Welcome to the Jenison Autism Journal
Winter 2002 Issue

- Carol Gray, Editor

The Jenison Autism Journal is thrilled to have this opportunity to introduce our readers to the SCERTS Model (pronounced sers), a multidisciplinary educational and treatment model for children with Autism Spectrum Disorders (ASD). SCERTS is an acronym for Social Communication (SC), Emotional Regulation (ER), and Transactional Support (TS); promoting social communication and emotional competence in naturally occurring contexts while building meaning into daily experiences. Recognizing that the daily activities of a young child revolve around his/her family and home, the SCERTS Model provides families and professionals with the tools and support they need to build on a child’s abilities and emerging concepts and skills.

As I reviewed the articles in this issue, I was impressed by the authors’ expertise and genuine respect for children with ASD and their families. Developed by a team, the SCERTS Model thrives on the teamwork, shared control, and strengths of the child with ASD, his/her family, and professionals. In this way, the SCERTS Model is a dynamic demonstration of respect-in-practice; a research-based foundation that never loses its footing as it is translated into strategies, activities, and support. To put it another way, SCERTS is sincere – the thoughts behind it match the words used to share it with others, which in turn match how it looks and feels to children with ASD and those working on their behalf. Like a solid foundation to a house, this is a framework that comfortably builds meaning, logic, and predictability into daily interaction for all parties. Thus, within the walls of the SCERTS Model there is an opportunity for learning and the establishment of social and emotional connections.

Recently, I went to see The Emperor’s Club. A phrase in the movie captured my attention: the beginning determines the end. Historically, the field of autism has known numerous beginnings; a series of methodologies among which only a few have stood the tough test of time and practice. We’ve known many beginnings that ultimately unravel into loose and disappointing endings. It is intriguing, though, to consider what we might do if we had one great beginning. Where would we invest the saved time and resources? What new concepts, strategies, and details could be developed within a “building” designed for the long haul? The better the foundation, the easier it is to install electrical wiring, hang wallpaper, or install carpet; and the more fun it is to arrange furniture, hang pictures, and live and grow there. Imagine the possibilities… “You mean we can stay here this time? We don’t have to pack up and move again?”

That being said, it’s important to understand that the SCERTS Model is not the house; it’s the blueprint. After all, people live and grow most effectively among their own choice of colors, furniture, and activities; and they digest and translate new concepts in light of their own values, beliefs, talents, skills and experiences. To those of us working on behalf of children with ASD, SCERTS is a flexible, focused, and carefully tailored beginning that may eliminate the need for subsequent starts.

Welcome to the winter 2002 issue of the Jenison Autism Journal.
THE SCERTS MODEL:
Enhancing Communication and Socioemotional Abilities of Children with Autism Spectrum Disorder

"The SCERTS Model is thorough, tailored, and focused on the core deficits in ASD. It raises the bar, creating a workable and effective standard. It's exciting to see sound research and theory translated into a practical framework for intervention." – Carol Gray

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The SCERTS Model in Action:

Pictured above are (left to right), Danny, Jeffrey (both running) and Patrick (jumping on the trampoline), as they participate in a social skills group.

WHAT IS THE SCERTS MODEL?
The SCERTS Model is a comprehensive, multidisciplinary approach to enhancing communication and socioemotional abilities of young children with Autism Spectrum Disorders (ASD). The acronym “SCERTS” refers to Social Communication (SC), Emotional Regulation (ER) and Transactional Support (TS), which we believe are the primary developmental dimensions to be prioritized in a program designed to support the development of children with ASD and their families. In the SCERTS Model, it is recognized that the most meaningful learning experiences in childhood occur in everyday activities within the family and school contexts. Therefore, efforts to support a child’s development should occur with a variety of partners (e.g., parents, other caregivers, brothers and sisters and other children) in everyday routines in a variety of social situations,
and not primarily by working with children or "training skills" outside of these natural and more motivating contexts.

The SCERTS framework has been designed to target priority goals in social communication (SC) and emotional regulation (ER) by implementing transactional supports (TS) throughout a child’s daily activities and across social partners. By supporting a child’s development in social communication and emotional regulation, with the strategic implementation of transactional supports, there is great potential for meaningful developmental progress for a child and his or her family in daily activities. The SCERTS Model is best implemented as a multidisciplinary approach that respects and infuses expertise from a variety of disciplines, including regular and special education, speech-language pathology, occupational therapy, psychology, and social work. An effective program for a child with ASD based on the SCERTS Model requires the expertise of a team of professionals working in a carefully coordinated manner and in a collaborative partnership with parents and family members.

In this article, we will provide an overview of the philosophical foundations, values and guiding principles, and core components of the SCERTS Model, and discuss what the SCERTS Model is and is not. We will conclude by demonstrating how the model has been implemented for a young child with ASD. In our efforts to share the Model with professionals and families, we are currently writing a practical, comprehensive manual to help guide the efforts of educators, clinicians and families in supporting the development of children with ASD, from early intervention through the early school years. The SCERTS Model is designed to have broad application, and thus be applied in educational, clinical settings and in everyday activities at home and in the community. For ease of communication, we will use the term “educational” throughout this discussion to refer to all efforts to support the development of children with ASD, with the understanding that such efforts are not limited to educational settings, nor solely to educators as facilitators of positive change.

CORE COMPONENTS OF THE SCERTS MODEL

The core components of the SCERTS Model are Social Communication, Emotional Regulation and Transactional Support.

Social Communication

*If all my possessions were taken from me with one exception, I would choose to keep the power of communication, for by it, I would soon regain all the rest.*

- Daniel Webster

*You can't not communicate. Everything you say and do or don't say and don't do sends a message to others.*

- John Woods

The social communication component of the SCERTS Model addresses the over-riding goals of helping a child to be an increasingly competent and confident communicator, and active participant and partner in social activities. This includes communicating and playing with others in everyday activities and deriving joy and pleasure in social relationships with children and adults. In addressing this goal, we believe children must acquire capacities in two major areas of social-communicative functioning: joint attention abilities and symbolic behavior. These two foundations of social communication underlie functional abilities in a variety of ways. First, with increasing capacities in joint attention, children become more able to share attention, share emotions, as well as express intentions with social partners in reciprocal interactions. Next, with increasing capacities in symbolic behavior, children develop more sophisticated and abstract means to communicate and play with others. One aspect of symbolic behavior is the means that children use to communicate or “how” children communicate, also referred to as communicative means.
Communicative means may be preverbal (primarily presymbolic) such as use of gestures or use of objects to communicate, or verbal (primarily symbolic), including signs, picture symbol systems and/or speech ranging in sophistication from single word utterances to complex expressive language used in conversation. Although the ultimate goal is to help youngsters develop and use effective and efficient means to communicate symbolically in one primary modality, multi-modal communication is valued and targeted in the SCERTS Model. Children are more effective communicators when they have a variety of strategies, so that if one strategy does not work (e.g., speech), a child may shift to another (e.g., pictures or gestures). In fact, a high level of communicative competence is defined, in part, by the degree of flexibility a child has available in the means used to communicate, including the ability to coordinate various means such as words and gestures, or pictures and vocalizations, rather than having to rely on only one way to communicate.

Capacities in joint attention enable children to attend and respond to the social overtures of others and, ultimately, to become a partner in the complex “dance” of reciprocal social communication. At more advanced levels of ability, the capacity for joint attention supports true social conversation by fostering a child’s awareness of a social partner’s attentional focus, knowledge, and preferences. This capacity supports the ability to share experiences about past and future events, to maintain relevance to the topic being discussed, to provide sufficient background information, and to consider a listener’s perspective and interest. We also believe that children are more competent communicators when they are able to communicate for a variety of purposes or functions in everyday activities, such as expressing needs, sharing observations and experiences, expressing emotions and engaging others in social interactions. Children who communicate for a limited range of functions (e.g., primarily for requesting and labeling), are less socially engaging and less desirable social partners. Unfortunately, some “speech-training” programs for children with ASD tend to focus on such a narrow range of functions.

With increasing abilities in social communication, a child is better able to participate with shared attention in emotionally satisfying social interactions, which are the foundation for developing relationships with children and caregivers. Research and clinical experience have demonstrated that with increased social communication abilities, behavioral difficulties may be prevented or lessened. Put simply, if a child has socially acceptable nonverbal or verbal means to make choices, to protest, and to get attention, there is less of a need to express strong emotions or attempt to exert social control through socially unacceptable means.

Social communication and language abilities also are essential for learning in educational settings and everyday activities, and have broad-ranging effects on a child’s social and cognitive understanding of daily experiences and growing sense of competence and self-esteem. The great majority of opportunities for learning in childhood is mediated through symbolic activities such as language use and pretend play, as well as through nonverbal communication; therefore, the more competent a child is in language and communication abilities and symbolic play, the more opportunities that child will have for benefiting from learning experiences.

The ultimate goal of the SC component of the SCERTS Model is to support children in developing the foundational abilities in joint attention and symbolic behavior that support communicative and social competence, and emotional well-being. With these abilities, a child is more likely to find satisfaction and even great joy in being with, relating to, and learning from family members. Other children and caregivers thereby further increase motivation to socialize and seek out learning opportunities. Table 1 provides some examples of generic goals for children in social communication organized in three general developmental stages – Intentional Communication (Social Partner Stage), Emerging and Early Language Levels (Language Partner Stage), and Conversational Levels of ability (Conversational Partner Stage).
Table 1. SCERTS Model: Examples of Social Communication Goals*
(* actual goals will vary depending on child’s needs and family priorities)

Intentional Communication Level (Social Partner Stage)

<table>
<thead>
<tr>
<th>Goals for Joint Attention and Reciprocity</th>
<th>Goals for Symbol Use</th>
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<tbody>
<tr>
<td>- Establish shared attention (e.g., orienting to social stimuli including speech, social referencing through gaze shifting, gaze/point following).</td>
<td>- Establish use of contact gestures to express intent (e.g., pulling another’s hand to an object, giving an object, pushing away an object, showing an object).</td>
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<tr>
<td>- Establish shared affect (e.g., smiling and looking).</td>
<td>- Establish general use of vocalizations directed to others to express intentions and emotional states.</td>
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<td>- Establish early intentional behaviors for the function of behavioral regulation (i.e., to have needs met, such as requesting or protesting by coordinating gestures and vocalizations with physical contact or gaze).</td>
<td>- Establish repertoire of conventional, distal gestures (e.g., reaching, raising arms, waving, pointing, clapping, shaking and nodding head).</td>
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<tr>
<td>- Increase frequency or rate of communicative initiations.</td>
<td>- Replace undesirable communicative means (e.g., aggression, tantrum, or self-injury) with socially acceptable forms.</td>
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<tr>
<td>- Develop the use of communication for social interaction functions (i.e., to draw attention to self such as pulling hand to request a tickle, reaching to request comfort, waving to greet).</td>
<td>- Establish repertoire of varied vowels and consonant + vowel combinations used as part of communicative acts.</td>
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<tr>
<td>- Develop the use of communication for joint attention functions (i.e., to draw attention to objects or events of interest such as showing an object to comment, clapping after building a tower of blocks, pointing to label).</td>
<td>- Develop the coordination of gestural and vocal means (e.g., a conventional gesture plus a vocalization).</td>
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<tr>
<td>- Develop strategies to persist and repair communicative breakdowns by repeating or modifying message.</td>
<td>- Establish functional use of familiar objects directed toward self (e.g., feed self food with spoon).</td>
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<tr>
<td>- Develop ability to communicate intentions across familiar persons, environments, and activities.</td>
<td>- Expand repertoire of communicative means to build repair strategies.</td>
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<td>- Establish comprehension and anticipation of familiar routines based on situational and nonverbal cues and visual supports, including language embedded in such routines (action, object terms, person names).</td>
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Table (cont)
<table>
<thead>
<tr>
<th>Goals for Joint Attention and Reciprocity</th>
<th>Goals for Symbol Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Expand ability to communicate intent across more varied persons, environments, and activities.</td>
<td>• Establish quasi-symbolic and symbolic means of communication (spoken words, signs, and/or picture symbols/photos).</td>
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<tr>
<td>• Expand ability to coordinate attention and affect through shifting gaze and shared affect.</td>
<td>• Establish ability to produce intelligible or unambiguous communicative acts (e.g., spoken word, sign, point to picture).</td>
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<tr>
<td>• Develop ability to secure attention to oneself prior to expressing intentions (e.g., verbal calling).</td>
<td>• Establish conventional use of familiar objects directed toward self in play (e.g., feed self with spoon without food).</td>
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<tr>
<td>• Continue to expand range of communicative functions to include more social purposes (e.g., greeting, showing off, commenting).</td>
<td>• Acquire core single word vocabulary that is decontextualized and expresses early semantic functions (e.g., objects, actions, location, nonexistence, recurrence, rejection).</td>
</tr>
<tr>
<td>• Establish ability to coordinate shared attention, affect and intention to share experiences.</td>
<td>• Expand vocabulary to express a variety of semantic relations (e.g., agent, action, attribute, possession, location, emotion) to describe states, qualities, and relations of objects and events.</td>
</tr>
<tr>
<td>• Increase reciprocity in speaker and listener roles (i.e., turn-taking and contingent use of language) to share experiences.</td>
<td>• Establish conventional use of familiar objects directed toward others in play (e.g., feed doll).</td>
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<tr>
<td>• Establish ability to ask questions to seek new information about things of interest (e.g., “What’s that?”).</td>
<td>• Establish use of novel word combinations (or signs/pictures) to express semantic relationships (e.g., action + object, attribute + object, agent + action).</td>
</tr>
<tr>
<td>• Establish use of pronouns to correspond with speaker/listener (I/you) roles.</td>
<td>• Establish planned logical sequences of actions in play (e.g., prepare food; feed stuffed animal).</td>
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<tr>
<td>• Develop strategies to persist and repair communicative breakdowns by repeating or modifying message, requesting clarification.</td>
<td>• Establish more conventional use of repetition to express intentions, with eventual segmentation of gestalt forms, moving to creative utterances.</td>
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<td></td>
<td>• Establish use of grammatical morphemes (e.g., prepositions, plurals, tense markers) and simple sentence constructions (i.e., negatives, declaratives, imperatives, and interrogatives).</td>
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<tr>
<td></td>
<td>• Expand representational play themes that involve make-believe roles with realistic or miniature toys.</td>
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<td></td>
<td>• Develop emergent literacy skills.</td>
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Table (cont)
Goals for Joint Attention and Reciprocity

- Knowledge of communicative events, and use of "scripts" specific to particular events.
- Increase ability to share experiences by introducing topics about past and future events providing sufficient information for the listener.
- Use of nonverbal and paralinguistic behavior to support social interactions (e.g., body posture and orientation, eye contact, prosody, vocal volume).
- Acquisition of nonverbal conventions for initiating, exchanging turns, and terminating interactions.
- Facilitate awareness of another’s intentions, preferences, and experiences (Theory of Mind).
- Develop ability to maintain and or modify topic selections based on a listener’s attentional focus, prior knowledge, preferences, and emotional state.
- Use of language to negotiate and resolve differences of opinion or conflicts.
- Increase understanding of social rules and conventions in different situations (rules of games, social requirements of different events, classroom rules).
- Use of language to express feelings and empathy.
- Expand strategies to persist and repair communicative breakdowns by repeating or modifying message, stating lack of knowledge ("I don’t know"), asking for more information, requesting clarification.

Goals for Symbol Use

- Acquire higher level grammatical forms that express differences in meaning (e.g., subordinate clauses and conjunctions).
- Acquisition and use of verbal conventions for initiating, exchanging turns, and terminating interactions (opening conversations, etc.).
- Increase ability to interpret and use language flexibly depending upon the social context and the nonverbal cues of one’s communicative partner (e.g., drawing inferences, multiple meaning words, politeness, nonliteral language, and sarcasm).
- Increase ability to use language over multiple turns and in more complex discourse (e.g., telling and understanding stories, sharing information about multiple events that occur over time).
- Acquire ability to use language as a tool for emotional regulation:
  a) develop vocabulary to express emotions and share experiences with others;
  b) use language to prepare for changes in routine;
  c) discuss potentially problematic emotionally dysregulating situations; and
  d) use language to request assistance and comfort.
- Use of reading and writing skills for intrapersonal and interpersonal communicative functions.
- Increase ability to engage in sociodramatic play and higher level social play.

(adapted from Prizant, Wetherby, Rubin & Laurent, in press; Prizant, Wetherby, Rubin, Laurent & Rydell, in progress)
Emotional Regulation

Our emotions decide what is worth paying attention to... emotions are constantly regulating what we experience as reality.

- Candace Pert (1997)

In order for children to have the maximum capacity to learn, they have to be able to manage their emotions.

- Daniel Goleman

Emotional regulatory capacities enable a child to be organized and focused, to problem solve, to communicate, to maintain social engagement, and to be "available" for learning.

- Prizant, Wetherby, Rubin and Laurent (2001)

The Emotional Regulation component of the SCERTS Model focuses on supporting a child’s ability to regulate emotional arousal. Emotional regulation is an essential and core underlying capacity that supports a child’s “availability” for learning. A child is most available for learning when he/she is better able to:

1) attend to and maintain focus on the most relevant information in an activity or setting;
2) process verbal and nonverbal information;
3) remain socially engaged with others;
4) initiate interactions using higher level abilities including language;
5) respond to others in reciprocal interaction; and
6) actively participate in everyday activities.

For a child to be optimally “available”, he/she must have the emotional regulatory capacities and skills:

1) to independently remain organized in the face of potentially stressful events which may be either positive or negative in nature (referred to as self-regulation),
2) to seek assistance and/or respond to others’ attempts to provide support for emotional regulation when faced with stressful, overly stimulating or emotionally dysregulating circumstances (referred to as mutual regulation),
3) to “recover” from states of emotional dysregulation or “attentional shutdown”, through self and/or mutual regulation strategies (referred to as recovery from dysregulation).

Enhancing capacities for emotional regulation goes hand-in-hand with helping a child to more effectively maintain “optimal arousal”, so that the child is not experiencing predominant patterns of arousal of being too “high” or too “low” with regards to the social and physical environment, or fluctuating too frequently between such extreme states of arousal. Children who experience such fluctuations and extremes, especially frequent “too high” states, are often at the mercy of overwhelming reactions such as anxiety, fear, distress, or even dysregulating positive emotional states of elation and giddiness. Such children may appear to be hyperreactive, hypervigilant or always “on guard”. Children who are often too “high” may also withdraw or “shut down” as an attempt to cope with disorganizing or overly stimulating experiences. In contrast, children who have a bias towards being in a low state of arousal often have difficulty attending to the salient features of their environment and sustaining attention for social interactions and educational activities. These children may appear unmotivated, passive, disengaged, and inattentive.

Many factors may be the source of dysregulation: cognitive, physical, sensory, motor, interpersonal or social. Cognitive factors may include language processing difficulties, memories of negative emotional experience associated with an activity or place, violations of expectations, or an extreme need to have events occur in a particular sequence or manner. Physical factors may include health status such as effects of allergies, gastrointestinal problems, and so forth. Sensory factors may include a hyper reactive response bias to sensory input, which may include auditory, visual, tactile or olfactory stimuli. Motor factors may include motor coordination and motor planning difficulties impeding goal directed behavior, and resulting in frustration. Interpersonal factors may include
Pictured above: This arousal meter was drawn by eleven-year-old Justin, who used his own interpretations of “too low” (i.e., Daffy Duck engaged in the monotonous and repetitive task of making French fries), “just right” (i.e., Daffy flying an airplane), and “too high” (i.e., Daffy being chased by Bugs Bunny with a cleaver) to identify his current state of emotional arousal, subsequently self-identifying socially appropriate coping strategies for maintaining his availability for learning and social engagement. The unique qualities of this tool illustrate the individualized nature of transactional supports for emotional regulation. Tools that are meaningful and motivating for a specific child will likely be the most effective. For more of Justin’s art, go to www.justinart.com.

Partners who do not read or who misread a child’s signals of dysregulation, and who, therefore, are not able to respond in a supportive manner. Social factors may include social activities and social environments that are confusing and anxiety arousing.

Therefore, the ultimate goal of the ER component of the SCERTS Model is to support a child in adapting to and coping with the inevitable and uniquely individual daily challenges he/she will face in maintaining optimal states of arousal most conducive to learning, relating to others, and experiencing positive emotions. Table 2 provides some examples of generic goals for children in emotional regulation organized in reference to self- and mutual regulation goals, at two different levels: Sensory Motor (presymbolic) and Cognitive-Linguistic (symbolic).
Table 2. SCERTS Model: Examples of Emotional Regulation Goals*
(* actual goals will vary depending on child’s needs and family priorities)

<table>
<thead>
<tr>
<th>Goals for Self Regulation</th>
<th>Goals for Mutual Regulation</th>
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<tbody>
<tr>
<td><strong>Sensory-motor/Prelinguistic Level Goals</strong></td>
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</tr>
<tr>
<td>- Increase child’s ability to acquire and use socially acceptable sensory-motor strategies to support engagement and attention in daily activities.</td>
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</table>
- Increase child’s ability to maintain engagement and attention to activities by responding to behavioral signs of dysregulation (e.g., decrease the amount of environmental stimulation when a child exhibits “fright and flight” reactions; increase the amount/intensity of stimulation imbedded in activities when a child appears hypo-responsive to the environment). |
| - For a child who is typically in a low state of arousal, expand his/her repertoire of alerting strategies - jumping, movement-based song routines, etc.; for a child who is typically in a high state of arousal, expand his/her repertoire of calming strategies - holding favorite object, rhythmic motion, movement activities. |  
- Increase child’s ability to use socially acceptable gestures for social control functions requesting and protesting (e.g., head nod, head shake, push away, point, etc.). |
| - Expand the child’s use of sensory-motor strategies to support transitions within daily routines (e.g., use of transition objects, imbed organizing sensory-motor supports within transition activities). |  
- Develop strategies through non-speech transactional supports to assist the child with expression of arousal and emotional state (e.g., visual supports). |
| **Cognitive/Linguistic Level Goals** | **Cognitive/Linguistic Level Goals** |
| - Increase the child’s ability to acquire and utilize cognitive-linguistic strategies to support his/her attention to activities and daily routines (e.g., through the use of rehearsal and self-regulatory language, by reference to visual supports). |  
- Increase the child’s acquisition of vocabulary to be able to request assistance and organizing supports when he/she experiences dysregulating events (e.g., requesting “help”, a break from an activity). |
| - Expand the child’s use of cognitive-linguistic strategies to support independent transitions throughout daily routines (e.g., introduce picture/written word schedules to symbolize activity sequence and transitions, increase the child’s awareness of temporal concepts, etc.). |  
- Increase the child’s ability to use specific vocabulary to express emotional state and arousal level. |
|  | - Increase ability to identify and express emotional state and arousal level, as well as use regulating strategies with and without the use of visual supports (e.g., emotion meters). |
|  | - Increase social understanding and social expectations through language-based strategies such as Social Stories. |
Transactional Support

In order to feel real, we all need to be recognized and affirmed. We need to be accepted and appreciated. Most of all, we need to be seen with loving eyes, and reflected back with warmth and enthusiasm... as much as we need oxygen and food.

Stephen Cope (1999)

Transactional support is the third and final core component of the SCERTS Model. Since most meaningful learning occurs within the social context of everyday activities and within trusting relationships, transactional support needs to be infused across activities and social partners. Transactional supports include the following:

1) **Interpersonal supports** - These include the adjustments made by communicative partners in language use, emotional expression and interactive style that are effective in helping a child with ASD process language, participate in social interaction, experience social activities as emotionally satisfying, and maintain well-regulated states. Interpersonal support also includes peer support, which provides a child with positive experiences with children who are responsive partners and who provide good language, social, and play models, leading to the development of positive relationships and friendships.

2) **Learning and educational supports** - These include environmental arrangement, or the ways typical settings and activities are set up or modified to foster social communication and emotional regulation; visual supports for social communication and emotional regulation, which may be implemented in educational settings as well as in everyday activities, and curriculum modifications and adaptations to support success in learning.

3) **Support to families** - This includes educational support such as the sharing of helpful information and resources, or direct instruction in facilitating a child’s social communication, emotional regulation, daily living skills, and implementing learning supports. When appropriate, emotional support to family members also is provided to enhance skills for coping and adaptation to the challenges of raising a child with ASD.

4) **Support among professionals and other service providers** – This includes informal and planned opportunities for enhancing educational and therapeutic skills, and for providing emotional support, whenever necessary, to cope with the challenges of working with children with ASD, and to prevent “burn-out”.

In summary, the ultimate goals of the TS component of the SCERTS Model are to coordinate efforts among all partners in using interpersonal supports most conducive to social communication and emotional regulation, to provide learning experiences with other children leading to the development of meaningful peer relationships, and to provide the necessary learning and educational supports. Additionally, families must be supported with educational resources and emotional support. Professionals and other service providers need to be supported through professional growth opportunities, as well as opportunities to support each other emotionally.

In the SCERTS Model it is recognized that, when professionals and other caregivers begin to work with a child with ASD and with each other, they enter into complex, dynamic and transactional relationships with the child, parents, and other caregivers and service providers. Important qualities of all these relationships that must be nurtured include trust, respect, and empowerment for the child and family to be competent and independent. Furthermore, these relationships must change and evolve over time, as children grow and develop, and as parents become more knowledgeable about ASD, more confident in supporting their child’s development, and more clear about their priorities for both the child and the family. As parents and family needs change, professionals must be flexible, responsive, and respectful of family decisions. Table 3 provides some examples of transactional support goals for children, their families and for professionals.
Table 3. SCERTS Model - Examples of Transactional Support Goals*
*(actual goals will vary depending on child’s needs and family priorities)

I. Interpersonal Support

A. Identify specific features of communicative partners’ interactive styles and language use that either support, or are barriers to successful interactions (e.g., expression of emotion, language complexity and style, vocal volume, rate, physical proximity, physical contact, use of visual supports). An optimal style is one that: a) provides enough structure to support a child’s attentional focus, situational understanding, emotional regulation, and positive emotional experience, and b) fosters initiation, spontaneity, flexibility and self-determination.

B. Coordinate efforts across different partners in developing strategies to increase those specific features that support more successful interaction, and modify those that are barriers.

C. Design and implement learning experiences with peers so that the child with ASD may benefit optimally from good language, social and play models. Design motivating activities, organize supportive environments, and incorporate visual supports. Teach both typical children and children with ASD specific strategies for success in daily interactions.

II. Learning and Educational Supports

A. Design and implement visual and organizational supports to:

1. Expand and enhance the development of a child’s expressive communication system, either as a primary modality or as an augmentative system that is one part of a child’s multi-modal communication system;
2. Support a child’s understanding of language as well as nonverbal behavior;
3. Support a child’s sense of organization, activity structure and understanding of time; and
4. Support the development and use of cognitive-linguistic emotional regulatory strategies.
5. Adapt and/or modify curriculum goals that are primarily language-based to enable the child to succeed to the extent possible.

B. Design living and learning environments to support social communication and emotional regulation (physical structure, level of auditory and visual stimulation, etc.).

III. Family Support (i.e., support to parents, siblings, extended family members)

A. Provide families with educational support including information, knowledge and skills to understand the nature of their child’s disability and to support their child’s development. Support must be based on family priorities, and offered through a variety of options such as educational activities (e.g., lectures, discussion groups), direct training of skills, observation of educational programming, and interactive guidance and modeling in natural activities.

B. Provide emotional support in one-to-one and group settings to: (a) enhance family members’ abilities to cope with the stresses and challenges of raising a child with ASD; and (b) help parents to identify their priorities, and develop appropriate expectations and realistic, achievable goals for their child’s development and for family life.

Table (cont)
IV. Support among professionals and other service providers

A. Provide informal and planned opportunities for enhancing educational and therapeutic skills through mentoring arrangements, sufficient planning time, regular staff in-service trainings, and by attending conferences.

B. Provide informal and planned opportunities for emotional support, whenever necessary, to cope with the challenges of working with children with ASD, and to preclude “burn-out”. This may include retreats, support meetings, daily “sharing” opportunities.

(adapted from Prizant, Wetherby, Rubin & Laurent, in press; Prizant, Wetherby, Rubin, Rydell, & Laurent, in progress)

The Whole is Greater than the Sum of the Parts

Although we have just discussed SC, ER and TS as separate entities, they are by no means mutually exclusive in theory, in how children develop, or in educational practice. Unlike the typical separation of developmental domains in an IEP, one of the unique characteristics of the SCERTS Model is recognition of and respect for interdependencies among various aspects of development in children. Here are but a few brief examples we have observed repeatedly in youngsters we have known:

1) Increased abilities in social communication prevent or lessen behavioral difficulties. This occurs because social communicative abilities allow children to seek assistance from others (e.g., requesting help), to express emotions (e.g., communicating anger or fear) and to have social control in socially acceptable ways (e.g., choosing activities). Thus, by communicating in these ways, a child’s emotional regulation is supported.

2) When communicative partners sensitively adjust levels of language and social stimulation (interpersonal transactional support), or use visual supports in daily activities (educational transactional support), a child’s ability to process and respond to language (social communication) and to stay engaged in a social activity with focused attention (emotional regulation) is enhanced.

3) If a student is given opportunities to engage in organizing or regulating movement activities (emotional regulation), and is provided with a visual schedule (transactional support) to clarify the transition from a school bus to the classroom in the morning, the student is more likely to be able to participate successfully in social classroom activities (social communication) rather than needing more “settle-in” time.

Why Focus on SC, ER and TS?

One may ask, “What is the justification for focusing on these particular areas, or any other areas of development for children with ASD?” This is a reasonable and important question to consider. In fact, there have been ongoing debates for many decades about what is most important to teach, and what are the most effective methodologies for teaching children with ASD. Such differences of opinion are reflected in a myriad of different educational approaches currently available, and have been passionately debated in published literature and at conferences. For example, some approaches consider eye contact, matching, imitation, and compliance to directions as the essential “readiness skills” that must be the focus of educational efforts. Such skills are typically taught in an adult-directed, highly structured, repetitive drill-like teaching format, especially in early stages of programming. Other approaches emphasize reciprocal social engagement as the primary goal, while yet others strive to teach children to work independently following a sequence of visual, organizational supports, with less attention paid to social
acquisition of functional abilities in meaningful activities, all of which are fully consistent with the priorities of the SCERTS Model.

The SCERTS Model reflects our conviction that by prioritizing social communication, emotional regulation and transactional support, educators, parents and clinicians are better able to have a positive impact on a child's development and quality of life. We believe that the focus on these components of the SCERTS Model is best supported by research on core challenges, as well as priorities and concerns identified by parents, persons with ASD who have written about and speak about their challenges, and experts in the field. We also believe that these capacities are essential for children to succeed academically, and to support optimal learning of functional skills, such as self-help and adaptive living skills. Furthermore, available research and our years of clinical experience indicate that abilities in social communication, emotional regulation with implementation of transactional supports are likely the primary factors that are very closely related to the most positive outcomes in children.

Another important consideration is that SC, ER and TS are life-span abilities. Our initial work on the SCERTS Model has focused primarily on children in the preschool and primary school years. However, professionals and parents to whom we consult, or who have recently attended seminars on the SCERTS Model, have provided feedback that it is not a model just for children, but that it is a “life-span” model, and it is relevant for persons from childhood through adulthood. Certainly, this contention would need to be validated by successful application of the SCERTS Model with older individuals. However, the applicability of the Model across a broad range of ages seems logical when we consider that abilities in social communication, emotional regulation, and transactional support are factors that enhance human development and quality of life for persons of all ages. To bring this point home, we need only to reflect on each of our own lives and our daily experiences, and the considerable influence that capacities in SC, ER and TS have on a daily basis on our emotional well being and quality of life.

communication. Implicit in focusing on any of these priorities is the belief that the skills being worked on will have the greatest positive impact on the lives of children.

It is noteworthy, however, that following a recent review of two decades of research on educational interventions for children with autism, an expert panel appointed by the National Academy of Sciences (NRC, 2001) concluded that there is no evidence that any one approach is more effective than other approaches. Furthermore, in studies that report long-term outcomes using different approaches (e.g., ABA and Floor-time), only about half the children have very positive outcomes regardless of the approach. Most importantly, the panel argued for the introduction of new dynamic approaches based on a number of educational priorities. The priorities include functional spontaneous communication, development of social relationships and play skills with peers, and
Enhancing capacities in SC and ER are also priorities for families. Research on major concerns expressed by families about their children appears to be closely related to issues of social communication and emotional regulation. Bristol and Schopler (1984) interviewed hundreds of parents to explore the family experience of raising a child with ASD. They found that parents reported that in the preschool and school years, a number of specific difficulties related to their child’s disability were the source of greatest concern and caused the greatest stress on the family. These included the child’s lack of effective communication, problems in developing relationships with family members and a lack of response to family members, behavior management problems and embarrassment in public due to their child’s behavior. All of these difficulties can be directly attributed to limitations in social communication and emotional regulation. Additionally, our many years of experience in consulting to and working directly with children with ASD have validated the primacy of challenges in social communication and emotional regulation, and the need for ongoing transactional supports when working with children with ASD and their families. In our routine consultations for schools and families, as well as in “crisis” situations, the problems that are invariably raised are related to a youngster’s difficulties in communicating basic needs, exerting social control in socially acceptable ways, and in staying well-regulated and intentionally focused in the face of overly stimulating, frustrating and stressful circumstances. Such difficulties negatively impact caregivers’ relationships with a child, their ability to support the child’s emotional regulation and to provide effective and emotionally satisfying learning experiences.

In summary, we believe multiple sources of information support the need for an educational model that focuses on social communication and emotional regulation, with the strategic implementation of transactional supports. We also believe that the development of a child’s competence and confidence in communicating and in developing positive relationships is best supported in everyday social activities with caring and responsive partners who are able to enhance a youngster’s capacities for social communication and emotional regulation. Furthermore, the very process of enhancing social communication abilities and supporting emotional regulation is an essential part of “connecting” with a child, leading to long-term, trusting relationships. Establishing such relationships, in turn, may prevent behavioral difficulties, passivity and/or despondency for children, inevitable outcomes of chronic frustration, anxiety and/or a lack of trust and limited success in social interaction.

What the SCERTS Model “Is and Is Not”

In order to better clarify where the SCERTS Model “stands” relative to other available models, we will briefly consider its essential characteristics.

The SCERTS Model is a value-based model - Unlike many other models or approaches used with children with ASD, the SCERTS Model is grounded in explicitly stated core values and principles that guide educational efforts. It is our belief that without such core values and guiding principles, there is the risk of teaching skills to a child that may be thought of as important (based on the bias of the developers of a program or approach), when in reality, such skills have a minimal impact on a child’s quality of life and independence. Furthermore, we believe that it is essential that an educational approach be respectful of a child and family. By explicitly stating the values and guiding principles underlying implementation of the SCERTS Model, we can ensure that when applying this model, practices will be focused on the most functional and meaningful goals for a child, and will be respectful of children and families. Table 4 presents the SCERTS Model Statement of Core Values and Guiding Principles.

The SCERTS Model is not a curriculum focused solely on training skills. The model focuses on underlying capacities as well as supporting the development of functional skills, individualized for each child - The SCERTS Model is focused on directly addressing the core developmental challenges faced by children with ASD as identified in the research literature (i.e., social
Table 4. SCERTS Model Statement of Core Values and Guiding Principles

1. The development of spontaneous, functional communication abilities and emotional regulatory capacities are of the highest priority in educational and treatment efforts.

2. Principles and research on child development frame assessment and educational efforts. Goals and activities are developmentally appropriate and functional, relative to a child’s adaptive abilities and the necessary skills for maximizing enjoyment, success and independence in daily experiences.

3. All domains of a child’s development (e.g., communicative, socioemotional, cognitive, and motor) are interrelated and interdependent. Assessment and educational efforts must address these relationships.

4. All behavior is viewed as purposeful. Functions of behavior may include communication, emotional regulation and engagement in adaptive skills. For children who display unconventional or problem behaviors, there is an emphasis on determining the function of the behavior and supporting the development of more appropriate ways to accomplish those functions.

5. A child’s unique learning profile of strengths and weaknesses plays a critical role in determining appropriate accommodations for facilitating competence in the domains of social-communication and emotional regulation.

6. Natural routines across home, school, and community environments provide the educational and treatment contexts for learning, and for the development of positive relationships. Progress is measured in reference to increasing competence and active participation in daily experiences and routines.

7. It is the primary responsibility of professionals to establish positive relationships with children and with family members. All children and family members are treated with dignity and respect.

8. Family members are considered experts about their child. Assessment and educational efforts are viewed as collaborative processes with family members, and principles of family-centered practice are advocated to build consensus with the family and enhance the collaborative process.

communication and emotional regulation). It is not a sequence of skills or content to teach. Clearly stated and defined goals, and guidelines and activities for enhancing abilities in the areas of social communication, emotional regulation and transactional support are essential components of model, however, many other abilities that will support children with ASD (preacademic skills, academic skills, self-help skills) may be targeted within the model as well. However, because the priority is to support children in social communication and emotional regulation as the foundations for learning and relating, the Model focuses both on these underlying capacities as well as supporting the development of functional skills. Therefore, the model clearly is compatible with other flexible, semi-structured approaches in which the primary goals are to develop educational, self-help and independent living skills.

The SCERTS Model is not a prescription. It is systematic and semi-structured, but flexible - Some educational approaches for children with ASD are highly prescriptive. That is, they are characterized by teaching practices that follow a specific sequence of teaching steps, with little room
for variation, flexibility or spontaneity on the part of the instructor or the child. Some approaches may also involve adherence to a “lock-step” sequence of goals in particular skill areas, with training on readiness or prerequisite skills necessary before working on other abilities believed to be more sophisticated or advanced. In many cases, such approaches may rely heavily on “adult-directed instruction” also referred to as “directive teaching approaches”, with the focus being on teaching children compliance to requests, and “correct responses”. Consistent with this focus, progress typically is assessed primarily in terms of percentage of correct responses in predetermined teaching programs. The justification for highly structured directive approaches is that very young children with ASD, or those with less abilities who may be older, are not able to learn in less structured settings or without a high degree of repetitive practice. In such approaches, children may not have opportunities to benefit from learning with and from other children, due to the belief that children with ASD are not able to learn in social settings due to the nature of their disability, and therefore require primarily 1:1 tutorial instruction.

There is no doubt that the high degree of structure in prescriptive programs has the clear “benefit” of providing clear expectations and a highly predictable format. However, it is our experience that an over-reliance on prescriptive teaching practices perpetuates social and cognitive inflexibility, which is such a challenge for many children with ASD who are predisposed to interacting, learning and behaving in inflexible ways due to their learning style and the very nature of their disability.

In contrast to an over-reliance on prescriptive teaching, other approaches base their goals and teaching practices primarily on following a child’s preferences and motivations, and accepting a child’s behavioral responses through imitation or positive emotional reactions. For these approaches, which have been referred to as “facilitative” or “follow the child’s lead approaches”, the goals tend to be more focused on building social relationships and trust, rather than providing direct instruction in specific social-communicative, cognitive or self-help skills. We agree that by acknowledging a child’s focus of attention, motivations and interests, and by interacting with a high degree of social and emotional responsiveness, we are more likely to support positive emotional experience, and build relationships more conducive to a learning partnership. However, we also believe that children with ASD benefit from some degree of structure in activities and daily experiences (i.e., consistency and predictability) to entice and motivate communication and social engagement. It also is a well-known fact that consistency and predictability support emotional regulation for all children, including those with ASD. Furthermore, by infusing learning opportunities in motivating meaningful activities that are functional in everyday routines, skills can be targeted and acquired in a more flexible manner.

Thus, in contrast to either prescriptive or facilitative approaches, the SCERTS Model attempts to work in the “middle-ground” in that it is systematic and semi-structured, but flexible, with a hierarchy of goals in social communication and emotional regulation informed by research on child development and based on each child’s needs and family priorities. Activities are designed to be consistent and predictable, with an overriding priority on social communication, social and emotional reciprocity and creative problem solving fostered in the context of meaningful activities, shared enjoyable experience and shared control. Shared control involves two or more partners having opportunities for turn-taking and choice-making, with the ultimate goal of each partner developing the capacity to follow the other partner’s agenda. In this manner, the model is flexible and responsive, allowing partners to capitalize on a child’s motivation, spontaneous communication and “teachable moments”.

Furthermore, a basic tenet of the SCERTS Model is that to work effectively with children, it is always necessary to take into account a child’s level of emotional arousal and regulation, and therefore, the child’s “availability” to learn and participate in social exchange. Structure, consistency and predictability provide the framework and support for learning; however, a
child’s self-determination and the ability to adapt and grow emotionally is enhanced by flexibility within structure, opportunities for children to have social control through communication and choice making, and opportunities to solve problems in a variety of activities. We believe children with ASD of all ages and ability levels can benefit from this kind of approach, although developmentally younger children and children who are less able to regulate emotionally and to organize themselves in achieving goals may initially benefit from a greater degree of consistency and predictability, and external support. In this manner, the Model is flexible enough to be responsive to individual differences in children, with activities designed to provide varying degrees of interpersonal or educational supports, depending on a child’s abilities and needs in different activities.

The SCERTS Model is not exclusionary of other practices or approaches. It is flexible enough to incorporate practices from available approaches and teaching strategies - Many positive practices coming from a myriad of approaches have been developed over the past two decades for children with ASD. However, with particular approaches, it is not permissible to make modifications or changes in prescribed teaching practices. For example, very specific instructions may need to be followed on how learning environments are structured, how “stimuli” used for teaching should be presented, how much time should be given for a child to respond, and how teachers may (or may not) respond to a child’s behavior. Thus, some approaches resemble “closed systems”, rather than drawing from a range of effective practices that may be integrated flexibly based on a child’s needs and learning style. The SCERTS Model is flexible enough to incorporate practices from a variety of approaches and innovative teaching strategies (e.g., augmentative communication, organizational supports, sensory supports, relaxation techniques and Social Stories (Gray, 1994). However, only those that support social communication and emotional regulation, and that are philosophically consistent with the core values and guiding principles of the Model (see Table 4) are considered compatible with practice in the SCERTS Model.

Why another model for supporting the development of children with ASD?

Other reasonable questions might be, “Why another model for supporting the development of children with ASD? Is there enough confusion for both families and professionals with all that is available?” The SCERTS Model was developed to address a number of needs, based on the authors’ training in a broad range of approaches, our intimate working knowledge of the research as well as strengths and weaknesses of different approaches, and our years of experience consulting to both families and programs utilizing a range of approaches. The model is designed to directly fill a void based on what we perceive as the major gaps in current service provision, and in some cases, the philosophical and practical fragmentation underlying practices used with children with ASD and their families. Furthermore, as noted earlier, an expert panel on “educational interventions” for children with ASD (NRC, 2001) indicated that there is a clear need for the development and testing of new and innovative educational models for children with ASD based on their findings of a number of limitations of currently available models. Therefore, the SCERTS Model has been developed as a “next generation” model for working with children with ASD to address the acknowledged limitations of available models.

We are excited about the SCERTS Model as a vehicle for helping to move education of children with ASD forward in a more comprehensive and meaningful manner. We are currently planning research to demonstrate efficacy of the Model in a variety of settings. To illustrate how the SCERTS Model may be applied in “real-life” circumstances, the following article, Kyle’s Story explores how one younger with ASD has benefited from this approach. We also encourage you to read the article by Joanne Quinn, The SCERTS Model: Our Family’s Experience, as she shares how the SCERTS Model has been implemented for her son Patrick.
REFERENCES


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Schedule of Spring, 2003
SCERTS Model Seminars
Presented by
Childhood Communication Seminars

Two Day Seminars

- **New Orleans, LA** January 16-17, 2003 Barry M. Prizant, Ph.D., CCC-SLP
  Early Bird Deadline 1/2/03. Seminar will be at the Pan American Life Conference Center.

- **North Charleston, SC** February 27-28, 2003 Barry M. Prizant, Ph.D., CCC-SLP
  Early Bird Deadline 2/13/03 Sheraton North Charleston, 4770 Goer Drive, North Charleston.

- **Fort Lauderdale, FL** March 31-April 1, 2003 Barry M. Prizant, Ph.D., CCC-SLP
  Early Bird Deadline 3/17/03. The Westin Ft. Lauderdale, 400 Corporate Drive, Ft. Lauderdale, FL 33334

- **Chicago, IL** April 28-29, 2003 Barry M. Prizant, Ph.D., CCC-SLP
  Early Bird Deadline 4/12/03. Donald E. Stephens Convention Center, 9301 W. Bryn Mawr, Rosemont, IL

Presentations


Registration: 7:30am Seminar Hours: 8:30am-3:30pm. Lunch on your own.
For more information contact: Janet Balletto, PO Box 9247, Warwick, RI 02889
Phone/FAX: 401-732-6335 Email: janetballetto@cox.net Register online: www.SCERTS.com
INTRODUCING KYLE

Kyle is an active 23-month-old boy. He enjoys playing with toy cars, doing puzzles and running outside. Recently, Kyle’s parents began to feel that his development was delayed and very different from his older sister’s. Kyle’s parents consulted their pediatrician, who made a referral to the local hospital’s pediatric multidisciplinary evaluation team. The team concluded that Kyle’s behavioral profile met the criteria for Autism Spectrum Disorder (ASD). His family was referred to the local early intervention service provider for speech-language therapy, occupational therapy, and educational services. What follows is a description of Kyle’s initial treatment planning session with his early intervention providers.

Kyle’s parents and his four year old sister Katie were present during the early intervention service providers’ initial visit to their home. The team included an occupational therapist, speech-language pathologist, and early childhood educator. Kyle did not notice the service providers when they entered the play room, and continued to play with his toy trains, repetitively sending each car through a tunnel. His mother indicated that this was typical of Kyle’s behavior, and that he “never says ‘Hi’ to anyone. Kyle’s mother tried to gain his attention. In response to the disruption, Kyle screamed, flailed his arms, and attempted to hit his mother. To help Kyle calm, his father introduced familiar gross motor games (e.g., “Ring around the Rosy” and a jumping activity). This was both organizing and motivating for Kyle, and was effective in helping to regulate his emotional state. Kyle used more concrete and early developing gestures to request continuation of these activities, taking his father by the hand and reaching for his father to request to be picked up. On one occasion, Kyle looked at his father as he reached for his hand, one of only a few instances when he used communicative gaze during the visit. Similar concrete, unconventional gestures were observed during other highly motivating song and movement routines, but were not seen during sedentary play with preferred puzzles and manipulative toys. His parents excitedly shared that these interactive strategies had emerged only in the past 3 weeks. They also noted that he had excellent attention when he was involved in doing puzzles, a favorite activity; however, he did not like it when his sister or his parents tried to take turns doing puzzles with him.

His mother remarked that for the most part, Kyle responded to communicative overtures of others, primarily during daily routines such as eating or motor play, and that his rate of spontaneous and intentional interaction was low. During this visit, Kyle had difficulty communicating for the purpose of
sharing his observations by bringing others’ attention to what he was interested in. He enjoyed looking at books, but he did not attempt to share the books with his family members or therapists by “showing” them or shifting his visual attention from the book to his caregiver. It was also observed that Kyle oriented to speech directed to him on an inconsistent basis. His parents questioned whether Kyle knew his name or if he heard their voices, as he rarely turned to look at them when they addressed him.

In general, Kyle was observed to have a very high activity level and quickly moved from one activity to another, except when he became absorbed in doing puzzles or playing with trains which appeared to help him stay focused and organized. He appeared to be easily overwhelmed by his environment and often had difficulty sustaining his attention during social routines and manipulative toy play when others attempted to participate in his play. This was particularly evident when the activity level or conversational volume in the playroom increased. Kyle also was very wary of approaches by Katie and tended to abandon toys he was playing with, moving away from her when she approached him. This was confusing and upsetting to her as she thought he did not want to play with her. He consistently engaged in several activities when he became upset or overwhelmed such as: walking away, visually focusing on objects he held in his hands, and mouthing objects. These activities appeared to help him self-soothe. His parents commented that he also was beginning to squeeze himself between the cushions of the couch when he became increasingly upset. Likewise, his mother reported that Kyle was seeking her out more frequently as a source of comfort by pressing his body tightly against hers, but without looking at her.

Following the home visit, an initial SCERTS Model treatment plan was formulated with his parents based upon the initial assessment of Kyle’s strengths and needs, information provided by his parents, and his parents’ primary concerns.

**PRESENT LEVEL OF PERFORMANCE: SOCIAL COMMUNICATION (SYMBOL USE)**

Kyle is just beginning to demonstrate the skills of an emerging intentional communicator. He primarily uses early developing gestures such as physical manipulation of others or reaching to request preferred sensory-motor routines and comfort. He is not yet demonstrating the use of vocalizations directed toward others or the use of conventional gestures (that is, easily understood gestures that have “shared” meanings within social interactions such as waving, giving, pointing) for the purposes of greeting or showing, nor is he utilizing other symbols such as words or pictures to communicate for requesting and/or protesting.

**Recommended Individualized Family Service Plan (IFSP) Objectives:**

**Goal Area - Social Communication (Symbol Use)**

Sample IFSP benchmarks for Kyle included:

**Objective 1:** Kyle will initiate or request continuation of preferred social routines using conventional gestures (e.g., a give gesture, a reach, and a contact point) paired with gaze to established shared attention across a minimum of three activities, settings, and/or social partners.

**Objective 2:** Kyle will greet familiar caregivers and family members with a wave gesture in appropriate contexts (i.e., arrivals and departures) across a minimum of three activities, settings, and/or social partners.

**Objective 3:** Kyle will initiate a conventional communicative signal (e.g., a push away or a headshake “no”) to reject an undesirable activity across a minimum of three activities, settings, and/or social partners.

**Objective 4:** Kyle will demonstrate anticipation and increased understanding of an upcoming activity when shown picture symbols or objects associated with an activity across a minimum of three activities, settings, and/or social partners.
Recommended Transactional Supports: Goal Area – Social Communication (Symbol Use)

1. Interpersonal support modifications  Kyle responds best to affectively charged social routines that incorporate elements of movement and rhythm. Therefore, this type of interaction style and these types of routines are recommended to help foster Kyle’s development of more sophisticated means of communication. Next, it is recommended that Kyle be provided with ample time to respond and repair his bids for communication. Visual modeling of gestures and physical guidance should be incorporated across a range of social partners (e.g., parents, his sister, and his peers), especially in motivating activities such as movement activities and play with puzzles and trains. Lastly, provision of opportunities to practice his use of conventional gestures and symbolic language across familiar contexts and social partners is recommended.

2. Environmental support modifications  Reducing extraneous environmental stimuli is recommended due to Kyle’s bias towards a high state of arousal, i.e., being “too high” in relation to the expectations for a given social context. Providing clear visual structure is also recommended in order to support Kyle’s awareness of the social conventions of a given activity (e.g., where specific games are typically played).

3. Learning supports / Visual cues  Providing clear visual cues and structure for developmentally appropriate activities is recommended. This may be best accomplished by introducing tasks and structuring interactions in a way that promote requests by using “Communicative Temptations” (Wetherby and Prizant, 1989) such as placing objects out of his reach or in clear containers that he can not open. Also, activities should be used which have a predictable beginning and end point (i.e., close ended tasks), pairing picture symbols or objects associated with activities to help promote Kyle’s symbolic understanding of the language forms associated with each context, (e.g., scavenger hunts using a visual map of those items that are needed to complete the activity).

PRESENT LEVEL OF PERFORMANCE: SOCIAL COMMUNICATION (JOINT ATTENTION)

While Kyle has an emerging interest in his family members as evidenced by his tendency to respond to the communicative overtures of others, he is not yet independently attempting to share his attention, affect, intentions, or experiences with them by coordinating gestures (e.g., showing and pointing) with communicative gaze. He is communicating primarily to have immediate needs met (i.e., communicating for behavioral regulation by requesting and protesting) with an emerging ability to communicate for social interaction by requesting continuation of social routines in highly familiar sensory-motor games. He is not yet communicating for the purpose of joint attention (i.e., sharing observations and experiences). His overall rate of communication is very low, directing communicative acts to others about once every three minutes in familiar activities. He is not yet imitating others’ actions or vocalizations in a reciprocal manner.

Recommended IFSP Objectives: Goal Area - Social Communication (Joint Attention)

Objective 1:  Kyle will increase the frequency of his spontaneous communicative acts for behavioral regulation and social interaction functions through coordinating gestures (give or push-away gestures) and vocalizations with physical contact or gaze greater than 3 times within a given activity across a minimum of three activities, settings, and/or social partners.

Objective 2:  Kyle will increase the frequency of his spontaneous communicative acts for joint attention by using a show gesture to gain another’s attention upon the discovery of a novel item or picture in a book across a minimum of three activities, settings, and/or social partners.

Objective 3:  Kyle will shift his gaze from an activity that he has completed to another in order to reference their attention and to gain their praise across a minimum of three activities, settings, and/or social partners.
Objective 4: Kyle will share positive emotion by looking at others with smiles or laughs in familiar routines across a minimum of three activities, settings, and/or social partners.

Objective 5: Kyle will respond by taking his turn in movement and simple turn-taking activities with his sister and other partners by imitating others' actions across a minimum of three activities, settings, and/or social partners.

Recommended Transactional Supports: Goal Area - Social Communication (Joint Attention)

1. Interpersonal modifications To increase rate of communication, provide frequent opportunities for Kyle to make choices of toys, and snacks. Begin to “sabotage” or create obstacles during his most motivating play activities such as trains and puzzles in order to facilitate communicative use of protest and requesting gestures and vocalizations. Facilitate Kyle’s use of show gestures and gaze shifting using tactile cues and communicative style adjustments such as exaggerated affect, and provide Kyle with ample time to initiate sharing without the use of verbal cues. Respond in a highly responsive and affectively engaging manner by providing preferred and organizing supports such as hugs and clapping when Kyle initiates a showing gesture.

2. Environmental modifications Develop modifications to Kyle’s home setting and family community outings in collaboration with his parents to establish opportunities in his natural environment to promote commenting (joint attention communication). This might include placing preferred toys in unexpected locations and establishing routines that involve the introduction of novel and interesting items (e.g., “surprise can” activities).

3. Learning supports / Visual cues Introduce activities that incorporate an element of surprise or novelty (e.g., placing preferred character figurines in a container of puzzle pieces), as these activities clearly support Kyle’s availability for learning and his social engagement. Other strategies may include modeling, pointing and commenting within book reading routines (using books that capture Kyle’s individual interests), and embedding opportunities to show and comment in preferred movement activities.

PRESENT LEVEL OF PERFORMANCE: EMOTIONAL REGULATION (MUTUAL REGULATION)

Kyle is currently able to use early developing gestures and interactive strategies to seek out supports from his parents, particularly at moderate levels of arousal when he gradually was becoming upset. His use of gestures is not yet consistent and Kyle’s family members often must read and respond to the more subtle and idiosyncratic behavioral cues that are representative of dysregulation in order to help him to maintain an active and alert state. However, when he escalates quickly to extreme levels of dysregulation, he does not seek support consistently. He responds best at these times to mutual regulation strategies that involve movement and deep pressure (e.g., hugs).

Recommended IFSP Objectives: Goal Area - Emotional Regulation (Mutual Regulation)

Sample IFSP benchmarks included:

Objective 1: Kyle’s caregivers will prepare Kyle for impending transitions by incorporating pictures, objects and rhythmic verbal cues to signal transition to new locations, across a minimum of three activities, settings, and social partners.

Objective 2: Kyle will consistently initiate requests for comfort by moving in close proximity to his parents, and reaching for them when experiencing an emotional arousal state that is either “too high” or
“too low” in dysregulating social contexts (impending transitions) across a minimum of three activities, settings, and/or social partners.

Objective 3: When highly dysregulated, Kyle will respond to others attempts to help him regulate emotional arousal by “recovering” to a more regulated state within 2 minutes across a minimum of three activities, settings, and social partners.

Recommended Transactional Supports: Goal Area - Emotional Regulation (Mutual Regulation)

1. Interpersonal modifications Kyle’s level of arousal and emotional state should be consistently monitored by all of his social partners (e.g., caregivers, clinicians, etc.). Awareness of the subtle cues that Kyle uses when he is becoming overwhelmed and/or frustrated is essential for helping him to learn to express these emotions in more conventional ways and to request assistance. When Kyle is in a low state of arousal, i.e., “too low” in relation to a given social context, the use of an affectively charged interaction style is recommended. When he is upset or “too high” for a given social context, a more soothing style is recommended and deep pressure is often effective. It is always recommended to modify one’s rate and sophistication of communication to allow for Kyle to process verbal and nonverbal information more effectively. Lastly, modeling and facilitation of appropriate bids for comfort is also recommended. Responding to all of Kyle’s attempts to signal his arousal and emotional state will facilitate Kyle’s understanding of himself as an effective communicator, a factor that can foster self-esteem and social-emotional growth.

2. Environmental modifications Environmental arrangements, such as decreasing the presence of extraneous auditory, visual, and tactile stimulation in Kyle’s environments is recommended. This is particularly critical when he is engaged in tasks that challenge his current developmental levels. Provision of ample opportunities for engagement in motor games (e.g., ring around the rosy, blanket swinging, jumping, etc) is recommended, particularly following more sedentary activities such as play with trains, puzzles, etc. Lastly, since Kyle has developed a differential attachment to his parents, modifying his daily routines to allow close proximity to a familiar caregiver (e.g., within same room) is recommended when feasible.

3. Learning supports / Visual cues The use of simple visual supports (e.g., a photograph or representational object) is recommended to foster Kyle’s comprehension of impending transitions. Next, transactional supports that foster Kyle’s ability to maintain his availability for learning and social engagement should be available across the activities within his daily routines. He may request these supports from a range of social partners and across contexts (e.g., a blanket for swinging, a “bounce pad” for jumping, and socially appropriate items for mouthing, which has been a soothing support for Kyle in the past).

PRESENT LEVEL OF PERFORMANCE – EMOTIONAL REGULATION (SELF REGULATION)

Kyle demonstrates a highly variable level of arousal. He primarily uses sensory-motor activities to help himself regain an organized state when he becomes either over or under aroused. Although he primarily uses his visual and oral tactile senses to help him self-regulate, other senses such as movement have proved to be regulating for him as well.

Recommended IFSP Objectives: Goal Area - Emotional Regulation (Self Regulation)

Objective 1: Kyle will seek out his sippy cup (which provides oral sensory input) to secure a drink when he is upset across a minimum of three activities, settings, and/or social partners.
Objective 2: Kyle will initiate “taking a break” using an “all done” gesture and will move to an organizing activity or location such as selecting a puzzle or moving to a couch when he is overwhelmed by his environment across a minimum of three activities, settings, and/or social partners.

Objective 3: Kyle will improve his ability to independently recover from dysregulation by rejoining activities more quickly after disengaging across a minimum of three activities, settings, and/or social partners.

Recommended Transactional Supports: Goal Area - Emotional Regulation (Self Regulation)

1. Interpersonal modifications  The use of strategies similar to those discussed for mutual regulation will help to support Kyle’s self-regulation development, as will guiding him to engage in activities with regulating properties when his arousal is either “too high” or “too low.” These modifications might include a social partner initiating alerting activities such as a jumping game when he is in a low state of arousal or introducing familiar and predictable calming activities when he is in a high state of arousal.

2. Environmental modifications  It will be important to ensure availability of “tools” that Kyle uses for regulation (e.g., his drinking cup, preferred books, musical toys, and a quiet “get away” spot) throughout his daily environments (e.g., in his house, the babysitters, playgroup, etc).

3. Learning supports / Visual cues – Introduction of objects, simple pictures and/or photographs to help Kyle understand and anticipate upcoming activities and transitions is recommended (e.g., transition objects, photo schedule boards, etc.)

Recommended Transactional Supports: Family Support

The SCERTS Model recognizes that children are a part of a family system. A diagnosis of ASD has implications for the entire family. Often, family members feel overwhelmed and devastated. This was the case for Kyle’s family. The team created a plan for emotional and educational support. Emotional support focused on enhancing his parents’ abilities for coping and adaptation by listening to their concerns, hopes and fears, and emphasizing the potential for progress. Educational support focused on facilitating Kyle’s abilities in the areas of social communication and emotional regulation, with the development and implementation of transactional supports.

Specifically, Kyle’s parents were provided with information about a local family support center and the names of parents of young children with ASD who had agreed to speak with other parents. They were invited to attend parent support groups, and provided with information about sibling support play groups. These groups provide families with comfortable places to share their challenges and concerns, and to promote their ability to cope with and adapt to the changes occurring in their daily lives. Kyle’s parents were encouraged to take advantage of these opportunities when they felt ready and motivated to do so.

Ongoing educational support was provided as part of home-based visits during, as well as before and after direct treatment sessions which always included one or both of his parents. Team members actively strived to establish positive and supportive relationships with Kyle’s parents and created frequent opportunities for them to express their confusion, joys and frustrations. Discussions at initial sessions focused on collaboratively developing and prioritizing goals for Kyle, and providing the family with information, knowledge and skills to understand the nature of Kyle’s disability and to support his development. Discussions also involved detailed consideration of Transactional Supports including interpersonal and environmental modifications, and use of learning supports such as visual supports. They were also taught to identify even the subtlest positive changes in social communication and emotional regulation so that they could monitor Kyle’s progress.
Due to parental concerns and the urgency of addressing his flailing and hitting, an early priority included preventative emotional regulation strategies so that Kyle did not reach his most extreme states of dysregulation. Another priority was to develop strategies for involving his sister in fun activities, while supporting her understanding of why Kyle had difficulties playing with others, and what she could do to help “teach him to play.” As sessions progressed, his parents played an increasingly greater role in identifying daily activities and contexts where they requested support in enhancing social communication, emotional regulatory capacities, and self-help skills.

THE MUTUAL INTERDEPENDENCE OF GOALS IN KYLE’S TREATMENT PLAN

Kyle’s treatment plan was formulated by identifying “SC,” “ER” and “TS” as separate entities with implementation of transactional supports to foster his development in each of these domains. However, it is evident that there are strong interdependencies in goals among domains including how transactional supports for “SC” and “ER” potentially have broad ranging effects across these developmental domains. As Kyle’s abilities in social communication improve, modifications will likely be made in both the “SC” and “ER” domains, as social communicative abilities allow children to seek assistance from others (e.g., requesting help), to express emotions (e.g., communicating anger or fear) and to have social control in socially acceptable ways (e.g., choosing activities). Thus, by communicating in these ways, a child’s emotional regulation is supported. As previously discussed, in the SCERTS Model, the “whole is greater than the sum of the parts.”

General Programming Recommendations

Based on Kyle’s needs as well as the recent provisions set forth by the National Research Council (2001), the SCERTS Model recognizes the importance of providing intensive transactional supports for Kyle and his family. Intensive service provision is one of the most basic tenets of recommended practice when determining an appropriate therapeutic program for children with Autism Spectrum Disorders. Thus, Kyle’s early intervention program following the SCERTS Model incorporates the following elements:

1. Intensive service provision (typically defined as 20 to 25 hours per week for his age group) consisting of natural, developmentally appropriate, and functional activities;
2. Provision of activities designed to foster functional, spontaneous communication, social-emotional development, and play skills focusing on appropriate use of toys and play with peers;
3. Provision of supports across social contexts (e.g., home, playgroups, and community outings);
4. Family training and emotional support, and
5. Service provision by highly specialized educators and/or therapists who have experience with young children with ASD.

The SCERTS Model recognizes that the most appropriate programmatic components will include infusion of supports within Kyle’s currently established daily routines rather than the implementation of a pre-determined protocol of activities. Those activities that will be the most meaningful for Kyle are likely to be already in place (e.g., bathing, grooming, feeding, playing with his sister, going to the playground, etc.). By carefully monitoring Kyle’s engagement in these activities, partners can modify their communicative style (e.g., the sophistication of our language models and the degree of affect that we use) and can make environmental arrangements (e.g., simplifying the environment by reducing visual and auditory distraction and providing learning tools such as multi-modal communication supports). In addition to these modifications, opportunities for intensive speech-language-communication intervention, occupational therapy, and social interaction with same-aged peers (e.g., a parent-toddler play group or structured play dates supported by his EI providers) should be provided. These services will be provided by professionals, paraprofessionals and family members as deemed appropriate for Kyle.
The SCERTS Model: Our Family’s Experience

Joanne Quinn
Director of the Rhode Island Autism Project

The following article was contributed by Joanne Quinn, mother of Patrick, a second grade student with autism spectrum disorder (ASD). Joanne also serves as the first parent director of the Autism Project of Rhode Island, a nonprofit organization working to support the creation of a comprehensive system of care for children with ASD, their parents, home-based workers and educational teams. Joanne has graciously agreed to share her thoughts and feelings about how the SCERTS Model has contributed to her son’s ongoing progress and success. In Joanne’s discussion, she provides many examples of the impact of the SCERTS Model on Patrick’s education, and how his program has focused on social communication, and emotional regulation with the implementation of a variety of transactional supports. For example, Patrick’s program for enhancing social communication and language skills occurs in everyday settings in meaningful and motivating activities. Naturally motivated communicative gaze and expression of emotion are social communicative goals embedded in these activities, rather than being taught as isolated skills.

Supporting emotional regulation is a huge part of Patrick’s program, and Joanne clearly understands the importance of Patrick being well-regulated and “available” for learning. The development of self- and mutual regulatory skills at sensorimotor and cognitive levels is targeted throughout his day. Finally, transactional supports are essential programmatic components as well. Interpersonal supports include many opportunities for playing with peers at school, as well as playing with and being supported by his brothers at home. Educational supports help him to understand his schedule, identify and express emotions, and develop an understanding of how to participate appropriately in social situations. Finally, direct support to his family are core components of his program including the development and implementation of strategies focused on social communication and emotional regulation in everyday activities, and encouraging participation of all family members following the priorities set by his family. Her story also illustrates how the SCERTS Model is a multidisciplinary model that can be used to complement other educational approaches and strategies. - Barry Prizant

IN THE BEGINNING...

I had always considered myself an expert on autism. After all, I’m very close to my 41 year-old cousin who was diagnosed with autism at age four. He is six days older than I am, and we grew up together. I understood him. In 1994, when my son came home from first grade with a letter from a mom informing the class about her seven year old son with Asperger’s Syndrome, I knew what she was talking about. Then, how did my son’s diagnosis come as a shock to me?

The answer is found within the disability of autism, or autism spectrum disorders as it presents today. It would be very difficult to find two children with the same diagnosis who face the exact same challenges. The range of the disorder
continues to expand, but so too do the options of interventions available to assist the children and their families. This is the story of my family's journey to understand my son's disability, to become educated about the available interventions for him, and the development of and continual recreation of his educational and therapeutic programming. As you will see, the SCERTS Model has come to play an important role in developing an appropriate program for my son.

When I think back to the time prior to my son Patrick's diagnosis of autism, I am confident that we could not have diagnosed him earlier because the little boy I saw did not present the classic characteristics of autism as I understood them. Patrick was so different. He had language, loved hugs, and had friends. At least I thought he did. Then I got the phone call from his preschool. Patrick was having a hard time, especially on the playground. He would run up and tackle his brother Danny and Danny's friends. He couldn't maintain a basic conversation or answer a question. Patrick would run away from circle time or "shut down" completely during group activities and stare out the window.

We brought Patrick to the Children's Hospital at a local University Medical Center in Providence, Rhode Island, for a full evaluation. My initial thought was ADHD. After a day of waiting, testing and running down hallways after Patrick I was convinced that this was his problem. Then we all met in a small room with our team coordinator, the school psychologist from our district, my husband John and me. By this time Patrick was out of control and bouncing around the room. He began to draw on John's face with a green marker. As I worked to redirect him, I stopped as John said "Okay buddy, color my face while we listen." It was the only option we had to get through the next 15 minutes. Patrick colored John's face green as we learned the team concluded that a "provisional" diagnosis of Autism was appropriate. WHAT! "We're putting Autism down so he'll receive the services he needs." WHAT!

Patrick continued to color John's face as we sat and were introduced to an array of services he would need. Services? What are they? Intensive Speech-language therapy... (Did they not hear him speak nonstop all day? Okay, so it was only about things he wanted to talk about). Occupational Therapy... (Job training already? Why does he need to work on an occupation? He's only four. Have they given up hope on him so soon?) Special Education... (Did he not recite his ABCs to them at least 40 times today? Was no one impressed with his ability to recite an entire Barney movie? Is it a problem that he runs out of the room the minute someone asks him who, what, when, where, why or how questions?) "We don't recommend Patrick for an ABA program at this time." (What's ABA?) "We'd like to see him again in a year. Have a nice day." Our heads were spinning.

John and I drove home in silence. My parents were babysitting. All I said was don't tell mom and dad, they'll be heartbroken. They are very close with my cousin. We did tell my parents. They told us they had seen signs. The school staff saw some signs. So had John. How did I miss it? Why didn't I pick up on the red flags? Two babies in 14 months and a move to Rhode Island contributed, but in hindsight I think his language, or what I thought to be language, masked many of the red flags.

Patrick was diagnosed on May 18, 1999, the day following his fourth birthday. This is the age group, 3 to 6 year olds, that I now call the "Black Hole Children." The children are too old for Early Intervention and too young for primary grade school. Many districts offer limited options for appropriate programming for preschool children with ASD. Parents find themselves forced into the role of primary caregiver and coordinator of services for their child with little or no guidance on what to do or where to go for help.

**GETTING STARTED**

I spent hours on the phone calling about programs and services that I didn't understand and didn't seem relevant to Patrick's needs. I immersed myself in research to see what programming was available. How frustrating to determine that not much had changed since the mid 1960s when my cousin was diagnosed. At least no one called me a "Refrigerator Mom".
We enrolled Patrick in a camp for 3 hours a day, four days a week for the summer with a one-to-one aide. He received speech at the camp and I later got him OT services at an outpatient facility. He was then registered to attend his preschool 5 days a week with a one-to-one aide, with speech, OT and special education provided at the school. We were still full supporters of the Least Restrictive Environment for Patrick. He needs to be with his friends all day we thought. He’ll learn from them. A special education preschool? What, was this, the 1960s? Didn't anyone hear of full inclusion? We had much to learn about our son, autism, and his different learning style.

School began and Patrick did okay, getting home at 11:30 a.m. and usually falling asleep at 11:00 p.m. following a long, full day of walking in circles, videos, non-stop drawing on his Magna Doodle and several chases through grocery stores, school parking lots, waiting rooms and baseball fields. He received some OT at a clinic and my friend invited him to join a speech group she had helped to organize for her son and another little girl with a speech-language pathologist named Emily Rubin, a colleague of Barry Prizant. This was our first introduction to elements of the SCERTS Model, initially within the context of a speech-language group.

However, the first few weeks of group I would wonder why aren't the children at a table learning speech? This is an expensive playgroup for a child who already talks. Well, stick it out, I told myself. I don't want to insult anyone. He is enjoying it. Little did I realize that my education on appropriate interventions for children with ASD had just begun.

It was during this time, about 3 months after his diagnosis, when I began to see the autism in Patrick more clearly. He suddenly spoke in third person only, referring to himself as Patrick rather than using the correct pronoun. His impulsiveness increased and safety became our primary concern. He really didn’t look at my face! Are these the “behaviors” I read about? I panicked. I read more books and attended training at the University of North Carolina/Division TEACCH. It was after reading Catherine Maurice's Let Me Hear Your Voice on the plane home I questioned if we were doing enough. What were these 40 hours all about and should we consider an ABA/discrete trial approach for Patrick?

DEVELOPING A PROGRAM

I called Emily and Kat Felkner, Patrick's OT, from the airport on my trip home from NC and asked for help. Patrick was on two waiting lists for home-based ABA services that I didn't even understand he needed (the state would not authorize any other services at that time). However, one agency never returned my call after I submitted the paperwork, and the other used the term “behavior” so many times with a negative tone that I felt very uncomfortable. (I loathe the use of the word “behavior” as it relates to kids with autism. It's got such a negative spin. I prefer "reactions" or something that takes the blame off of them). The first 3 months following his diagnosis were the scariest for me, because I thought I was seeing him regressing rapidly, but it really was the first time I could put a name to it.

Luckily for us, Emily and Kat returned my calls and we agreed to work together to create a "wrap around" program for Patrick that would follow him through his day and across venues, with a focus on social communication, emotional regulation with a variety of supports put into place for Patrick. My charge was to find a home-based worker and Kat and Emily joined forces to design Patrick's curriculum. Around the same time I attended Dr. Barry Prizant's annual Rhode Island conference and listened to his discussion on gestalt learners and the importance of delayed echolalia in the development of language. The concepts of gestalt learning and gestalt language emphasize that children with ASD rely heavily on rote learning, which can be readily seen in their use of echolalia and in their general learning style. He was describing Patrick to a tee. In my own back yard! How lucky we were! I hired Patrick’s first one-to-one, Melissa DiSciuillo, to be his "Social Coach" for about 20 hours each week after school. Emily and Kat developed the curriculum, educated Melissa and me and then we followed through week after week with the exercises and activities. Based on Emily’s recommendation, Barry did a home-based assessment with further recommendations for developing Patrick’s
program. I soon learned that everything that was planned for Patrick had a specific purpose, with abilities and specific skills being targeted, especially in the areas of social communication and emotional regulation.

**Social Communication** - One of my first big lessons was that Patrick spoke many words and scripts, but only understood and "owned" a few of them. He didn't need to be at the table learning to talk as the primary way to improve social communication and language skills. He needed to be in everyday settings and activities learning to use appropriate self-generated communication skills and language. I soon came to learn that this was a central element of the SCERTS Model, in that all activities are designed to support social communication and emotional regulation in natural activities based on the demands of those settings.

To this end, we completed many activities including his favorite game "Scavenger Hunt" with his Pooh characters over and over again. "Where is Pooh? Pooh is under the table. Piglet is behind the book." Every obstacle course we did included big stop signs and questions at each section. "What did you do? I climbed the stairs." This game taught Patrick the meaning of stop signs and the need to respond to them. It also provided him with intensive practice in answering those tough "Wh" questions and using correct verb tenses at each stop in meaningful and motivating activities.

In the beginning, learning supports such as sentence strips were used in the activities. They served many purposes: they helped him with word recall, they were teaching him sentence structure and more complex language and also, each time he handed the strip to Melissa or me he would look in our direction. This exercise resulted in quick improvement in his use of naturally motivated eye contact or communicative gaze when in conversation.

As our knowledge of autism and Patrick's learning style increased, we decided a school day with integration built into it as a complement to a self-contained classroom was the appropriate model of education for Patrick. It remains our goal to continue to increase the amount of time he's integrated into a typical classroom, but only with the necessary supports for successful participation with his peers, and not at the expense of losing valuable teaching time. We don't want him to just "do fine" or only "hold it together" during his integration time. Patrick must be learning and participating actively and in an appropriate manner with independence for us to consider integration a success. Placing Patrick in a self-contained classroom setting was a very difficult decision for us, but once we were able to see a happy boy working independently and learning, we understood this to be the correct placement.

**Emotional Regulation** - In addition to fostering social communication skills, we focus a great deal of energy on Patrick's sensory and Emotional Regulation needs. One of my greatest lessons learned is to make sure Patrick is comfortable, well-regulated and open to learning before I start anything with him. If he's not, I might as well bang my head against a brick wall! How true! We spend time working with his OT to maintain a strong "sensory diet" and to help teach Patrick to regulate himself. In the beginning, I thought it would always be adult driven. I never imagined Pat would be coming up to me regularly to say "Mom, I need three more minutes of jumping before I do my homework!" Our 6-foot round trampoline is the best investment to date! In the winter, Patrick brings out a broom and gets some initial heavy work by pushing off the snow. Then he jumps, and jumps and jumps!

Physical and environmental organization and visual supports remain important elements of Patrick's day. We rely on written check lists more as his reading skills improve, slowly fading the use of picture schedules, which have proven so valuable for him in supporting emotional regulation. Schedules continue to organize him and to provide the information he needs to transition between activities and events.

Emotional Regulation continues to be an important area of development for Patrick. This is increasing now that he is older, understands more and is in more complex social situations. His "Emotion Books" range from the basic level of identifying basic emotions: happy, sad, mad,
angry, and sick, to the current book that we use to teach him the different levels of emotion and appropriate responses. For example, his favorite color is blue. He wanted a blue plate for dinner and I gave him a green one. He was very upset and couldn't calm down to eat. After spending some time to help him calm, I pulled out his book. He identified he was mad because he couldn't have a blue plate. On the scale from 1 to 10 in his book he rated his reaction a 3. I reviewed some of his behavior with him and showed how his reaction was really closer to an 8 or 9. More importantly, a more appropriate reaction would indeed be a 2 or 3 and then we reviewed and role played more appropriate reactions so next time he would have one in his memory to refer to.

We are also working on more complicated emotions such as frustrated, bored and confused. Visuals continue to be important supports for Patrick. We use a volume meter to help him with vocal volume to illustrate *Too Soft – Just Right – Too Loud*. The visual support coupled with our reaction lets him know when he's appropriate and when he's not. Helping Patrick to understand appropriate social behavior in everyday activities will continue to be an important part of his program.

**Family Involvement** - One of Patrick's program's greatest strengths is the active participation of family members in his program, and the importance placed on our family's priorities in making decisions about his program. John and I agreed that we would talk openly to his brothers and all family members and friends. The day of his diagnosis we sat with his two brothers and explained what we learned and what we understood autism to mean. We also discussed that while Patrick wouldn't be allowed to "get away with things" he would be disciplined differently than them and no more yelling at Patrick. We all agreed it didn't work anyway, and now we understood why. His brother Danny commented, "I told you mom, just use small sentences. Watch. Pat, stop. Come to me. See mom!" Already so wise at five.

We also involved the boys when Emily, Kat and Amy Laurent, OT, came to the house. Danny worked hard in his role of "typical peer" each week in speech group and at Summer Social Skills Camp. Kat quickly taught the boys how to "play" with Patrick to teach him and to help him respond. A house with three boys is prime for wrestling. My oldest, Mike, is now an expert in therapeutic wrestling and makes a mean "hot dog" with a beanbag chair and a little brother in need of some deep pressure! Both boys also speak like well-schooled therapists, clearly understanding Patrick's needs.

The constant flow of therapists in our home and a mother with her nose in a book, on the Internet or at a meeting created much stress for an already exhausted family. Inclusion of all of us in Patrick's program through education, observation and training helped to ease the stress and improve
the understanding of the reasoning and goals behind what sometimes presented as total chaos for many days. Hearing his brothers cheer and call for me when he finally pedaled his bike, or sat appropriately for an entire baseball game so we could all attend and cheer for the team are big rewards in our house.

WHERE WE ARE GOING

Patrick remains a child who learns in a gestalt style, and achieves best results in a smaller, highly structured setting. Now in second grade, he attends a public school where he spends the morning through lunch in his Primary Autism Room and the afternoon in a typical second grade class. The educational approach in the Primary Autism Room programming is based on the principles of Structured Teaching with a strong team approach integrated into the day so language and social communication skills, emotional regulation and sensory diet goals are addressed throughout the day, across disciplines and across settings. It is a demonstration classroom created and supported by The Autism Project of Rhode Island to make a working model available to teachers throughout our state. The goal remains to show best practices to professionals who in turn replicate the programming in their public school classrooms.

Using strategies taught to us from the SCERTS Model, Structured Teaching, and sensory integration help all of us to help Patrick learn and successfully participate in our family and community. Most importantly, the understanding we’ve gained about how Patrick sees the world and the support he needs to process information and learn helped to diminish our frustrations and panic. We see Patrick as a person with a unique insight into our world and as someone with so much to offer.

Next steps include more advanced language mapping and event description exercises. Transactional supports such as Social Stories and Comic Strip Conversations (from the work of Carol Gray) remain important tools, although we use them differently now. Initially we used Social Stories to explain events to Patrick. As he gets older we use Social Stories to help Patrick understand social situations and social expectations. He is also at an age to understand Comic Strip Conversations. Coupled with instant video feedback, the two tools are vital instruments to Patrick’s learning. Comic Strip Conversations also improve Patrick’s ability to understand that someone else in the room may have a thought in their head, and sometimes it’s a different thought or idea than his. Understanding the perspectives of others will be an important part of his social growth.

Emotional regulation and sensory modulation remain challenges as well. We continue to work with his therapists to teach emotions and to educate Patrick on more appropriate reactions to events and how these reactions vary with different settings. As he gets older, we also look for more age appropriate activities to give him the sensory and physical input he needs to regulate his body. Boy, don’t we wish we had an indoor pool in our house for these New England winters! We don’t, so we learn other activities like ice skating, sledding down big hills (so we need to struggle back up!) and moon shoes.

Our family’s journey continues. The good days far outnumber the bad days compared to three years ago, and we are delighted with his progress. Even as this article is being written, a great breakthrough happened today. Patrick and I were in the car on our way to a farm to get pumpkins. I looked up and a huge swarm of birds flew out of a tree in front of us. I said, "Look Patrick, there are so many birds in the sky," as I’ve said hundreds of times in the past with no reaction. Well, I nearly drove off the road when I heard Patrick say, "Wow Mom, there are so many birds!" He noticed and commented with original thought!

Today Patrick is a funny, energetic, creative, oh so very happy little boy with autism whose social communication skills and emotional regulation skills continue to improve. Each year we see the gap between Patrick’s social-communication skills and his peers decreasing. It’s a great challenge for him, but as we continue to provide Patrick the right supports in daily routines, we are confident he will experience success each day, tomorrow and in the future.