The SCERTS™ Model

A Comprehensive Educational Approach for Children with Autism Spectrum Disorders

SCERTS™

Volume II
Program Planning & Intervention

by

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The case studies in this book are fictionalized accounts based on the authors' clinical
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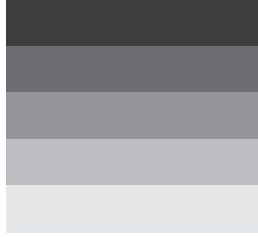
Chapter 4

Linking Transactional Support Goals to Social Communication and Emotional Regulation Goals

In this chapter, we address the integrated nature of the SCERTS Model in specific reference to how Transactional Support goals must be linked to goals in Social Communication and Emotional Regulation. Nevertheless, it is important to emphasize once again that although we have identified the primary domains of the model in reference to Social Communication, Emotional Regulation, and Transactional Support, we do not mean to imply that these domains are separate and distinct. On the contrary, in child development, and therefore in our assessment and educational programming approaches in the SCERTS Model, these domains are intimately interrelated and interwoven. Therefore, in practice, a child's abilities as well as potential in social communication and emotional regulation cannot be viewed apart from the transactional supports that are influencing a child's behavior and how the child's behavior is influencing partner behavior. More specifically, we now address the process of how interpersonal supports and learning supports are assessed and targeted when implementing the SCERTS Model.

IMPORTANCE OF ADDRESSING CHILD AND PARTNER GOALS

Transactional Nature of Developmental Challenges

Developmental challenges are transactional in nature. That is, such challenges are dynamic and are determined by child-specific factors, factors external to the child, and the interaction among these factors. If this were not the case, one would assume that a child's difficulties and progress would be determined solely by the type and severity of a child's developmental difficulties. For example, one would assume that a child's sensory, motor, cognitive, and social disabilities and so forth are fixed and that there is no potential for affecting such difficulties. When professionals work with caregivers to develop programs that will have a positive impact on a child's development and learning, they are working under the assumptions that such difficulties are not fixed and that there is tremendous potential for growth and change.

In the SCERTS Model, the transactional nature of development is addressed in two primary ways. First, relationships among different aspects of development, such as social communication, emotional regulation, and learning, are viewed as fluid and inseparable. Therefore, we expect that improvements in one domain, such as emotional regulation, will positively influence social communication and learning. Second, the

role of a child's partners, including family members, peers, educators, and other caregivers will have a significant and long-term impact on the child's development. This impact occurs through interpersonal and learning supports provided by those partners, including how environments and everyday activities are arranged to support active participation and learning. We now summarize those aspects of child development, partner style, and the environment that influence a child's developmental achievements in social communication and emotional regulation.

1. *There is a strong relationship between a child's achievements in social communication and a child's achievements in emotional regulation.* Again, relationships among different aspects of development, such as social communication, emotional regulation, and learning, are viewed as fluid and inseparable. Therefore, we expect that improvements in one domain, such as emotional regulation, will positively influence social communication and learning. When a child develops a greater capacity to regulate arousal in social activities, for example, gains will likely be observed in that child's capacity to engage in reciprocal interaction with adults and peers.

2. *There is a strong relationship between a partner's implementation of interpersonal supports and a child's achievements in social communication and emotional regulation.* As noted, the role of a child's partners will have a significant and long-term impact on a child's development. Interpersonal supports such as being responsive to the child, fostering the child's initiation, respecting the child's independence, and modeling appropriate behaviors will directly support the child's development of social-communicative and emotional regulatory abilities. Additional interpersonal supports include the partner's ability to set the stage for active engagement, provide developmental support, and adjust language input based on the child's unique learning style and needs.

3. *There is a strong relationship between a partner's implementation of learning supports and a child's achievements in social communication and emotional regulation.* Learning supports provided by sensitive partners, including how environments and everyday activities are arranged to support active participation and learning (e.g., environmental arrangements, visual supports, activity modifications), have a significant impact on a child's development.

Child Progress or Lack of Progress Is Determined by Multiple Factors

Factors that influence a child's progress or lack of progress may be conceptualized in three major categories: within-child factors, partner factors, and environmental factors. These risk and protective factors were discussed and presented in Chapter 3 of Volume I. We briefly consider such factors, keeping in mind that they are not fixed and may be influenced by factors from other categories.

Within-Child Factors

It is now accepted that factors specific to a child's developmental and neuropsychological profile may have a significant impact on the child's abilities and development in social communication and emotional regulation. For example, impairments in a wide variety of developmental domains, such as sensory processing and motor, cognitive, and social development, put a child at increased risk for experiencing difficulties in social communication and emotional regulation. Other factors such as general health, allergies, and sleeping and other regulatory problems also may affect a child. Such factors are typically referred to as *biological* or *constitutional risk factors.* Many, but not all, of these within-child factors are not directly under the control of caregivers and professionals.

However, if these risk factors were the sole or primary determinants of children's developmental outcomes, we would expect that children with very similar factors associated with their development such as similar neurological impairments, genetic syndromes, or sensory profiles would be very much the same and develop the same. Research has demonstrated that this is not the case. For example, seminal research on early intervention outcomes (Shonkoff, Hauser-Cram, Krauss, & Upshur, 1992) demonstrated that factors outside of the child, such as family factors, are better predictors of the developmental outcomes of children with neurological and developmental disabilities than are within-child factors. Furthermore, it is now understood that neurological development is also transactional. That is, neurological development, and therefore a child's functional potential, is greatly affected by the types of stimulation and learning experiences provided by caregivers and the environment. Therefore, other factors must help provide an understanding of how caregivers and professionals may have positive influences on supporting a child's development.

Partner Factors   A basic premise of the SCERTS Model is that partners play the most critical role in supporting a child's development. Furthermore, this role goes well beyond the implementation of teaching strategies in structured or semistructured learning lessons to help the child learn new skills. It includes how partners teach skills in social communication and emotional regulation and support their use in everyday activities through the incidental interactions that occur in such activities. As discussed in Chapter 3 of Volume I, when a child experiences activities and interactions as successful and emotionally satisfying over time, and thus associates positive emotional memories with such activities and interactions as well as with the people involved with those activities, the child is more likely to want to be with and remain engaged with partners and seek out similar experiences. Conversely, if a child experiences activities and interactions as confusing, disorganizing, unmotivating, and stressful, the child is more likely to attempt to cope rather than learn by putting considerable energy into avoiding people and activities associated with those negative feelings. In the SCERTS Model, the history of positive interactions with partners who are able to support social communication and emotional regulation in everyday activities is the foundation of the development of positive and trusting relationships.

The importance of interpersonal support was eloquently described by Ros Blackburn (2005), a 35-year-old woman with autism. In discussing what was helpful to her during states of extreme dysregulation, she noted that the very presence of people she trusted and with whom she had a positive history could be the most important regulating factors. In fact, she recommended that during more extreme states of dysregulation, she is best supported "in silence, and through the presence of another person," rather than through active physical or verbal attempts to help her regulate.

In the SCERTS Model, specific interpersonal supports, extracted from more than 30 years of developmental research and clinical experience, are assessed in partner behavior as part of the SAP and are targeted in educational programming by linking child goals in Social Communication and Emotional Regulation to Interpersonal Support goals for partners. Therefore, we view learning as a mutually influential partnership, in which a child and his or her partners must collaborate to create positive and emotionally satisfying activities for learning and mutual enjoyment. Whenever necessary, partners must provide guided participation to support the child in being successful, rather than imposing their will on the child to coerce him or her to learn skills or to

behave in a certain manner. Thus, partners guide and facilitate in the teaching and learning process to maximize motivation and self-determination rather than direct and control, which is more likely to result in passivity and, in some cases, refusal and resistance.

A critical component for such a partnership is knowledge of a child's developmental capacities so that learning can be targeted within the child's zone of proximal development. In other words, partners need to be highly sensitive to ensuring developmentally appropriateness, in reference to the child goals that are targeted as well as to the partners' behavior in supporting development.

Environmental Factors

The third category of factors is how environments are arranged and learning supports are used in educational programming and in everyday activities to support children's social communication and emotional regulation. Research, clinical experience, and firsthand accounts of people with ASD clearly indicate that environments and activities that are overly stimulating on a sensory level, visually disorganized, and/or unpredictable tend to be confusing and stressful, resulting in increased dysregulation and therefore reduced capacities in social communication and learning. In contrast, environments that have levels of stimulation that are organizing, that are within a person's processing capabilities, and that have predictable qualities tend to support emotional regulation. Whenever necessary and possible, sensitive partners attempt to control or modify environmental factors, such as by lessening noise or by reducing visual clutter in such a manner as to support emotional regulation. Furthermore, activities may be designed to create the motivation, opportunities, and needs to communicate.

In many cases, specific environmental supports may be designed and infused in activities throughout the day to support social communication and emotional regulation. It is now well known that the use of visual supports is very effective for children with ASD in clearly delineating many aspects of daily routines such as time schedules, steps within activities, time left to complete activities, and so forth. Modifications to academic curricula and activity adaptations (e.g., adjusting the social complexity of an activity, infusing an activity with motivating materials and topics, modifying the sensory properties of an activity) are also important factors in supporting children with ASD. Environmental factors that are delineated in the SCERTS Model and educational and learning supports that clearly are under the control of partners have been shown to have a major positive impact on children's success, as children spend more time actively learning rather than simply coping.

HOW TRANSACTIONAL SUPPORT GOALS ARE IDENTIFIED AND LINKED TO SOCIAL COMMUNICATION AND EMOTIONAL REGULATION GOALS

We now discuss some basic considerations in operationalizing how the Social Communication, Emotional Regulation, and Transactional Support domains of the SCERTS Model and the specific goals across these domains become interrelated when designing activities for a specific child's educational plan. The following considerations are offered as general guidelines and are followed by a more in-depth review organized by Social Communication and Emotional Regulation goals with examples of relevant transactional support at different developmental levels.

1. *There is no one-to-one correspondence between individual Social Communication or Emotional Regulation goals and Transactional Support goals, as multiple transactional support factors may affect progress in social communication and emotional regulation.* It would be overly simplistic to attempt to identify a specific Transactional Support goal that is most relevant for each Social Communication or Emotional Regulation goal for a specific child. To do so would deny the great individual differences across chil-

dren and their partners. For example, for the Conversational Partner Symbol Use goal *Learns by imitation, observation, instruction, and collaboration,* it is conceivable that a number of Transactional Support goals may be relevant and effective. For example, under the Learning Support goals in the Transactional Support domain, it may be necessary to target the goals *Partner structures activity for active participation* and/or *Partner uses visual and organizational support.* To determine the appropriate Learning Support goal for the Symbol Use goal just noted, it would be necessary to refer to the SAP-O Form to determine which supports are already in place and a child's response to such supports. As will be expanded on in the following sections, this is a dynamic process in which Transactional Support goal linkages to Social Communication and Emotional Regulation goals must be problem-solved in team meetings.

2. *Relevant transactional support factors for a child may vary depending on child-specific factors (e.g., learning style, arousal bias) and child-specific challenges in social communication and emotional regulation.* Another important consideration is the specific child factors that are most relevant in determining how transactional supports are linked to Social Communication and Emotional Regulation goals. For example, when addressing the Joint Attention goal *Shares emotion* with a child who is a strong visual learner, there may be greater emphasis placed on the Transactional Support goal *Partner uses augmentative communication support to encourage development* than for a child who is more adept at learning language and understanding language concepts through the auditory modality.

   Therefore, Transactional Support goals are identified by addressing those supports that are most likely linked to Social Communication and Emotional Regulation goals, based on assessment of Transactional Support in the SAP-O, a child's current abilities and weaknesses as determined by the SAP, and hypothesized challenges to the child's development discussed by the team.

3. *Because no one transactional support factor determines progress for each Social Communication and Emotional Regulation goal, the team must identify the most likely factors in transactional support in determining goals, affect change in those factors, and assess the impact on a child's development.* Once the likely factors in transactional supports are addressed in the child's educational programming by setting specific goals in interpersonal and learning supports, the child's progress in achieving the designated Social Communication and Emotional Regulation goals must be monitored carefully. This must be done to assess the impact of the supports on the child's development, whether it be positive or negative. If it is determined that progress is occurring more slowly than expected toward specific goals, appropriate changes may be made in Transactional Support goals to continue efforts to support the child's development.

DETERMINING TRANSACTIONAL SUPPORT GOALS AT EACH DEVELOPMENTAL STAGE

The remainder of this chapter is intended to be used as a resource for a child's educational team to support discussions regarding the development of appropriate interpersonal and learning supports for an individual child. Appropriate sections may be referred to when developing a child's program, specific to linking Social Communication and Emotional Regulation goals with Transactional Support goals.

We now address the process of determining appropriate Transactional Support goals more specifically by reviewing the Social Communication and Emotional Regu-

lation goals for children at the Social Partner, Language Partner, and Conversational Partner stages of development and considering the role of Transactional Support goals for the partner in helping a child reach these goals. As natural routines across home, school, and community environments provide the educational and treatment contexts for learning and for supporting the development of positive relationships, the SCERTS Model uses a continuum of learning contexts in these settings, from planned activity routines to naturally occurring activities, as discussed in Chapter 1 of this volume. Along this continuum, Transactional Support goals for Interpersonal Support and Learning Support allow partners to encourage a child to progress in specific Social Communication and Emotional Regulation objectives.

As discussed in Chapter 1 of this volume, the SCERTS Model incorporates activity-based learning as a primary method to support the development of children with ASD. A MA & PA approach is used in which meaningful and purposeful activities are developed based on the goals for and developmental capacities of a child and are provided systematically throughout the child's daily routines. Chapter 1 of this volume includes guidelines for selecting appropriate activities for the child and determining the activity structure based on the continuum of naturalness. As noted previously, as many as two to five goals for the child may be embedded into a given activity-based learning context. Thus, the careful implementation of transactional supports within that activity will support a child's developmental achievements toward Social Communication and Emotional Regulation goals. The SAP Activity Planning Form, provided in Appendix A of Volume I, is an essential tool for planning the child's daily activities, the targeted Social Communication and Emotional Regulation objectives, and the critical Transactional Support goals that will be considered.

As interpersonal supports and learning supports are embedded across a number of natural activities, they will differ based on what is considered appropriate and natural for that activity context. For example, when implementing the Learning Support goal *Partner uses visual and organizational support* at the Language Partner stage, the supports that will be infused in a circle time activity in the classroom, such as the use of carpet squares and a picture schedule to denote the sequence of stories and songs, will most likely be different than the supports that will be used on the playground. Supports on the playground may include a choice board to remind the child of cooperative games that could be initiated and footprints in a line to denote where to line up at the end of recess. The potential range of variation in the implementation of a specific Transactional Support goal is highlighted later in this chapter.

Ongoing assessment of the effectiveness of transactional supports and partner goals is essential, particularly if a child is having difficulty in an activity. Increased rehearsal and practice may be needed to help a child become more familiar with the activity. For example, a planned activity routine, in contrast to a modified natural activity, might be most appropriate to provide the practice needed, and/or it may be appropriate to infuse more intensive transactional supports such as visual supports and environmental modifications to support the child's emotional regulation in the relatively unfamiliar activity. Such determinations are not the result of a static, "one-shot" process that is decided at an initial team meeting. Rather, a child's partners need to continually evaluate the impact of their interpersonal style and/or provision of learning supports on the child's success or lack thereof in a given activity on a daily, weekly, and quarterly basis.

We now address special considerations in linking Transactional Support goals to Social Communication and Emotional Regulation goals relative to the Social Partner,

Language Partner, and Conversational Partner stages. Each table that follows lists a child goal in Social Communication or Emotional Regulation and related partner goals in Interpersonal Support and Learning Support. In addition, for the child goals, the tables list *linked goals/objectives,* which are identical or nearly identical to goals or objectives in other components of the SCERTS Model (marked on the SAP-O Forms with = and ≈), and *related goals/objectives,* which are related to goals or objectives in other components of the SCERTS Model and should be targeted together during intervention (marked on the SAP-O Forms with ↔).

SOCIAL PARTNER STAGE

At the Social Partner stage, a child's partners have a significant impact on supporting the child's ability to become a more active social and communicative partner, to communicate with purpose or intent for a range of communicative functions, and to acquire and use conventional gestures and vocalizations within social-communicative exchanges. Likewise, the child's partners have a significant impact on the child's ability to be available for learning, to use effective behavioral strategies for self-regulation, and to request partner assistance to achieve and maintain a well-regulated state. As outlined earlier, there are a number of essential considerations when determining how to prioritize specific Transactional Support goals for the child's partners. The charts included for each goal area may be referred to as a resource for educational teams as they determine which Transactional Support goals should be considered when addressing specific Social Communication and Emotional Regulation goals for a child at the Social Partner stage. *Please note that the objectives related to the goal areas in each table are defined in Chapter 8 of Volume I.* Following each goal area, a "snapshot" example is provided of how each of the named Transactional Support goals might be modified based on the nature of the specific activity and child-specific factors (e.g., whether a child has a bias for a high state of arousal versus a low state of arousal, whether a child is a visual learner or an auditory learner).

Social Communication: Joint Attention

JA1 Engages in reciprocal interaction (Social Partner stage)

Child goal	Related partner goals	
Joint Attention JA1 Engages in reciprocal interaction	*Interpersonal Support* IS1 Partner is responsive to child IS2 Partner fosters initiation IS4 Partner sets stage for engagement	*Learning Support* LS1 Partner structures activity for active participation LS4 Partner modifies goals, activities, and learning environment
JA1 is linked to SR1. *Linked objectives* JA1.1 Responds to bids for interaction (= MR2.3) JA1.2 Initiates bids for interaction (= SR1.4) JA1.3 Engages in brief reciprocal interaction (= SR1.5) JA1.4 Engages in extended reciprocal interaction (= SR1.6)	A child's ability to respond to bids for interaction (JA1.1) and initiate bids for interaction (JA1.2) relies on a partner's ability to be responsive to the child's focus of attention (IS1.1), respond to the child's signals to foster a sense of communicative competence (IS1.3), offer choices nonverbally and verbally (IS2.1), and wait for and encourage child initiations (IS2.2).	A child's ability to engage in both brief and extended reciprocal interactions (JA1.3, JA1.4) relies on a partner's ability to modify the environment to create turn-taking opportunities and leave spaces for the child to fill in (LS1.2), provide a predictable sequence to an activity (LS1.3), and arrange the learning environment to promote child initiation (LS4.5).

Snapshot of Kendra

Kendra is a 2-year-old Social Partner who is working on initiating bids for interaction (JA1.2). She is described as a somewhat aloof, self-directed child who appears to fulfill her needs on her own. She may reach for a desired object but is not yet coordinating these gestures with gaze to ensure shared attention with a partner. Her partners discussed the need to achieve greater consistency with responding to her signals to foster her sense of communicative competence (IS1.3), wait for and encourage her initiations with others (IS2.2), and arrange learning environments to promote a higher frequency of initiation (LS4.5).

Playtime at home: Kendra's team discussed that during playtime at home, Kendra often engages in solitary play with preferred toys (e.g., music boxes, cause–effect pop-up toys). Her partners have found it challenging to encourage Kendra to communicate in this context. As Kendra's current goals include initiating bids for interaction, her partners discussed the need to modify playtime to promote a higher frequency of initiation from Kendra by *capturing her interest with toys requiring adult assistance* (i.e., by using communicative temptations). Providing toys such as wind-up toys and bubbles with a tight lid would provide more frequent opportunities for Kendra to practice communication with adult caregivers. Initially, her partners would need to *respond to each of Kendra's communicative bids, regardless of their subtle nature,* to foster her sense of competence. Her partners discussed that the next step, after she is more comfortable with the interactions, would be to *pause or delay before offering assistance* to encourage use of a gesture or vocalization to request.

Bedtime: As part of her bedtime routine, Kendra enjoys gathering her favorite toys from preferred videos (e.g., Teletubbies figurines) and lining them up along the headboard of her bed. Her team members noted that her partners could arrange this environment to promote a higher frequency of initiation by *placing these desired objects out of reach or in sealed see-through containers that would require partner assistance to be opened.* Rather than having all of her toys accessible, opportunities to communicate can be created by her partners. In addition, Kendra's team discussed the need for her partners to wait expectantly by standing in close proximity while looking up at a figurine to encourage her initiations for assistance.

JA2
Shares attention (Social Partner stage)

Child goal	Related partner goals	
Joint Attention JA2 Shares attention	**Interpersonal Support** IS1 Partner is responsive to child IS2 Partner fosters initiation IS4 Partner sets stage for engagement	**Learning Support** LS1 Partner structures activity for active participation LS4 Partner modifies goals, activities, and learning environment
JA2 is linked to SU2. **Linked objectives** JA2.3 Follows contact point (= SU2.4) JA2.4 Follows distal point (= SU2.5)	A child's ability to look toward people (JA2.1) and shift gaze between people and objects (JA2.2) relies on a partner's ability to respond to the child's focus of attention (IS1.1), wait for and encourage the child's initiations (IS2.2), and use appropriate proximity and non-verbal behavior to encourage interaction (IS4.3).	A child's ability to shift gaze between people and objects (JA2.2) and follow both contact and distal points (JA2.3, JA2.4) relies on a partner's ability to offer varied learning opportunities (LS1.5) and arrange the learning environment to enhance attention and motivation (LS4.5).

Snapshot of David

David is a 3-year-old Social Partner who is working on shifting gaze between people and objects (JA2.2). Although he is described as a curious child, with a keen interest

in Thomas the Tank Engine trains and the alphabet, he is not yet sharing this interest with his partners. His partners discussed the need to respond to his focus of attention (IS1.1), use appropriate proximity and nonverbal behavior to encourage interaction (IS4.3), and arrange the learning environment to enhance David's attention and motivation (LS4.5).

Book time at home: David's team discussed that while reading stories at home, David often sits on a parent's lap. Although he is interested in the pictures, particularly in his alphabet books and Thomas the Tank Engine books, he is not yet shifting gaze between his caregiver and the pictures to share this interest. His team discussed the need for partners to consistently modify the learning environment to enhance David's ability to share attention by *maintaining a face-to-face position* when looking at picture books. Likewise, by *pointing to his favorite pictures* and *waiting with one's hands held out in anticipation,* partners may elicit a three-point gaze shift to share these pictures.

Arts and crafts center at preschool: At preschool, one of David's favorite activities is the arts and crafts center, as his teachers have already arranged the learning environment by including motivating materials in this activity. Cut-out pictures of Thomas the Tank Engine are often provided in a basket, along with a stamp kit with letters of the alphabet. To elicit David's shared attention, his partners discussed *the redesign of this center by using a semicircular table* so that a teacher could be directly in front of David as he sorts through the materials. Each teacher in the classroom would then be encouraged to respond to his focus of attention by *commenting on those items that David picks up* and by *using an animated facial expression* to catch his attention.

**JA3
Shares emotion
(Social Partner
stage)**

Child goal	Related partner goals	
Joint Attention JA3 Shares emotion	**Interpersonal Support** IS1 Partner is responsive to child IS2 Partner fosters initiation IS6 Partner adjusts language input IS7 Partner models appropriate behaviors	**Learning Support** LS2 Partner uses augmentative communication support to foster development LS4 Partner modifies goals, activities, and learning environment
JA3 is linked to MR2. **Linked objectives** JA3.1 Shares negative emotion using facial expressions or vocalizations ($\approx$ MR3.1) JA3.2 Shares positive emotion using facial expressions or vocalizations ($\approx$ MR3.2) JA3.3 Responds to changes in partners' expression of emotion (= MR2.4, SU2.7) JA3.4 Attunes to changes in partners' expression of emotion (= MR2.5)	A child's ability to share negative and positive emotion using facial expressions or vocalizations (JA3.1, JA3.2) and attune to changes in partners' expression of emotion (JA3.4) relies on a partner's ability to respond to the child's emotion and pace (IS1.2), wait for and encourage initiations from the child (IS2.2), use nonverbal cues to support understanding (IS6.1), and model appropriate nonverbal communication and emotional expressions (IS7.1).	A child's ability to share negative and positive emotion using facial expressions or vocalizations (JA3.1, JA3.2) and respond to changes in partners' expression of emotion (JA3.3) relies on a partner's ability to use an augmentative communication support to enhance the child's expression and understanding of emotion (LS2.3) and modify activities to be developmentally appropriate (LS4.6).

**Snapshot
of Bridget**

Bridget is a 5-year-old Social Partner who is developing her ability to share positive emotions using clear facial expressions or vocalizations (JA3.2). Although she is described as a happy child, she is not yet sharing her states of emotion with her partners using clear facial expressions paired with gaze to ensure shared attention. Her partners discussed the need to more consistently respond to her emotion and pace (IS1.2), model

appropriate nonverbal communication and emotional expressions (IS7.1), and use augmentative communication support to enhance her expression and understanding of emotion (LS2.3).

Music: In her kindergarten classroom, Bridget clearly displays the most positive emotion during music time. During her preferred songs, she may clap her hands together and jump up on her toes. Her team suggested that in these instances, her partners *provide very clear models of nonverbal emotional expressions* (e.g., smiling and laughing to indicate pleasure) while using an augmentative support (i.e., the sign for *happy*) to enhance her ability to express her emotions in a more conventional manner.

Occupational therapy: As Bridget clearly enjoys movement activities such as swinging and being "squished," her team members recognized that a one-to-one occupational therapy session was an appropriate context to establish planned activity routines to provide Bridget with practice in sharing her positive emotions. In doing so, her partner in this context, her occupational therapist, planned to work on her ability to *provide more sustained or static models of emotional expressions* (e.g., a happy face, clapping) while Bridget is on the swing or being squished in the ball pit. In addition, her occupational therapist would carry over the augmentative communication support discussed for the classroom context (i.e., the sign HAPPY) to heighten Bridget's understanding of her emotional state.

JA4 *Shares intentions to regulate the behavior of others (Social Partner stage)*	Child goal	Related partner goals	
	Joint Attention JA4 Shares intentions to regulate the behavior of others	**Interpersonal Support** IS1 Partner is responsive to child IS2 Partner fosters initiation IS3 Partner respects child's independence IS7 Partner models appropriate behaviors	**Learning Support** LS2 Partner uses augmentative communication support to foster development LS4 Partner modifies goals, activities, and learning environment
	JA4 is linked to MR2 and MR3. *Linked objectives* JA4.1 Requests desired food or objects (≈ MR2.6) JA4.2 Protests/refuses undesired food or objects (≈ MR3.4) JA4.3 Requests help or other actions (≈ MR3.3) JA4.4 Protests undesired actions or activities (≈ MR3.4)	A child's ability to request or protest food or objects (JA4.1, JA4.2), request help or other actions (JA4.3), and protest undesired actions or activities (JA4.4) relies on a partner's ability to respond appropriately to the child's signals to foster a sense of communicative competence (IS1.3); offer choices nonverbally or verbally (IS2.1); allow the child to initiate and terminate activities (IS2.4); honor protests, rejections, or refusals when appropriate (IS3.4); and model a range of communicative functions (IS7.2).	A child's ability to request or protest food or objects (JA4.1, JA4.2), request help or other actions (JA4.3), and protest undesired actions or activities (JA4.4) also relies on a partner's ability to use augmentative communication support to enhance the child's communication and expressive language (LS2.1) and arrange the learning environment to promote child initiation (LS4.5).
	Related goals/objectives Achievements in JA4 are related to achievements in JA7.2, JA7.3, and SU4–SU5.		

Snapshot of Caleb   Caleb is a 6-year-old Social Partner who is developing his ability to share intentions to regulate another's behavior. In particular, he is developing his ability to request *and* protest food or objects (JA4.1, JA4.2). Although he has strong preferences, he continues to have difficulty communicating these to other people. Rather than pointing to a snack container and looking up at a caregiver, for example, he is more likely to attempt

to remove the lid independently and/or to bang the container on the table. Likewise, when he is not interested in an item, he will clearly display this disinterest by dropping the item on the floor or by walking away. Although Caleb is clearly goal directed, his methods of achieving his goals do not yet consistently involve a social component or a bid for shared attention. His partners discussed the need to more consistently offer choices nonverbally or verbally (IS2.1), model a range of communicative functions (IS7.2), and arrange the learning environment to promote his initiation (LS4.5).

Snack time: In the classroom, Caleb's teachers discussed that snack time would provide an appropriate context to foster his ability to both request and protest desired snack items. As Caleb is typically provided with several preferred snack items, his team members recognized the need to *provide a choice of both preferred and nonpreferred snack items* to increase the frequency of opportunities for requesting *and* protesting. By providing both a preferred and nonpreferred snack item, Caleb would be less likely to walk away to reject the nonpreferred snack. Likewise, modifications to the learning environment were also considered critical for facilitating more conventional requests. Preferred items could be placed in *sealed see-through containers that will require assistance to be opened,* a modification to facilitate a give gesture for requesting. *A red basket would be also provided for Caleb to discard nonpreferred items* to discourage Caleb from tossing these items on the floor. The use of *a push-away gesture would be modeled* by team members.

Watching videos at home: After school, one of Caleb's preferred activities is watching a videotape at home before dinner. Typically, Caleb indicates his preferences by tapping a specific videotape that may be laying on the floor until one of his older siblings and/or parents places it in the VCR. His team members recognized this activity as an opportunity to support Caleb's ability to share his intentions for the purpose of requesting and/or protesting. His team discussed the need for partners to modify the learning environment by *placing all of Caleb's videotapes in a locked cabinet* out of his reach. Choices of available videotapes, both preferred and nonpreferred, could be indicated *using laminated portions of the videotape covers on the outside of the cabinet* (either in a choice binder or a folder). A partner would then be able to *model a request for a preferred video-tape* by giving a picture to a partner when Caleb is standing near the video cabinet.

JA5 **Shares intentions for social interaction (Social Partner stage)**	Child goal	Related partner goals	
	Joint Attention JA5 Shares intentions for social interaction	*Interpersonal Support* IS1 Partner is responsive to child IS2 Partner fosters initiation IS7 Partner models appropriate behaviors	*Learning Support* LS1 Partner structures activity for active participation LS2 Partner uses augmentative communication support to foster development LS4 Partner modifies goals, activities, and learning environment
	JA5 is linked to MR3. *Linked objective* JA5.1 Requests comfort (≈ MR3.1) *Related goals/objectives* Achievements in JA4 are related to achievements in JA7.2, JA7.3, and SU4–SU5.	A child's ability to request social games (JA5.2), take turns (JA5.3), and show off (JA5.6) relies on a partner's ability to imitate the child (IS1.6), provide a balance of initiated and respondent turns (IS2.3), and model a range of communicative functions (IS7.2).	A child's ability to request social games (JA5.2) and greet others (JA5.4) relies on a partner's ability to create turn-taking opportunities and leave spaces for the child to fill in (LS1.2), use augmentative communication support to enhance the child's communication and expressive language (LS2.1), and arrange the learning environment to promote child initiation (LS4.5).

Snapshot of Rebecca

Rebecca is a 3-year-old Social Partner who is developing her ability to share intentions for social interaction. In particular, she is developing her ability to request social games (JA5.2). She clearly enjoys music (e.g., the song "If You're Happy and You Know It") and social games (e.g., Peekaboo) but seems to wait for adults to start these games rather than requesting them herself. Her partners discussed the need to provide a balance of initiated and respondent turns (IS2.3) to encourage Rebecca to both request social games and request that they be continued once they have started and use augmentative communication support to enhance Rebecca's communication for this social function (LS2.1).

Music at home: Songs such as "Five Little Monkeys" are quite motivating for Rebecca, who loves the predictability of the phrases and the sensory-motor input from the movement. Nevertheless, she has not yet initiated a request for this song despite her apparent interest when it is initiated by others. Her partners discussed that having an augmentative support would be a helpful visual cue to remind her to ask for this social game. *A "Five Little Monkeys" song board* would be made and placed in her playroom to encourage this request. To encourage active participation, *five picture icons representing monkeys* would be attached to the board with Velcro so that Rebecca could take one off at each phrase to provide a balance between caregiver- and child-initiated requests during the song.

Circle time at preschool: In her preschool classroom, Rebecca's teacher often sings familiar songs to the children to foster their attention and social engagement. These songs (e.g., "Old MacDonald," "Itsy Bitsy Spider," "The Hokey Pokey") are often initiated in a sequence as the first circle time routine. To encourage Rebecca's ability to request social games, her team discussed the need to provide a balance between teacher- and child-initiated requests. Therefore, following the first two songs, a child would be provided with *an opportunity to make a request for a preferred song.* An easel could be used to remind the children of their options. This *easel could display three or four different picture symbols denoting these songs.*

JA6
Shares intentions for joint attention (Social Partner stage)

Child goal	Related partner goals	
Joint Attention JA6 Shares intentions for joint attention	***Interpersonal Support*** IS1 Partner is responsive to child IS2 Partner fosters initiation IS4 Partner sets stage for engagement IS7 Partner models appropriate behaviors	***Learning Support*** LS1 Partner structures activity for active participation LS4 Partner modifies goals, activities, and learning environment
JA6 is not directly linked to SU, MR, or SR. ***Related goals/objectives*** Achievements in JA6 are related to achievements in JA7.2, JA7.3, and SU4–SU5.	A child's ability to comment on an object (JA6.1) and on an action or an event (JA6.2) relies on a partner's ability to respond to the child's focus of attention (IS1.1), wait for and encourage his or her initiations (IS2.2), use appropriate proximity and non-verbal behavior to encourage interaction (IS4.3), and model a range of communicative functions (IS7.2).	A child's ability to comment on an object (JA6.1) and on an action or an event (JA6.2) also relies on a partner's ability to offer varied learning opportunities (LS1.5), arrange the learning environment to promote child initiation (LS4.5), and infuse motivating materials and topics in activities (LS4.7).

Snapshot of Brett   Brett is a 2-year-old Social Partner who is developing his ability to share intentions for joint attention. Although he demonstrates interest in a variety of toys (e.g., toy animals, cartoon figurines), enjoys looking at pictures in photograph books, and often takes interest in events he observes (e.g., a wind-up toy hopping along the table), he is not yet sharing these interests with others by using gestures paired with gaze to indicate his focus of attention. Thus, his current goals include fostering his ability to use presymbolic communicative means such as gestures to comment on an object (JA6.1) and on an action or an event (JA6.2). His partners discussed the need to model a range of communicative means to serve the more social functions of commenting on objects (IS7.2), use appropriate proximity and nonverbal behavior to encourage this interaction (IS4.3), and offer varied learning opportunities (LS1.5) to entice Brett to share his focus of attention.

    Lunch: Brett's team discussed that activities that involve the frequent introduction of novel toys or objects (e.g., drawing objects out a bag, hanging interesting items from the ceiling) are useful for fostering communicative acts for joint attention. Because Brett has shown an interest in holding and exploring his preferred figurines and animal toys while sitting in his high chair, his team decided to modify this activity by increasing novelty to entice Brett's curiosity and interest in sharing. A familiar routine of *presenting a "surprise can" would be introduced at the end of lunch.* This routine involves opening a familiar tin filled with novel and interesting toys that could be taken out one at a time. His partners would then encourage Brett to initiate a comment using a nonverbal gesture such as *a showing gesture,* by using appropriate proximity (i.e., *a face-to-face orientation at Brett's level*) and nonverbal behavior (i.e., *holding out one's hands to show a mutual interest in the toys*). The team further discussed that verbal prompts such as "What is it?" would be avoided in this activity to entice Brett to initiate a show gesture paired with gaze on his own so that he can *actively learn* to initiate to bring his partners' attention to what he is attending to.

    Dressing: Brett's parents discussed that making the transition to his bedroom to change into pajamas would be another useful activity context for eliciting joint attention. When Brett enters his room, he always seems to seek out a preferred item to hold while his parents encourage him to dress. Thus, in this predictable context, his partners could vary one aspect of the activity to provide novelty to entice commenting bids. They discussed *hanging a mobile from the bedroom ceiling.* On this mobile, his parents could *hang a different picture each night* with some of Brett's favorite animals and cartoon characters to draw his attention (e.g., Winnie-the-Pooh characters, farm animals). On entering the room, his parents could then model the communicative function of commenting for joint attention by standing near the mobile, *pointing at the picture,* and smiling in anticipation. Through the addition of something novel each day, Brett will likely begin to anticipate this event with greater interest and excitement.