

What is Autism Spectrum Disorder?



Autism spectrum disorder (ASD) is a neurodevelopmental disorder defined by persistent deficits in social communication and social interaction, accompanied by restricted, repetitive patterns of behavior, interests, or activities.



The signs of ASD are usually evident in early childhood. Though it is still considered a lifelong diagnosis, with appropriate early intervention, individuals with ASD can lead productive, inclusive, and fulfilling lives. Many children with ASD do well in school, participate in activities they enjoy, go on to college, and are employed in adulthood.

For most parents and professionals, ASD can be a very puzzling and complex disorder. Though a great deal of its mystery has yet to be uncovered, we know much more about it than we did 10 years ago. Just as our understanding has evolved over the years, so has the way we define, diagnose, and treat ASD.

Are there different types of ASD?

ASD used to be called Pervasive Developmental Disorder (PDD). These terms mean the same thing. PDD is the diagnostic classification in the DSM-IV (4th edition of the most widely used diagnostic manual of mental disorders published by the American Psychiatric Association in 1994). In the DSM-IV, PDD included five types or categories: autistic disorder, Asperger's disorder, childhood disintegrative disorder, Rett's syndrome, and pervasive developmental disorder-not otherwise specified (PDD-NOS).

The American Psychiatric Association released the new fifth edition of the DSM in May 2013. In the DSM-5 the term ASD has replaced PDD. Additionally, the DSM-5 does not have any categories under ASD so that all individuals meeting the diagnostic criteria will fall under one autism spectrum. This change was made because research indicates the categories that were under PDD cannot be reliably distinguished. This means the categories of autistic disorder, Asperger's disorder, and PDD-NOS will no longer be used—instead the diagnosis of ASD will be used to cover the full spectrum.

How is ASD diagnosed?

Diagnosing ASD can be difficult because there are no medical or blood tests. The diagnosis is based on behavioral symptoms or features. These features include the absence of or delays in typical developmental milestones and the presence of unusual behaviors.

The diagnosis can involve a two-stage process. The first stage is screening, usually by doctors at well-child visits using validated screening checklists that parents fill out. The second stage is a comprehensive diagnostic evaluation usually conducted by a multidisciplinary team that gathers information from an interview and structured observation.

Early detection means earlier access to intervention. An experienced professional can make a diagnosis of ASD as early as 18 to 24 months of age, but often ASD is not diagnosed until 3 to 5 years of age or later, after the window of opportunity for very early intervention. The American Academy of Pediatrics recommends that all children be screened for ASD at 18 and 24 months of age.



What are early red flags of ASD in toddlers?

The diagnostic features of ASD can be easy to miss in young children. Looking for possible red flags or early signs may help to find children at risk for ASD, and in need of a diagnostic evaluation. If your child shows some of the following red flags, talk to your child's doctor. If you or your child's doctor has concerns about possible ASD, ask for a referral to a developmental specialist or you can contact your local early intervention program.



Red Flags of ASD in Toddlers

Social Communication

- ☐ Limited use of gestures such as giving, showing, waving, clapping, pointing, or nodding their head
- ☐ Delayed speech or no social babbling/chatting
- ☐ Makes odd sounds or has an unusual tone of voice
- ☐ Difficulty using eye contact, gestures, and sounds or words all at the same time
- ☐ Little or no pretending or imitating of other people
- ☐ Stopped using words that they used to say
- ☐ Uses another person's hand as a tool (e.g., putting parent's hand on a jar for them to open the lid)

Social Interaction

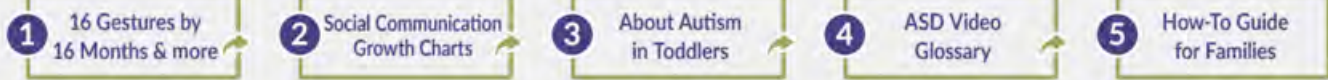
- ☐ Does not look right at people or hard to get them to look at you
- ☐ Does not share warm, joyful expressions
- ☐ Does not respond when someone calls their name
- ☐ Does not draw your attention to things or show you things they're interested in
- ☐ Does not share enjoyment or interests with others

Repetitive Behaviors & Restricted Interests

- ☐ Unusual ways of moving their hands, fingers, or whole body
- ☐ Develops rituals such as lining objects up or repeating things over and over
- ☐ Very focused on or attached to unusual kinds of objects such as strips of cloth, wooden spoons, rocks, vents, or doorstops
- ☐ Excessive interest in particular objects, actions, or activities that interferes with social interaction
- ☐ Unusual sensory interests such as sniffing objects or looking out of the corner of their eye
- ☐ Over- or under-reaction to certain sounds, textures, or other sensory input



A Seamless Path for Families



1 16 by 16™

For all families—the 16 by 16™ Lookbook series helps families and others learn critical social communication skills that children should reach by 16 months to help their child learn to talk.

Did you know that all children should have 16 gestures by 16 months? The 16 by 16™ series is a public awareness campaign designed to help families and others learn critical social communication skills that children should reach by 16 months in order to launch language learning, literacy, and much more by 24 months. This series of online Lookbooks illustrate with photographs each of the critical skills to provide a roadmap for families to monitor their child's early development and celebrate these important small steps their child is making. This information can help families notice small delays early in order to prevent bigger delays later and give all children an edge before preschool to better prepare for success in Kindergarten.

2 Social Communication Growth Charts

For all families—explore video clips to learn key social communication milestones that develop from 9 to 24 months and chart their child's social communication development.

Most parents and professionals are familiar with early motor milestones—when infants learn to hold their head up, turn over, sit up, crawl, and walk. However, few parents or professionals know the key milestones of social, communication, and language development. Yet these milestones offer a critical window into an infant's well being and are the earliest signs of healthy development and school readiness. These Growth Charts are available free to families who have been invited by their doctor or healthcare provider. Parents can explore our side-by-side video player to see video clips illustrating 80 social communication milestones that develop from 9 to 24 months of age in 5 different domains. They can watch the clips again with narration to see how they can support their child's development. Parents can chart their child's development and celebrate these early critical steps in development as they watch their child grow. The Growth Charts offer an unparalleled video library of hundreds of video clips of typically-developing infants and toddlers interacting with their families in everyday activities. This information will help parents be better equipped to monitor their child's development and share and express their concerns with their primary care physician, if their child has not yet met expected developmental milestones.

3 Autism Navigator® — About Autism in Toddlers

For families of children with a positive screen for autism—learn about the early signs of autism with video clips of over a dozen toddlers with ASD at 18-24 months of age, and then see early intervention in action.

Our first online course free to the public is for families, professionals, or anyone interested in learning about autism spectrum disorder (ASD). You will learn about the core diagnostic features and early signs of autism in toddlers, the critical importance of early detection and early intervention, and current information on prevalence and causes of autism. This self-paced course has video clips of over a dozen toddlers with ASD at 18-24 months of age. It takes about 2 hours to go through the slides and videos, or you can spend a few minutes and visit again later.

4 Autism Navigator® — ASD Video Glossary

For families of children with a positive screen for autism who want more information—see a library of hundreds of video clips illustrating diagnostic features and many different interventions.

The ASD Video Glossary is a web-based tool built to help families and professionals learn more about the early signs of autism. This tool was developed by the Florida State University Autism Institute in collaboration with First Signs and Autism Speaks and has been available to the public free of charge since 2007. The Glossary contains more than 100 video clips illustrating the diagnostic features of ASD. Side-by-side video clips show behaviors that are typical in contrast with those that are red flags for autism. The Glossary also contains over 100 video clips to illustrate different common treatments available for children with autism. The ASD Video Glossary is being brought into the Autism Navigator collection and updated both in content based on the new DSM-5 diagnostic framework and in technology for accessibility on mobile devices. The updated ASD Video Glossary will be launched in early 2016.

5 Autism Navigator® — How-To Guide for Families

For families who suspect their child has ASD—get started right away and learn intervention strategies to use in their everyday activities, and support their child's learning and development.

This interactive web-based course is for families who suspect their young child has autism or a social communication delay. It will put in the hands of families hundreds of video illustrations of evidence-based intervention techniques they can implement in everyday activities to support their child's learning as soon as they suspect autism. This self-paced course has 7 hours of interactive slides and 5 hours of video libraries. The course will teach families how to embed strategies and supports into their everyday activities, provide developmental growth charts to help families recognize and monitor meaningful outcomes, and offer video libraries to illustrate how to promote learning and development for young children with ASD. This How-To Guide for Families will also be instrumental for early intervention providers to use with families they serve to improve outcomes of young children with ASD and their families.

16 Gestures by 16 Months

16by16™



Children Should Learn at Least 16 Gestures by 16 Months

Good communication development starts in the first year of life and goes far beyond learning how to talk. Communication development has its roots in social interaction with parents and other caregivers during everyday activities. Your child's growth in social communication is important because it helps your child connect with you, learn language and play concepts, and sets the stage for learning to read and future success in school. Good communication skills are the best tool to prevent behavior problems and make it easier to work through moments of frustration that all infants and toddlers face.



By observing children's early gestures, you can obtain a critical snapshot of their communication development. Even small lags in communication milestones can add up and impact a child's rate of learning that is difficult to change later. Research with young

children indicates that the development of gestures from 9 to 16 months predicts language ability 2 years later, which is significant because preschool language skills predict academic success. So it's important to remember that by 16 months, children should have at least 16 gestures.

Let's consider how gestures develop. While the order or specific gestures may vary slightly, children should be using at least 2 new gestures each month between 9 and 16 months.

Earlier is Better

Catching communication and language difficulties early can prevent potential problems later with behavior, learning, reading, and social interaction. Research on brain development reminds us that "earlier is better" when teaching young children. The most critical period for learning is during the first three years of a child's life. Pathways in the brain develop as infants and young children learn from exploring and interacting with people and objects in their environment. The brain's architecture is developing the most rapidly during this critical period and is the most sensitive to experiential learning. By age 3, most of the major brain circuits are mature, and later it becomes more difficult to make significant changes in a child's growth trajectory. For more information, see "The Science of Early Childhood Development" at the [Center on the Developing Child | Harvard University](#).



9 Months: Give, Shake head

At 9 months, children's earliest gestures begin to develop from their actions—and the reactions of others. Children first learn to take an object. Then, as they are able to control their hand movements to release and drop an object, they gain experience from their parent holding out their hand to catch it—and they learn to **give**.

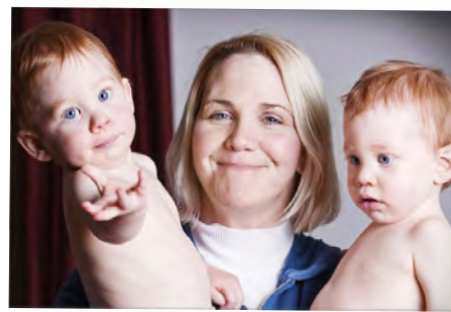
Children learn to **shake their head** to indicate "no" by turning away from food they do not like and then looking back to see their parent respond by moving the undesired food away.



10 Months: Reach, Raise arms

At 10 months, children learn to **reach** through exploration and experiences with others, as they reach to take an object and to be picked up.

As they learn to anticipate the reactions of others, they use a reach gesture as a signal—first, with their arm reaching out, then, with their open hand facing up, and with their **arms raised** to ask to be picked up.



11 Months: Show, Wave

At 11 months, children are motivated to share their interests with others. They learn to hold up and **show** objects to get others to look and notice what they're interested in.



Children are also motivated by the social experience of greeting in everyday routines where special people are coming and going. They learn to wiggle their hand to wave, with a mature **wave** developing later.

12 Months: Open hand, Point, Tap

At 12 months, children use an **open-hand point** with the fingers spread, and a **tap** with the fingers together, as an indicative gesture to draw the attention of others to things of interest. Children's gestures become more clearly intentional and are often produced with emphasis and are now accompanied by grunts or early speech sounds.



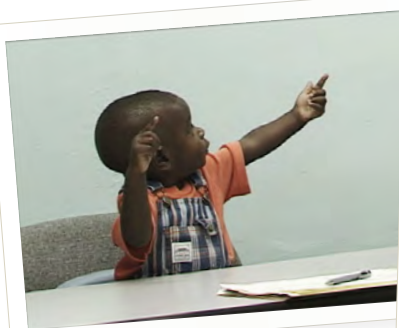


13 Months: Clap, Blow a kiss

At 13 months, children begin to learn through observation—by observing others and copying what they do and say. They learn to use gestures, such as to **clap** their hands and **blow a kiss**, by watching others and imitating them. The gestures and words children are exposed to shape their vocabulary and drive their interest in learning.

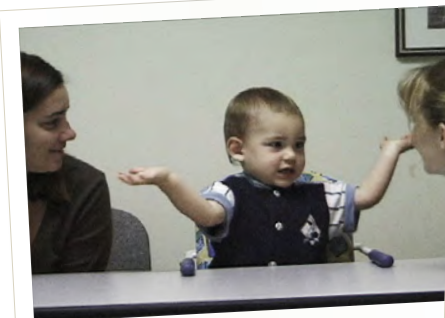
14 Months: Index finger point, Shhh gesture

At 14 months, children **point with the index finger** to reference things at a distance, a sign that observational learning is solid and they are on the cusp of becoming a symbolic communicator. Children also use the index finger for the “**shhh**” gesture. Their growing repertoire of gestures propels the unfolding of spoken words.



15 Months: Head nod, Thumbs up, Hand up

At 15 months, you see symbolic gestures that are like words—a **head nod** or **thumbs up** to indicate “yes”, a **wave** in front of their face to indicate “stinky”, or a **hand up** to indicate “wait”. Gestures now reflect not only what the child is thinking about, but also that they know they are sharing ideas with others.



16 Months: Other symbolic gestures

At 16 months, other symbolic gestures develop—such as “**I dunno**”, “**high 5**”, or even the universal **peace sign**. Gestures now bolster the learning of spoken words.

Having 16 Gestures is a Critical Milestone to Launch Language and Learning

Watching the growth and sophistication of gestures tells you a lot about your child's symbolic communication—and whether to be concerned if your child is not yet talking. While the specific gestures a child learns may vary depending on their family or culture, having 16 gestures by 16 months is a critical milestone for all children because it launches them from early first words into a vocabulary burst at 18 to 21 months. Children now get the idea that everything has a name and they learn new words rapidly.



The richest moments for early language learning are when the child and caregiver are sharing attention on the same thing and the caregiver talks about the child's focus of attention, creating opportunities to learn that stem from social interaction. If a child is not using these early gestures, then the parent may not have the chance to respond and follow the child's focus, which in turn limits the child's opportunity for both language learning and social connectedness.

As a child's gestures are developing between 9 and 16 months, you should also see other social communication milestones—the use of eye gaze and facial expressions to share attention and emotion, an increasing rate of communicating with sounds and gestures, a wider variety of actions in play, and an emerging ability to comprehend the meaning of spoken words. If these early social communication milestones are not solidly in place, it is likely that language will be delayed. It is important to keep in mind that delays in many social communication milestones may indicate risk for autism or other developmental delays. By detecting small gaps in early social communication skills, you can get extra help to support your child's development before significant delays are evident.

About the 16 by 16™ Series

This document is part of the 16 by 16™ series developed by the **FIRST WORDS® Project** to help families and others learn important early social communication milestones that launch language learning and literacy. We hope this information can provide a roadmap for you to support your child's early development. This information can also help you notice small delays early in order to prevent bigger delays later. Some children who are late in communicating outgrow delays, but others need extra help to reach their potential.

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Everyday Activities of Toddlers and Their Families Making Every Moment Count



Toddlers learn by doing. They learn about their world and how to interact with others by exploring and participating in activities around them. For children with autism spectrum disorder (ASD), this is very important. Learning in everyday activities where they use what they learn makes the skills immediately useful and functional and more likely to generalize. Everyday activities and routines at home provide an incredibly rich source of learning opportunities for toddlers.

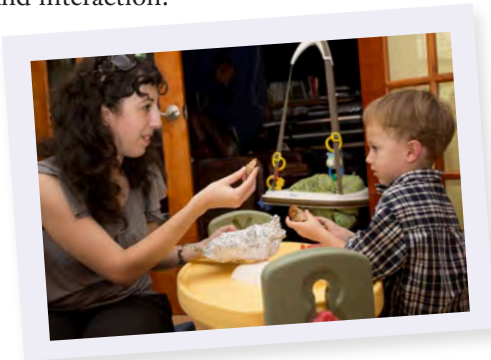
Everyday activities can vary widely across families and cultures, but there are many common activities that families share. Despite differences, most families spend time eating, caring for each other, doing family chores, playing, and learning together. By taking advantage of the activities that you are already spending time doing, you can provide the intensity needed to support your child's learning.

All families of toddlers spend some time in everyday activities in the following 8 activity categories:



Play with People includes social games such as peek-a-boo, “I’m gonna get you” and hide & seek. It also includes songs and rhymes like “Ring-around-the-Rosy” and “Itsy-bitsy Spider.” Because children with ASD can become overly focused on objects, keeping objects out of the activity removes the competition for their attention. It is a good category to get started with because you can quickly learn to provide supports for many components of active engagement and be successful getting your child to look at them, laugh, and share enjoyment.

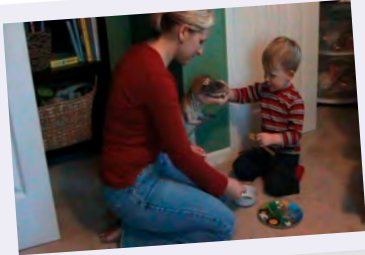
Play with Props is a good next step before activities with small toys and objects. Props include play equipment such as a slide, rocking horse, or swing, and moveable objects, such as a large ball, wagon, blanket, or sofa cushions. Having large props is a way to introduce objects in play without too much competition for attention. By adding motivating actions and movements, you can help to create enjoyment with the object and interaction.



Meals and Snacks provide a great context for sharing enjoyment and interests as well as natural everyday practice of requests and protests. By having your child participate in preparing the food, cooking, setting the table, and cleaning up, you can create more opportunities for practice and learning.

Caregiving Activities such as washing hands, dressing, changing diapers, bathing, and brushing teeth happen many times a day and can be structured to offer many opportunities for productive roles, social interaction, and communication.





Play with Toys includes constructive play with solid objects like blocks and puzzles; or fluid materials like play dough, sand, or finger paint, and pretend play with vehicles, animals, or dolls. Children with ASD may have limited skills in pretend play or restricted interests to particular toys. They may have relative strengths with constructive play, and therefore, that may be easier to get started to promote social interaction when playing with toys.

Family Chores like picking up toys, putting clothes in the laundry, feeding a pet, getting the mail, or taking out the trash or recycling are opportunities to engage your child. Taking advantage of the time that you already spend doing family chores can create learning opportunities during these necessary tasks.



Books, Letters, and Numbers can help promote language and literacy. Children with ASD are often interested in shapes, colors, letters, and numbers. These activities can be set up to promote interaction and sharing interests with books, magazines, photo albums, iPad apps, or computer games.



Transitions are the moments that occur between activities and are critical to adding predictability to what is coming next as well as expanding opportunities for learning throughout the day. Teaching your child how to “make a plan” as one activity ends can help provide a smooth transition and promote active engagement from one activity to the next.



Practice makes perfect! Learning to embed intervention supports and strategies in a variety of everyday activities across these 8 categories will promote learning and generalization for both you and your child. However, moving from simply having opportunities to promoting active engagement for a toddler with ASD can be challenging. It may require careful planning and support by you and your early intervention provider. Families may need help to expand meaningful activities with new ideas or to add new types of routines and activities that will build your child's inventory of experiences.

Variety is the spice of life! As you gain confidence and your child makes gains, you are encouraged to create “hybrid” categories by mixing elements, such as playing with toys in the bathtub, looking at a photo album during snack, or playing a social game during diaper changing.

All the world's a stage! The home provides a safe context for you to become comfortable and confident using intervention supports and strategies that you are learning. But don't forget that learning opportunities extend beyond the walls of home.

These 8 activity categories can be extended to places in the community. Families go to the grocery store, the post office, the doctor, and run all sorts of other errands. Toddlers and their families also spend time at the neighborhood playground, library, church, or temple. Families visit other family members and friends, attend school activities for siblings, or go out to dinner. These natural environments in the community also provide rich and varied opportunities where learning can occur.

Parents are often surprised to find that some of the most fruitful opportunities for a child to learn occur in the context of the activities you are already doing each day. When you take a close look at how your family spends time, you will find moments for learning where you least expect it. Most importantly, by taking advantage of the ordinary events of everyday life, you really do make every moment count for your child's learning. Moments add up to minutes and hours that are critical to achieve the intensity needed to impact learning and development for a child with ASD.

About Active Engagement

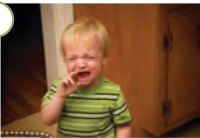


What is Active Engagement?

Children are actively engaged if they are....

Step 1: Coming Together

1



Well Regulated. Your child feels generally content and their needs are met. When fussy, they get over it easily.

2



Productive. Your child is doing something productive in an every day activity or in play, and can include people in those experiences.

3



Socially connected. Your child notices you by turning or looking toward you, pays attention to what you are doing together and keeps the interaction going.

4



Looking at your face often. Your child looks toward you both when asking you to do something and sharing enjoyment and interest.

5



Responding to your voice and words. Your child may not yet understand exactly what is being said, but understands that you have asked for their attention or for them to do something.

6



Communicating directly to you. Your child uses gestures, sounds or words to send a message without being asked.

Step 2: Keeping Together

7



Being Flexible. Your child moves easily between actions, activities, or materials rather than getting "stuck" on certain objects or ideas.

8



Generating new ideas. Your child comes up with creative ideas to advocate for themselves, to describe something they see, to share with you about a new and different plan, or a new way to play.

Step 3: Working Together

Why is active engagement so important?

Active engagement means a child is ready to interact and learn, be productive, communicate with those around them, and "hang in" when faced with challenges or change. Learning how to keep your child actively engaged is important, because research shows that children with autism spectrum disorder who have at least 25 hours of engaged time per week do better in kindergarten than those who do not.

***Coming together is a beginning.
Keeping together is progress.
Working together is success.***
--- Henry Ford

You are learning strategies to help you keep your child engaged so that you can achieve 25 hours of time each week helping your child interact and learn. Active engagement can occur in every day activities that your family already spends time doing like caregiving, having meals and snacks, playing, sharing books, and doing family chores. It can also happen in community settings such as a grocery store, playground or a restaurant. Your interventionist will help you see what elements of active engagement are going well, and what areas need more support. Your effort to promote active engagement now will have a lasting impact on your child's social and academic success.

About Transactional Supports



What are Transactional Supports?

The term “Transactional Supports” refers to the supports or strategies used by parents to promote their child’s learning and development. The following evidence-based intervention supports and strategies can be used in everyday activities with your child to promote active engagement and social communication development. These supports are organized into three layers; 1) Supports for a Shared Agenda, 2) Supports for Social Reciprocity, and 3) Supports for Better Skills. Like making a layer cake, it’s important to develop the first layer before adding the second and third layers. Below is a suggested order for introducing each support within a layer. Because they are cumulative, later supports rely on earlier supports being in place.



First Layer: Supports for a Shared agenda

(so that you and your child are participating in the activity together)

1. **A motivating activity** is something your child wants to do that includes interesting materials. Activities such as hand washing are necessary but may not be motivating. Knowing that a fun activity is coming after a necessary activity is one way to make a necessary activity motivating. Adding interesting materials or other supports for a shared agenda can also help make necessary activities more interesting or sensible for your child and might even make them more fun.
2. **A productive role** lets your child know exactly what to do and that they are expected to use materials in an appropriate way and actively attend and participate. Roles can be as simple as turning a page, dropping clothes into a hamper from the dryer, or gathering materials for a painting activity.
3. **Predictability of the activity** lets your child know what is coming next by making the beginning, middle, and end of each activity clear to your child.
4. **Positioning** yourself so that you are close by, at your child’s level, and face-to-face to make it easier for your child to notice you, look at you, and interact with you.
5. **Follow your child’s attentional focus** means noticing and talking about what your child is paying attention to, doing, or experiencing. Asking your child to shift their attention to something else is placing more burden on your child’s social attention and can interfere with establishing a shared agenda.

Second Layer: Supports for Social Reciprocity

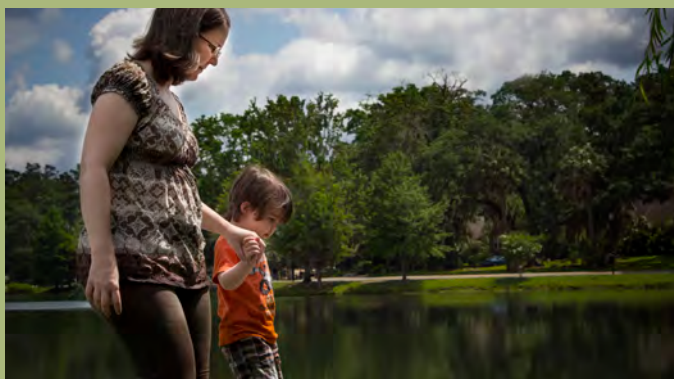
(so that there is a give and take in interaction)

6. **Promote child initiation** by setting up a reason for your child to communicate, then waiting. When you ask your child to say a word they practice responding- not initiating communication. Natural pauses encourage your child to practice communicating their own ideas.
7. **Balance turns** so that you take no more than 1 ½ turns for each of your child's turns. Keep in mind that your turn can be a comment, gesture or action that supports your child to take a turn next. Your child may also take turns using actions, gestures, or words.
8. **Natural reinforcers** such as offering help, comfort, a favorite snack or toy, shared enjoyment, or shared interest naturally reward your child's communication. Saying "good talking!" has no connection with the intention your child is trying to communicate and therefore does not help your child learn that their words have power and meaning.
9. **Clear messages to ensure comprehension** make it clear to your child that you expect them to listen to and act on your words. Gestures or other contextual support are offered to ensure that your child understands your message. Language that is optional for your child to listen to may give the impression that the language of others can be "tuned out" or disregarded.

Third Layer: Supports for Better Skills

(to promote social communication development)

10. **Model language, play, and interaction** to help your child know what they could say or do. Model language just above your child's level, and use their perspective when possible, "as they would say it if they could". Providing a model of language or behavior builds better skills by example and by giving the turn back to your child. Giving directions or asking questions can provide a more limited response and may not build better skills.
11. **Extend the activity, roles, and transitions** to build on play, interaction, and connectedness. "Stretching" engaged time spent in activities and expanding roles your child can take on during transitions can add up quickly to more engaged time per week.
12. **Adjust expectations and demands** by offering more support when your child is struggling, and increasing expectations when things are going well to keep your child moving forward. Over time, you should be able to do less of the "work" and shift more responsibility to your child to keep interaction and communication going.
13. **Balance interaction and independence** by supporting interaction but also building independence with an eye toward what your child needs to learn in a group setting to prepare for the skills needed in preschool and kindergarten classrooms.



You can promote your child's learning and development by putting supports and strategies in place in everyday activities. Soon you will feel confident making every moment an opportunity to practice and learn! This allows you, with the support of your EI provider, the opportunity to achieve the intensity needed to support active engagement for your child with ASD. Supporting your child's ability to be flexible, to use a variety of materials, easily shift attention between materials or topics and people and not show rigidity or resistance to change, may indicate a good balance between the ability to work alone and to include others, setting the stage for self-directed learning and classroom success.

Identifying Priority Intervention Outcomes



Families and providers need to build consensus on the highest priority outcomes to target in intervention. The child's individual growth trajectory in each developmental domain can guide decisions about what intervention outcomes are priorities and developmentally sensible for the child. A developmental framework can offer a roadmap so that expectations are reasonable with an eye toward the next developmental milestones. We have developed Social Communication Growth Charts in five key domains that form a critical foundation for social communication development to help families monitor their child's development. You can find the growth charts in Tools under Family Materials.

A good place to start in identifying priority intervention outcomes is to build consensus with families on what their child can and cannot do at the present moment and what are next steps in development. As a general guideline, most of the milestones are learned in the order listed within each Growth Chart and emerge in the first 2 years of life in typical development. But children may acquire skills on different Growth Charts at varying rates. Some domains and some skills are easier for some children and harder for others. Social communication skills can be particularly difficult for children with autism spectrum disorder (ASD). The toddler years provide a critical window of opportunity to support development of these skills. Whether a child is typically developing or at risk for a developmental delay or ASD, the milestones on the Social Communication Growth Charts are important for all children to be well prepared for preschool and kindergarten. These Growth Charts may be particularly helpful when working with families who suspect their child may have ASD but does not yet have a diagnosis.

A child's core deficits of autism can impact social communication development and have a cascading affect on learning. The core deficits can have a negative impact on development by interfering with attention to important information in the learning environment or by limit-

Social Communication Growth Charts

Play—how toddlers learn and make connections with the physical world and how things work.

Language—how toddlers become masters of interaction and communication first using and understanding gestures, sounds, and words, then sentences, generative language, and conversation.

Social Competence—how toddlers learn to share enjoyment, interests, ideas, feelings, and experiences to connect with others in a balanced, reciprocal exchange.

Emotional Regulation—how toddlers experience emotions, learn to regulate or manage their emotions, and focus and refocus attention based on their emotions.

Self-Directed Learning—how toddlers make connections between object, space and people, and develop active learning strategies and creative and flexible thinking.

ing social interaction, and therefore, limiting opportunities to learn from others. The core deficits of autism can also have a positive impact on development by enhancing skills related to a child's strong interests.

We need to build the capacity of children with ASD to be actively engaged so they can benefit from the natural learning environment. Children are actively engaged if they are able to regulate their emotions, take active roles and participate productively in activities, flexibly shift their attention between objects and people and from one activity to the next, communicate with words, gestures, and facial expressions, and generate creative ideas. A linchpin of early intervention is helping families of toddlers with ASD enhance their child's active engagement (AE) to support learning and development in the natural environment.

The Social Communication Growth Charts provide the little steps to target and help families see change within these 5 developmental domains in skills that are critical to address the core deficits of ASD. The components of AE provide a bigger framework for prioritizing outcomes to address how the core deficits of autism can impact the ability to pay attention to and learn from people.

**“Coming together is a beginning,
keeping together is progress,
and working together is success.”**

Henry Ford

An important next step in identifying priority intervention outcomes is to consider the child’s level of AE and how it varies across everyday activities and contexts. We use an organizational framework to help you remember and explain the components of AE to families based on a famous quote by Henry Ford, the founder of Ford Motor Company. We have organized the 8 AE components into these 3 steps—Step One: Coming Together includes the first 3 AE components, Step Two: Keeping Together includes the next 3, and Step Three: Working Together includes the last 2. (*See table on next page.*)

As the provider and family discuss priorities, it is important to examine the child’s participation within the context of a variety of everyday activities and ask if the child has each of the components of AE. If not, then de-

cide which components of AE to target and what developmental skills from the Growth Charts are needed for mastery of each. Generally, we recommend starting with components at Step One: Coming Together. Once the child has mastered those components in an activity, then move on to Step Two: Keeping Together for that activity, and so on until the child has mastered all components of AE in each activity. You may be targeting very different levels of AE and social communication milestones in different activities based on factors that influence how easy or motivating that activity is for the child.

As a general rule of thumb, you will want to identify 1 or 2 priority intervention outcomes for a family to target in each activity and have the family practice supporting learning in 3 to 5 different activities in at least 3 different activity categories per week. Intervention targets should be updated monthly or sooner if the child has acquired developmental milestones. Remember that by teaching families to embed intervention strategies into everyday activities, we are not asking them to do anything that they are not already doing—we are just helping them to make sure their child is learning during these everyday activities. Most toddlers learn without intentional teaching or without their parents arranging specific learning opportunities, but toddlers with autism may not. By teaching families to support learning in everyday activities for toddlers with ASD, we can offer the density of practice and learning opportunities needed to change developmental trajectories of social communication skills.

In addition to the Social Communication Growth Charts, we have developed two other documents for you to share with families to help introduce and discuss these concepts:

About Active Engagement

This describes the 8 components of AE organized into 3 steps and explains why AE is so important for children with ASD.

Everyday Activities of Toddlers and their Families: Making Every Moment Count

This describes 8 categories of everyday activities that can provide an incredibly rich source of learning opportunities for toddlers and how families can take advantage of the activities that you are already spending time doing to provide the intensity needed to support learning for a toddler with ASD.

ACTIVE ENGAGEMENT	Things to Consider in Identifying Priority Outcomes
First Step: Coming Together	
<p>1. Is the child well regulated and able to manage emotions in order to remain available for social interaction and learning and so that dysregulation does not interfere?</p>	<ul style="list-style-type: none"> • Consider the child's ability to manage emotions and stay motivated on their own and with help from others. • Consider how expectations, demands, and supports in each activity affect the child's regulation. • Refer to the Emotional Regulation Growth Chart to figure out what is helping regulation and next steps. • Refer to the Play and Language Growth Charts to identify new skills to better manage emotion.
<p>2. Is the child productive within activities and interactions by using materials in an appropriate way, actively attending (listening and responding), and participating in active, and meaningful roles?</p>	<ul style="list-style-type: none"> • Consider the child's ability to use different materials appropriately, attend to others, and participate in roles. • Consider how expectations, demands, and supports in each activity affect the child's participation. • Refer to the Play, Language, and Self-Directed Learner Growth Charts to identify new skills that will expand ways to use materials or interact and the variety of roles.
<p>3. Is the child socially connected by orienting to the partner, participating in an activity that has a shared agenda; and responding and adjusting to interactions in a reciprocal way?</p>	<ul style="list-style-type: none"> • Consider the child's ability to orient to people and participate in what others are doing. • Consider how expectations, demands, and supports in each activity affect the child's orientation and participation. • Refer to the Social Competence Growth Chart to identify new skills to increase shared participation, common focus, and reciprocal interactions.
Second Step: Keeping Together	
<p>4. Is the child looking at faces in social interactions to get wants and needs met and to share enjoyment and interests?</p>	<ul style="list-style-type: none"> • Consider the child's ability to get wants and needs met and to share enjoyment or interest with others. • Consider how expectations, demands, and supports in each activity affect the child's gaze. • Refer to the Social Competence and Language Growth Charts to identify new skills to increase looking at faces.
<p>5. Is the child responding to bids for interaction with a word, sound, gesture, or action?</p>	<ul style="list-style-type: none"> • Consider the timing and level of the child's responses across domains. • Consider how expectations, demands, and supports in each activity affect the child's response to social bids. • Refer to the Play, Language, and Social Competence Growth Charts to identify new skills to expand the ways to respond to social bids and increase the level.
<p>6. Is the child initiating communication with gestures, sounds, and/or words that is directed to others?</p>	<ul style="list-style-type: none"> • Consider the rate and level of the child's initiation. • Consider how expectations, demands, and supports in each activity affect the child's initiation. • Refer to the Language, and Social Competence Growth Charts to identify new skills to expand the ways to initiate communication and increase the level.
Third Step: Working Together	
<p>7. Is the child flexible by using materials in varied ways and appropriately, being able to shift attention between materials or topics and people, and not showing rigidity or resistance to change?</p>	<ul style="list-style-type: none"> • Consider the child's ability to initiate and adapt to change across activities. • Consider how expectations, demands, and supports in each activity affect the child's rigidity and resistance. • Refer to the Emotional Regulation, Play, Social Competence and Self-Directed Learner Growth Charts to identify new skills to expand the ways to use materials and handle new and changing situations.
<p>8. Is the child using generative language to advocate for self and assert independence by suggesting a change of activity or topic or suggesting a new or creative idea?</p>	<ul style="list-style-type: none"> • Consider the child's ability to advocate for self and initiate new ideas with language? • Consider how expectations, demands, and supports in each activity affect the child's opportunities to be generative. • Refer to the Language and Self-Directed Learner Growth Charts to identify new skills to expand the ways to advocate for self and initiate new ideas.

Building Supports from the Bottom Up: Promoting Your Child's Active Engagement



3rd Layer: Better Skills

- 10 **Model language, play and interaction** so that the child knows what they could say or do.
- 11 **Extend the activity, roles and transitions** to build on play, interaction and connectedness.
- 12 **Adjust expectations and demands** by offering more support when needed, and increasing expectations when things are going well.
- 13 **Balance interaction and independence** so that your child can be active and flexible whether alone, with a partner or in small groups.

Activity

Activity					

2nd Layer: Social Reciprocity

- 6 **Promote child initiation** by pausing during interaction and waiting for directed communication.
- 7 **Balance turns** so that there is no more than 1 ½ parent turns per child turn.
- 8 **Natural reinforcers** such as a requested object, help, comfort or shared enjoyment naturally reward communication.
- 9 **Clear messages to ensure comprehension** have expectation for child to listen to and act on the language heard.

1st Layer: Shared Agenda

START HERE ►

- 1 **A motivating activity** includes interesting materials and is developmentally sensible.
- 2 **A productive role** lets child know exactly what to do and keeps them actively involved.
- 3 **Predictability** lets child know what is coming next and helps them get ready for change.
- 4 **Positioning** supports interaction when it is on child's level and face to face.
- 5 **Following child's focus** means talking about what the child is paying attention to.

Keeping an Eye on Weekly Progress: How's it going? Where do we go from here?



Child's Name: _____ Date: _____

Provider: _____

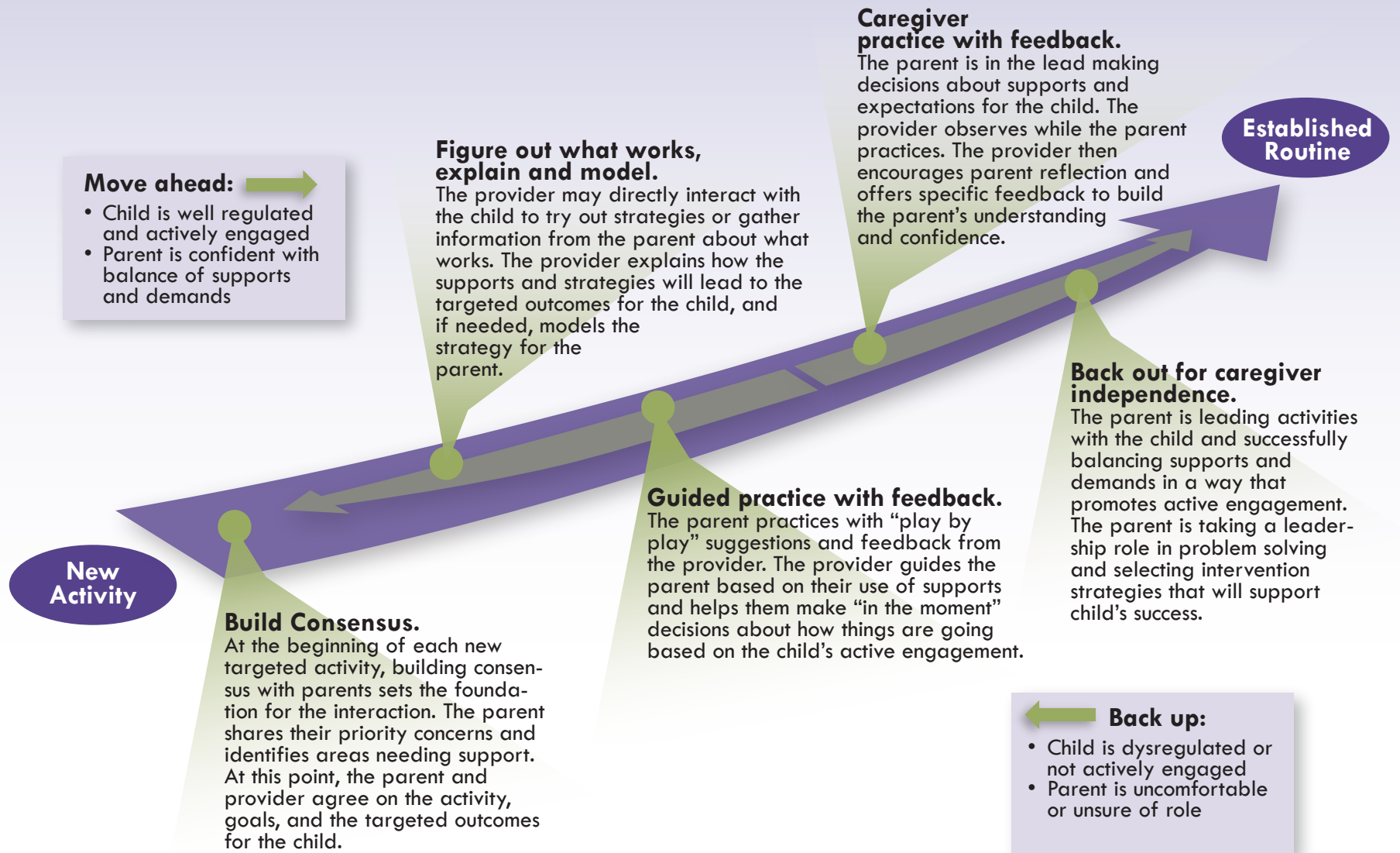
		Activity														
		AE TS		AE TS		AE TS		AE TS		AE TS						
Step 1	Active Engagement (AE)											Transactional Supports (TS)				
	Is the child practicing Step 1: Coming Together?											Is the parent using 1st Layer Supports for a Shared Agenda?				
	1. Well regulated?											1. Motivating activity?				
	2. Productive?											2. Productive roles?				
	3. Socially connected?											3. Predictability?				
												4. Positioning?				
												5. Following child's focus?				
	If no, work on this step. If yes, move on.											If no, target this layer. If yes, move on.				
Step 2	Is the child practicing Step 2: Keeping Together?											Is the parent using 2nd Layer Supports for Social Reciprocity?				
	4. Looking at faces?											6. Promoting initiation?				
	5. Responding to bids for interaction?											7. Creating a balance of turns?				
	6. Initiating directed communication?											8. Using natural reinforcers?				
												9. Giving clear messages to ensure comprehension?				
	If no, work on Step 2. If yes, move on.											If no, target this layer. If yes, move on.				
Step 3	Is the child practicing Step 3: Working Together?											Is the parent using 3rd Layer Supports for Better Skills?				
	7. Flexible?											10. Modeling language, play, and interaction?				
	8. Using generative language?											11. Extending the activity, child's roles, and transitions?				
												12. Adjusting expectations and supports?				
												13. Creating a balance of interaction and independence?				
	If yes to both, move on to a new activity.											If no, target this layer. If yes, move on to a new activity.				

Activity	AE Priority for the child
_____	_____
_____	_____
_____	_____
_____	_____

Activity	TS Priority for the parent
_____	_____
_____	_____
_____	_____
_____	_____

Autism NAVIGATOR®

Continuum of Collaborative Coaching Model



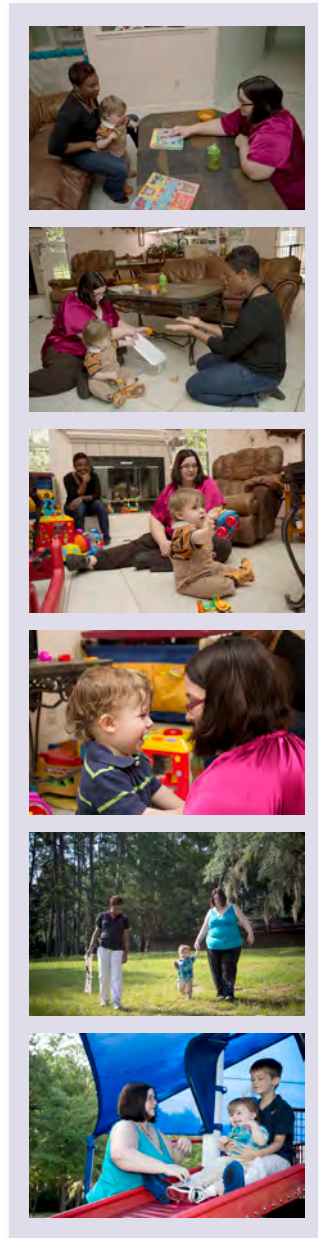
Continuum of Collaborative Coaching Model



Coaching to Build Caregiver Capacity

Coaching in early intervention uses a collaborative process - not an expert model. At the foundation of the coaching relationship is the Early Intervention (EI) provider's willingness and ability to share their knowledge of evidence-based practice in order to build the capacity of a parent to make decisions and lead the intervention process with confidence. When coaching, the EI provider must go beyond relationship-based strategies and incorporate real life practice and clear explanations that help promote confident action and decision-making. Parents also gain confidence by problem solving and reflecting with EI providers. Using high order learning strategies with a trusted coach enables parents to brainstorm when and how to apply the interventions in other situations and settings, to get feedback on what might work, and what to do if it doesn't. Equipping parents to support their children when the EI providers are not present is the ultimate goal of coaching.

The progression of coaching strategies demonstrated by the arrow provides a framework for teaching and expanding intervention strategies to new activities and routines. The goal is to meet parents where they are in the current moment by providing support for their learning and a scaffold to increase their independence as quickly as possible. The many everyday activities that families are spending time doing with their toddlers provide the context for embedded intervention in natural environments. The EI provider can support parent's confidence and competence as they make every moment an opportunity to practice and learn with increasing independence. This is a viable way to provide the intensity needed to support active engagement for toddlers with ASD. The impact of early intervention can increase exponentially if parents achieve independence and continue to support active engagement and advocate for their child during preschool, the transition to kindergarten, and beyond. This reflects the intention behind the IDEA legislation for services and supports in the natural environment to build the family's capacity to enhance their child's development.



Deciding When to Move Ahead or Back Up along the Arrow

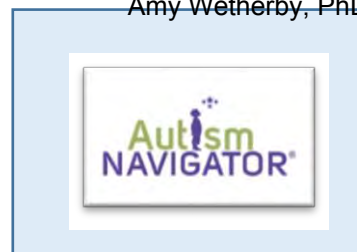
The arrow portrays the continuum of collaborative coaching that is fluid in nature, meaning that the EI provider "moves ahead" by supporting parent independence as things are going well, or "backs up" by offering more direct support when needed. The provider should find the point on the arrow that meets the needs of the family in the moment, but should always keep an eye on the bigger goal of parent independence. The provider's role is to give parents just the right amount of support needed to feel confident getting their child actively engaged—no more and no less.

The decision to move ahead or back up is based on many factors and may even change from minute to minute, activity to activity, or day to day. This will depend on the parent's level of competence and confidence to actively engage the child in a specific activity and specific moment within the activity. The EI provider may need to fluctuate along the arrow based on both the parent and child depending on the newness of the activity and how motivating the activity is. In some situations, the provider's role to offer support will be very clear and solicited by the family. Families may express frustration that the child finds hand washing unpleasant and they need new ideas to make it work, or that a favorite toy has become so enticing that it is getting difficult to motivate the child to participate in other activities. The provider will want to build consensus with the family about the issue at hand and the child's priority outcomes. The provider will need to consider how things are going outside of the intervention sessions, and help to brainstorm and problem solve. The parent may need the provider to model a strategy that the parent is not yet familiar with, and then closely guide the parent's practice to ensure success. But modeling should be used judicious-

ly with an eye toward moving ahead to guided practice as quickly as possible so that the parent's confidence is not undermined. Once it is clear what works to support the child, the provider should move ahead and back out for caregiver independence as soon as possible, so that the parent gets the needed practice with the support of the provider close by.

When the parent is more comfortable and is practicing a familiar activity, the provider still observes with a keen eye on the child's active engagement and parent's use of transactional supports. Often the provider is able to offer a different perspective and may notice an opportunity for better active engagement that the parent may not yet recognize. The provider may simply offer a quick suggestion of an additional role for the child as they observe. In other situations, the parent may first practice an activity, and then have the opportunity to reflect with the provider on the elements of active engagement that are in place. The parent and provider can then identify next steps as the parent moves toward independence.

Effective coaching allows the parent to experience the payoff of meaningful interaction with their child and build a sense of competence and confidence, because what matters most is what the parent can do outside of the intervention session when the provider is not there. Parents who are coached with an eye toward independence also become good advocates for what their child needs beyond the home environment. They are able to teach other family members, caregivers, and teachers how to best support their child's development and learning in the larger context of community and educational settings.



Are you providing early intervention services in Pennsylvania? Do you need an outstanding, no-cost, online, video-rich, and practical professional development opportunity for supporting young children with autism? If so, Autism Navigator might be for you!

The ***Autism Navigator for Early Intervention Providers: Knowledge and Skills*** is a 30 hour, online course developed by the Florida State University Autism Institute with a commercial value of \$625. It integrates the most current research on early identification and early intervention of Autism Spectrum Disorder (ASD) and provides practice based guidance and resources for intervention. It is geared to Infant-Toddler Early Intervention providers, but has relevance for Preschool Early Intervention.

To find out if you are eligible for free PA enrollment through EITA and how to enroll, read the ***“FAQs AN Enrollment PA”*** and ***“About the Course”*** documents available on the **EITA Portal page**. Go to <http://www.eita-pa.org/autism/>, scroll to the Professional Development section on this page, and then click the “Autism Navigator” button to download these documents.

Don’t miss this outstanding professional development opportunity.