the importance of eye contact, etc.
- **Questions:** discuss progress, observations, etc., in the child's ability to ask and answer questions. They may discuss question asking/answering as a skill on its own (e.g., answering yes/no questions, asking for the names of objects), or in the context of another communicative function (e.g., asking questions to initiate social interactions), in which it can be coded for both functions depending on the phrasing.
 - Ex: "I want him to start asking you which one you want"=questions. "I want him to start asking you which one you want because this will help him initiate interactions with others"=questions AND initiating interactions/conversations.
- **Articulation:** discuss progress, future steps, observation of, etc., the child's articulation and pronunciation of sounds. This includes explanation of a child's articulation error in the moment (example: "He used /t/ instead of /k/ to say "ok" just now"), and how the child imitated or made particular speech sounds. If it seems like they're targeting speech sounds (pure imitation of sounds, blowing bubbles, looking in mirrors, etc.), then it gets the articulation code. If it is a comment on them vocalizing in general, code it as spoken language.
- **Receptive language:** discuss progress, observations, etc., in the child's receptive language. This should be used when the discussion specifically mentions receptive language and/or child understanding of language; many providers may refer to receptive language by describing observable behaviors (e.g., following directions, answering questions)—in those cases, *code for the observable behavior they comment on rather than grouping it in with receptive language*. If the provider/parent says, "His receptive language seems to be improving! I noticed him following more directions today" the first sentence may get *receptive language* and the second sentence may get *following directions*. (Reason for difference: talking about a domain of communication VS talking about a specific skill)

- **Following directions:** discuss progress, observations, etc., about the child's ability to follow directions. Includes observations during the session ("she did a great job following my directions during that activity"), general updates ("how has she been doing with following directions during bedtime?"), and ways to support the child in following directions ("let's use shorter sentences when we give her directions to help her understand the language better"; "he needs a few seconds to process and then he will follow the direction").
- **Echolalia:** discussions of the use of immediate or delayed echolalia. If they just mention the child repeating the last thing the adult says (e.g., "if I give two choices, he always just repeats the last one I say even if he doesn't want it") that can also get coded here because that describes the behavior of immediate echolalia, just without using the term echolalia.
- **Sign Language:** discuss progress, observations about, etc., child's use of words from signed languages. This can include general observations ("she's using more sign language"), potential goals ("I want to start working on the sign for 'more'"), and discussions about whether sign language is appropriate ("should we keep signing even though he's starting to talk more?"). Also includes in the moment observations of the child's use of sign language ("She just signed 'all done'").
- **Turn taking:** this refers to the child's skills in taking turns in actions, like sharing and taking turns during play. This does not refer to taking conversational turns, but the social skill of turn taking.
- **Commenting:** discuss progress, observations, etc., about the child's use of the communicative function "commenting". This includes things like the child commenting on things they see or are interested in, describing things they are doing, providing information, etc.,
- **Other social communication:** Discuss any other skill related to language and social communication that is not otherwise specified, and is not also found in at least one other session.

Play and Cognitive Skills

- **Play:** discussion of child's play skills, progress, new play actions that they tried that day, etc. Also includes discussion of child being "rigid" in how they play with toys and trying to encourage expansions/new ways of playing. Also includes conversation about preferred toys, how the child enjoyed a specific toy/activity, and possible toys/activities they could play with at home during the week This includes general commentary ("he liked the playdoh today!" "she did great with the doctor kit") and parent anecdotes about the child using specific toys/activities between sessions.
- **Attention:** Discussion in which the parent/SLP talk about the child's attention span, that they were engaged in activities for a longer/shorter time, etc.. This does not refer to *joint* engagement, the social communication skills (see above). Sometimes these are discussed in conjunction (i.e., "he will play with X toy for a really long time, but he gets hyperfocused and stops paying attention to his sibling", in which case it could get both codes ("for a really long time"=attention span/engagement, "stops paying attention to his sibling"=joint engagement/attention)).

- **Problem solving:** Discuss the child's problem-solving skills and persistence in figuring out how to use objects. Usually this happens in reference to toys like puzzles, figuring out how to open containers, etc., and often will occur with mention of the child's persistence—that they'll spend more time trying to figure out how something works and keep trying for longer periods of time before abandoning, asking for help, or getting frustrated.

Family Values and Routines

- **Sibling interactions:** discussion of sibling interactions. Includes general discussion of how things are going, wishing to target sibling interactions, etc.. Do not code portions of the transcript in which they discuss *strategies* to target this skill (this is in RQ3).
- **Daily routines:** discussion of child's participation in daily routines (e.g., bathtime, getting dressed, washing hands). Includes general discussion of identifying important routines through which the SLP/family can work on child skills ("are there certain routines she has a hard time with where we can focus on modeling more language/work on following directions?")
- **Potty training:** Discuss how child is doing with potty training
- **EI services/preschool:** SLP and caregiver discuss topics related to the child's other EI services and service providers, and/or the transition to preschool. This includes topics related to the classroom size they think will be appropriate for preschool, whether or not the child should receive additional hours or services from another provider, how the parent feels about the transition or other providers, and discussion of any other school or service-related topic. Conversation about general logistics (scheduling the meeting) are *not* coded.
- **Other family values:** Discussion of any other family value not included above, and not discussed in other videos.

Autism-Specific Skills/Behaviors/Domains

- **Emotional regulation/challenging behaviors:** caregiver and SLP discuss child behavior and dysregulation, including reasons why they think the child is upset/sad, description of moments when the child has demonstrated behaviors of concern in the past or in the current session.
- **Sensory needs:** any discussion of child's needs, preferences, behavior, in different sensory environments or activities. Includes discussion of child's sensory needs (e.g., "she needs to move to concentrate") and like/dislike of sensory-based activities ("he concentrates really well during sensory-based activities" "these kinds of activities help calm her down"). Sometimes this will be coded in conjunction with another skill (e.g., discussion about joint engagement increasing/decreasing during sensory activities, talking more/less during certain sensory activities)
- **Restricted/repetitive behaviors:** discussion of repetitive behaviors, the child's restricted interests, etc.. Simply saying "he loves firetrucks" or "she lined them up" isn't enough to get this code unless they specifically mention it as a "restricted" interest, say that the child is "inflexible" and don't want the object manipulated in any other way, etc.. some parents use the word "obsession," which could be coded here.

Other skills, behaviors, and domains

- **Diet:** discussion of child's diet and eating habits, including reference to "special diets" and supplements.
- **Sleep:** discussion of child's sleep habits, including concerns about sleep, if the child did not sleep enough, etc.
- **Pre-academic skills:** discussion of academic/school readiness skills, such as knowledge of colors/numbers/letters, counting, etc.. These skills are often targeted to ensure the child is "ready for preschool," in preparation for the transition to Part B IDEA services.
- **Other:** Discussion of any other skill, behavior, or domain that does not fall into another category and is not discussed in any other video.