

Module: Pivotal Response Training

Evidence-Based Practice Brief: Pivotal Response Training

This evidence-based practice brief on pivotal response training includes the following components:

- 1. Overview, which gives a quick summary of salient features of the practice, including what it is, who it can be used with, what skills it has been used with, settings for instruction, and additional literature documenting its use in practice**
- 2. Steps for Implementation, detailing how to implement the practice in a practitioner-friendly, step-by-step process**
- 3. Implementation Checklist for Pivotal Response Training**
- 4. Evidence Base Summary, which details the NPDC-ASD criteria for inclusion as an evidence-based practice and the specific studies that meet the criteria for this practice**
- 5. PRT Data Collection Sheets**

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Overview of Pivotal Response Training (PRT)

Vismara, L.A., & Bogin, J. (2009). *Steps for implementation: Pivotal response training*. Sacramento, CA: The National Professional Development Center on Autism Spectrum Disorders, The M.I.N.D. Institute, The University of California at Davis School of Medicine.

Pivotal Response Training (PRT) is a method of systematically applying the scientific principles of applied behavior analysis (ABA) to teach learners with autism spectrum disorders (ASD). PRT builds on learner initiative and interests, and is particularly effective for developing communication, language, play, and social behaviors. PRT was developed to create a more efficient and effective intervention by enhancing four pivotal learning variables: motivation, responding to multiple cues, self-management, and self-initiations. According to theory, these skills are pivotal because they are the foundational skills upon which learners with ASD can make widespread and generalized improvements in many other areas.

Evidence

PRT meets the criteria for an evidence-based practice with nine single subject design studies supporting its teaching practices. PRT constitutes an efficient and effective mode of intervention for promoting appropriate social communicative and adaptive behavior for children at the preschool and elementary school levels and for adolescents and young adults at the middle and high school level.

With what ages is PRT effective?

According to the studies that form the evidence base for PRT, children from 2 to 16 years of age have benefitted from PRT intervention. Research has shown that the use of motivational techniques inside PRT's teaching framework can lead to 85-90% of children with autism, who begin intervention before the age of 5, developing verbal communication as a primary mode of communication. More recently, though, researchers have identified specific behavioral characteristics associated with favorable responses to the teaching practices. Precursors related to positive outcomes thus far, include increased use of social initiations, less social avoidance, more toy play, and stereotypic language.

What skills or intervention goals can be addressed with PRT?

The focus of PRT is to teach children and youth with ASD certain **pivotal behaviors** through a set of specific training procedures, which, when learned, will lead to the development of new behaviors. The pivotal behaviors targeted in PRT are: motivation, responding to multiple cues, self-management, and self-initiations. By acquiring these behaviors children can learn skills in the areas of academics, social, language/communication, and self management. Improvements in these areas will promote a variety of social-communicative behaviors, such as communication, imitation, play skills, joint attention, and will reduce inappropriate, maladaptive behaviors.

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In what settings can PRT be effectively used?

The ultimate goal of PRT is to provide learners with autism with the social and educational skills to participate independently in enriched and meaningful lives in inclusive settings. PRT emphasizes the importance of training parents as primary intervention agents; however, other family members (e.g., siblings, secondary caregiver), staff (e.g., teachers, school personnel, consultants), and typically developing peers are also included as intervention agents. As a result, PRT has been successfully implemented in a variety of naturalistic settings, including school, home, and community. Further, teaching in varied and more naturalistic environments has been demonstrated to promote generalization of skills.

Evidence Base

The studies cited in this section document that this practice meets the NPDC on ASD's criteria for an evidence-based practice. This list is not exhaustive; other quality studies may exist that were not included.

Preschool

Jones, E. A., Carr, E. G., & Feeley, K. M. (2006). Multiple effects of joint attention intervention for children with autism. *Behavior Modification, 30*, 782-834.

Koegel, R. J. L., Camarate, S., Koegel, L. K., Bea-Tall, A., & Smith, A. E. (1998) Increasing speech intelligibility in children with autism. *Journal of Autism and Developmental Disorders, 28*(3), 241-251.

Koegel, R. L., Dyer, K., & Bell, L. K. (1987). The influence of child preferred activities on autistic children's speech behavior. *Journal of Applied Behavioral Analysis, 20*, 243-252.

Koegel, R. L., Koegel, L. K., Surrat, A. (1992). Language intervention and disruptive behavior in preschool children with autism. *Journal of Autism and Developmental disorders, 22*(2), 141-153

Stahmer, A. C. (1995). Teaching symbolic play skills to children with autism using pivotal response treatment. *Journal of Autism and Developmental Disorders, 25*, 123-141.

Whalen, C., & Schreibman, L. (2003). Joint attention training for children with autism using behavior modification procedures. *Journal of Child Psychology & Psychiatry, 44*(3), 456-468.

Elementary

Koegel, R. J. L., Camarate, S., Koegel, L. K., Bea-Tall, A., & Smith, A. E. (1998). Increasing speech intelligibility in children with autism. *Journal of Autism and Developmental Disorders, 28*(3), 241-251.

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Koegel, R. L., Dyer, K., & Bell, L. K. (1987). The influence of child preferred activities on autistic children's speech behavior. *Journal of Applied Behavioral Analysis, 20*, 243-252.

Pierce, K., & Schreibman, L. (1997). Multiple peer use of pivotal response training to increase social behaviors of classmates with autism: results from trained and untrained peers. *Journal of Applied Behavioral Analysis, 30*, 157-160.

Thorp, D. M., Stahmer, A. C. & Schreibman, L. (1995). Effects of sociodramatic play training on children with autism. *Journal of Autism and Developmental Disorders, 25*, 265-282.

Middle/High School

Koegel, R. L., Dyer, K., & Bell, L. K. (1987). The influence of child preferred activities on autistic children's speech behavior. *Journal of Applied Behavioral Analysis, 20*, 243-252.

Koegel, R. L. & Frea, W. D. (1993). Treatment of social behavior in autism through the modification of pivotal social skills. *Journal of Applied Behavior Analysis, 26*, 369-377.

Additional References

Dibley, S., & Lim, L. (1999). Providing choice making opportunities within and between daily school routines. *Journal of Behavioral Education, 9*(2), 117-132.

Dunlap, L.K., Dunlap, G., Koegel, L. K., & Koegel, R. L. (1991). Using self-monitoring to increase independence. *Teaching Exceptional Children, 23*, 17-22.

Dunlap, G., & Koegel, R. L. (1980). Motivating autistic children through stimulus variation. *Journal of Applied Behavior Analysis, 13*, 619-627.

Koegel, L. K., Carter, C. M., & Koegel, R. L. (2003). Teaching children with autism self-initiations as a pivotal response. *Topics in Language Disorders, 23*(2), 134-145.

Koegel, L. K., Koegel, R. L., Harrower, J. K., & Carter, C. M. (1999). Pivotal response intervention I: Overview of approach. *Journal of Association for Persons with Severe Handicaps, 24*(3), 174-185.

Koegel, R. L., & Koegel, L. K. (2006). *Pivotal response treatments for autism: Communication, social, and academic development*. Baltimore: Brookes Pub. Co.

Koegel, R. L., Koegel, L. K., & McNerney, E. K. (2001). Pivotal areas in intervention for autism. *Journal of Clinical Child Psychology, 30*, 19-32.

Koegel, R. L., Openden, D., Fredeen, R., & Koegel, L. K. (2006). The basics of pivotal response treatment. In R.L. Koegel and L.K. Koegel (Eds.) *Pivotal Response Treatments for Autism: Communication, Social, & Academic Development*, (pp. 3-30). Baltimore: Brookes Publishing.

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Koegel, R. L., Schreibman, L., Good, A., Cerniglia, L., Murphy, C., & Koegel, L. K. (1987). *How to teach pivotal behaviors to children with autism: A training manual*. Santa Barbara, CA: University of California.

Schreibman, L., & Koegel, R. L. (2005). Training for parents of children with autism: Pivotal responses, generalization, and individualization of intervention. In E.D. Hibbs & P.S. Jensen (Eds.) *Psychological treatments for child and adolescent disorders: Empirically based strategies for clinical practice (2nd edition)*, (pp. 603-631). Washington, DC: American Psychological Association.

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Evidence Base for Pivotal Response Training (PRT)

The National Professional Development Center on ASD has adopted the following definition of evidence-based practices.

To be considered an evidence-based practice for individuals with ASD, efficacy must be established through peer-reviewed research in scientific journals using:

- *randomized or quasi-experimental design studies*. Two high quality experimental or quasi-experimental group design studies,
- *single-subject design studies*. Three different investigators or research groups must have conducted five high quality single subject design studies, or
- *combination of evidence*. One high quality randomized or quasi-experimental group design study and three high quality single subject design studies conducted by at least three different investigators or research groups (across the group and single subject design studies).

High quality randomized or quasi experimental design studies do not have critical design flaws that create confounds to the studies, and design features allow readers/consumers to rule out competing hypotheses for study findings. High quality in single subject design studies is reflected by (a) the absence of critical design flaws that create confounds and (b) the demonstration of experimental control at least three times in each study.

This definition and criteria are based on the following sources:

Horner, R., Carr, E., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single subject research to identify evidence-based practice in special education. *Exceptional Children, 71*, 165-180.

Nathan, P., & Gorman, J. M. (2002). *A guide to treatments that work*. NY: Oxford University Press.

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. D., Thompson, B., & Harris, K. (2004). *Quality indicators for research in special education and guidelines for evidence-based practices: Executive summary*. Arlington, VA: Council for Exceptional Children Division for Research.

Rogers, S. J., & Vismara, L. A. (2008). Evidence based comprehensive treatments for early autism. *Journal of Clinical Child and Adolescent Psychology, 37*(1), 8-38.

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Using these criteria, the empirical studies referenced below provide documentation for supporting pivotal response training as an evidence-based practice. The studies cited in this section document that this practice meets the NPDC on ASD's criteria for an evidence-based practice. This list is not exhaustive; other quality studies may exist that were not included.

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Jones, E. A., Carr, E. G., & Feeley, K. M. (2006). Multiple effects of joint attention intervention for children with autism. *Behavior Modification, 30*, 782-834.

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Koegel, R. L., Koegel, L. K. , Surrat, A. (1992). Language intervention and disruptive behavior in preschool children with autism. *Journal of Autism and Developmental disorders, 22*(2), 141-153

Stahmer, A. C. (1995). Teaching symbolic play skills to children with autism using pivotal response treatment. *Journal of Autism and Developmental Disorders, 25*, 123-141.

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Koegel, R. J. L., Camarate, S., Koegel, L. K., Bea-Tall, A., & Smith, A. E. (1998) Increasing speech intelligibility in children with autism. *Journal of Autism and Developmental Disorders, 28*(3), 241-251.

Koegel, R. L., Dyer, K., & Bell, L. K. (1987). The influence of child preferred activities on autistic children's speech behavior. *Journal of Applied Behavioral Analysis, 20*, 243-252.

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Steps for Implementation: Pivotal Response Training

Vismara, L.A., & Bogin, J. (2009). *Steps for implementation: Pivotal response training*. Sacramento, CA: The National Professional Development Center on Autism Spectrum Disorders, The M.I.N.D. Institute, The University of California at Davis School of Medicine.

Pivotal response training (PRT) is a method of systematically applying the scientific principles of applied behavior analysis (ABA) to teach learners with autism spectrum disorders (ASD) functional social-communicative and adaptive behaviors within a naturalistic teaching format. PRT builds on learner initiative and interests, and it is particularly effective for developing communication, language, play, and social behaviors. PRT was developed to create a more efficient and effective intervention by enhancing four pivotal learning variables: motivation, responding to multiple cues, self-management, and self-initiations. These skills are pivotal because they are the foundational skills upon which learners with ASD can make widespread and generalized improvements in many other areas. Steps for implementing each of these four pivotal skills are provided in this document.

Pivotal Behavior: Motivation

Step 1. Establishing Learner Attention

1. Teachers/practitioners establish learners' attention before providing learning opportunities.

For example, a practitioner could tap a learner on the shoulder or make eye contact before providing instructions

2. Once the learner is attending, teachers/practitioners use brief and clear instructions with learners with ASD.

Step 2. Using Shared Control

1. In a shared control interaction, teachers/practitioners decide which part of the routine they will complete for learners and which part learners will finish on their own.

When teachers/practitioners share choice with learners, learners are more motivated to interact with the materials.

EXAMPLE: If a child is learning to put on his/her coat before going outside to play, the teacher could share control during the teaching interaction by:

- getting the coat from the child's cubby (teacher),
- helping the child put his/her coat on (teacher),
- starting to zip the zipper (teacher and child), and
- having the child finish zipping the zipper before he/she can go outside (teacher and child).

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As learners become more proficient at using target skills during learning activities, teachers/practitioners shift more control and responsibility learners with ASD. Using the previous example, the teacher/practitioner may now:

- get the coat from the child's cubby (teacher),
- help the child get his/her coat on (teacher and child), and
- have the child start the zipper and zip it up completely (child).

The next time the learner is required to put his coat on, the teacher/practitioner may:

- get the coat from the child's cubby (teacher) and
- have the child put it on and zip it up independently (child).

Finally, the child would:

- get the coat by himself/herself (child),
- put the coat on (child), and
- zip the coat up without any assistance (child).

2. During teaching episodes, practitioners maintain a balance between adult- and learner-selected materials, topics, activities, and toys.

By sharing control of the activity and material selection, adults increase learners' motivation to participate and thus help them learn target behaviors and skills.

For example, if a teacher/practitioner has selected an activity to improve a learner's handwriting skills, the learner might exert shared control by deciding what type (e.g., pen, pencil, marker, crayon) and color utensil (e.g., red, green, blue) to use, what words to practice writing (e.g., preferred interest; student's name or names of friends, family), and what materials to write on (e.g., piece of colored paper, grid paper, index cards).

Step 3. Using Learner Choice

When using learner choice, learners are able to choose which materials or toys they want to play with. To use this procedure, teachers/practitioners complete a series of tasks.

1. Teachers/practitioners observe learners when they have free access to materials to identify their preferences for items, activities, and toys.

For example, a teacher/practitioner may notice that a young child with ASD plays with dinosaurs for most of free play. The dinosaurs could be used to increase motivation by allowing the child to play with the dinosaurs after completing a more difficult or less desirable task. Alternatively, teachers/practitioners may incorporate dinosaurs into classroom activities or during instruction (e.g., addition/subtraction with dinosaur figures, writing letters that state the name of a dinosaur).

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Similarly, a middle school teacher may observe a learner with ASD in her class who is particularly interested in race cars. The classroom teacher might increase motivation by incorporating car racing in the teaching program by using Nascar statistics in a math lesson.

2. Teachers/practitioners arrange the environment with learner-preferred, age-appropriate objects and activities.

For example, a teacher/practitioner may create an array of art materials for a learner who enjoys arts and crafts.

3. Teachers/practitioners allow learners to select materials, topics, and toys during teaching activities.

Allowing learners to choose preferred objects or activities is particularly important when teaching new skills. Using toys, items, and activities that individual learners with ASD prefer increases their motivation to participate and thus increases the likelihood that they will acquire target skills. For example, if a learner chooses to use uni-cubes instead of blocks, he may be more motivated to complete pattern making tasks.

4. Teachers/practitioners follow the learner's lead during interactions and learning activities.

For example, if a learner starts to knock down blocks instead of building with them, the teacher/practitioner can imitate the learner and knock the blocks down as well.

5. Teachers/practitioners incorporate choice-making opportunities into naturally occurring routines and activities throughout the day.

For example, a ball, a clear box of blocks, a shape sorter, and a bottle of bubbles can all be placed on a shelf in an area of the classroom. When the learner points to the bottle of bubbles and says "Bubbles," the teacher/practitioner says "Bubbles!" while taking them down and starting to open them with the learner. The learner had the choice of several different objects, each providing an equal opportunity to practice requesting and communication.

6. Teachers/practitioners provide a variety of activities and items for learners to choose from throughout the day to increase their motivation to participate in numerous learning activities.

Step 4. Varying Tasks and Responses

Task variation is essential for maintaining learners' interest and engagement. Teachers/practitioners should be alert to learners' behavioral cues (e.g., lack of attention, attempts to change activities) that signal that they are becoming bored and that it is time to change to a new item or activity.

When using task variation to teach target skills, teachers/practitioners complete a series of tasks.

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1. Teachers/practitioners vary tasks, materials, and activities to maintain learner interest and engagement.
2. Teachers/practitioners vary instructions and environmental conditions to foster learner response to a range of stimuli.

The following table provides some examples of behaviors that may indicate a need for a task variation.*

Behavior	Might indicate	You may want to try	Example
Repeatedly signing or verbalizing 'all done'	Boredom with task (too easy)	Interspersing newer, more challenging tasks with the familiar ones	A learner who used to love playing basketball has a chance to play baseball or another outdoor activity.
Vocally protesting	Frustration (task may be too difficult)	Returning to familiar or mastered tasks before trying another new task	A teacher accepts a request for "turn" while working on teaching "turn page"
Looking around, not focusing on the teaching materials	Distraction	Moving to a different location that may be less stimulating	Teaching is conducted in a quieter corner of the classroom or school (e.g., the library)
Getting up from seat or trying to leave the teaching area	Boredom with task (not interesting enough)	Finding toys or materials that are more interesting to the learner and are therefore more reinforcing	Providing a manipulative math activity with preferred objects rather than a math work sheet
Banging or throwing materials	Frustration or disinterest in item	Making sure that the teaching materials are not only interesting but are easy for the learner to access or use	A teacher provides a variety of books (factual, alphabet, story) within reach of a second grader with ASD during independent reading time.

* The above table represents a few possible functions of learners' behaviors. A true functional relationship cannot be determined without conducting a functional behavioral assessment. **Please refer to *Functional Behavioral Assessment (FBA): Steps for Implementation* (National Professional Development Center on ASD, 2008) for more information about FBA.**

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Step 5. Interspersing Acquisition and Maintenance Tasks

Teachers/practitioners can maximize motivation by interspersing maintenance trials with acquisition trials. In other words, teachers/practitioners make sure that acquisition trials (i.e., tasks that are new or currently being learned) are combined with maintenance tasks (i.e., previously mastered items).

1. Teachers/practitioners identify skills that are easy for individual learners (i.e., maintenance tasks) and ones that are more difficult (i.e., acquisition tasks).
2. Teachers/practitioners provide a mixture of easy and more difficult tasks so that learners can be successful at using a variety of skills.
3. To facilitate maintenance of previously learned target skills, teachers/practitioners provide:
 - a. short requests that are *easy* and within the learner's current repertoire of skills to complete *followed by*
 - b. one or two requests that are slightly more difficult for the learner to complete.

For example, a teacher/practitioner might ask a learner to point to familiar states on a map (a maintenance task) followed by identifying unfamiliar states or learning new concepts such as north, south, east, west, state capitals (acquisition task).

Step 6. Reinforcing Response Attempts

Reinforcement of response attempts is a consequence-based strategy in which all attempts that are clear approximations of the targeted response are rewarded. By reinforcing attempts teachers/practitioners not only directly reinforce the attempted behavior itself, but also increase the probability that learners will engage in future attempts and interactions as they experience more success and positive reinforcement.

1. Teachers/practitioners reinforce all verbal attempts at responding that are clear, unambiguous, and goal-directed.

For example, a nonverbal learner who is starting to make goal-directed vocalizations reaches for a book and says, "Oh." Although this is not the targeted response (i.e., "Book"), the teacher/practitioner immediately reinforces the attempt by saying "book" while handing the book to the learner, reinforcing the attempted vocalization, and modeling the target skill.

2. Teachers/practitioners provide reinforcement immediately after a goal-directed attempt.

For example, a teacher/practitioner immediately reinforces a learner who lifts his hand a few inches off the desk in an attempt to raise his hand during class.

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Immediately reinforcing attempts to communicate helps learners begin to understand that there is a direct relationship between their vocalizations and attaining something in return. **Please refer to *Positive Reinforcement: Steps for Implementation* (National Professional Development Center on ASD, 2008) for more information about reinforcement.**

Step 7. Using Natural and Direct Reinforcers

A natural reinforcer is defined as a reinforcer that has a direct relationship to the learner's behavior. For example, a learner may be interested in blowing bubbles. When he blows the bubbles, the bubbles are the natural reinforcer for this behavior.

1. Teachers/practitioners identify materials and activities that can be used to address a learner's goal during a teaching opportunity.

For example, a teacher or other practitioner could present a learner with a clear jar with a lid that contains a highly motivating object (e.g., bubbles, raisins). The learner will most likely try to open the jar and then look to the practitioner for help. After the learner uses the target phrase (e.g., "Help me"), the practitioner provides access to the reinforcer inside the jar.

2. Teachers/practitioners implement a learning task that is functionally and directly related to the learner's goal.

Another example would be of a learner whose target goal is to ask for a break instead of escaping demands by screaming. In this scenario, when the learner initiates the request by saying "break", the teacher immediately responds by allowing the learner to have a few minutes of free time while staying seated. However, if the teacher instructed the learner to complete another task before rewarding her initiated response, "Break," then this would not be an example of a directly related reinforcer.

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Pivotal Behavior: Responding to Multiple Cues

Step 1. Varying Stimuli and Increasing Cues

There are two ways to teach a learner with ASD to respond to multiple cues. Cues, also called properties or attributes, can be taught incrementally until learners respond to a more complex task.

1. Teachers/practitioners identify a variety of cues (properties or attributes) that are associated with the target skill and that can be used during a teaching activity.

For example, a teacher/practitioner may select cues such as colors, size, or shape to teach a receptive language task.

2. Teachers/practitioners provide at least two cues (e.g., overemphasizing feature of object, color, size, type of object, location of object) so that learners begin to use the target skill in response to more than one cue.

For example, the teacher/practitioner asks the learner to identify the big red car (instead of just the red car) so the learner is responding to both “big” and “red.”

3. Teachers/practitioners gradually increase the number of cues associated with a particular object, material, or toy so that the learner can respond to a variety of stimuli.

For example, the teacher then asks the learner for the big red car that is outside the toy garage. As the learner responds appropriately, the tasks get more complex and involve more cues. The goal is for the learner to respond to a complex request such as “a big red car with white wheels.”

Step 2. Scheduling the Reinforcement

Teachers/practitioners can also use different schedules of reinforcement to teach a learner with ASD to respond to multiple cues.

1. Teachers/practitioners identify numerous reinforcers that can be used to increase learners’ motivation to use the target skill.

For example, a teacher/practitioner might notice that a learner enjoys playing games on the computer or reading comic books.

2. Teachers/practitioners provide reinforcement for every attempt to use the target skill successfully (continuous schedule).

For example, the learner is allowed to look at a comic book every time he answers a question verbally.

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3. Teachers/practitioners move from a continuous schedule (i.e., every response is reinforced) to a variable ratio schedule of reinforcement (e.g., one out of every three responses is reinforced).

For example, in a continuous schedule of reinforcement, the teacher/practitioner gives the learner the comic book as a free time activity every time the learner initiates a request for “break.” With a variable ratio schedule of reinforcement, the learner is initially told to continue the lesson for a few more minutes before receiving the comic book. **Please refer to *Positive Reinforcement: Steps for Implementation* (National Professional Development Center on ASD, 2008) for more information about reinforcement.**

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Pivotal Behavior: Self-Management to Increase Positive Behaviors

The goal of self-management is to increase the independence of learners with ASD while decreasing their dependence on teachers/practitioners. To promote self-management, learners are taught to discriminate their target behaviors and then to record or monitor the occurrence (or absence) of them. Self-management is a strategy that is designed to take place in the absence of practitioners and provides learners with a set of procedures that promote autonomy and independence

Step 1. Preparing the Self-Management System

1. Teachers/practitioners clearly define the target behavior in terms that are specific, observable, and measurable and include a specific criterion for receiving reinforcement.

For example, the learner receives a break after staying quiet for two minutes. The criterion of “staying quiet” might be defined as remaining at his desk and looking at a book independently. Definitions of behaviors focus on what learners *should* do, as opposed to what they *should not* do.

EXAMPLE: Mark will complete 80% of the small group and independent activities/tasks in math.

2. Teachers/practitioners collect frequency and duration data before the self-management system is implemented to establish a baseline or current performance of learners’ behavior.

A teacher/practitioner may collect data on the number of times a learner calls out (i.e., frequency) or how long the calling out lasts (i.e., duration). The following tables provide examples of frequency and duration data collection sheets that can be used to document a learner’s current use of the target skill.

Example: Frequency Data Collection Sheet

Learner’s name <u>Mark</u>	
Interfering behavior <u>Calling out</u>	
Date _____	
Learner’s daily schedule	Number of times
AM recess	
Math	√√√√
Reading	√√√√
Gym	
Music	√√√√√√√√
PM recess	
Daily total	16

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Example: Duration Data Collection Sheet

Learner's name: _____ Mark _____	
Date: _____ February 14 _____	
Activity/Location: Math Class	
Interfering Behavior	# of minutes/seconds
Calling out	30 seconds
Calling out	10 seconds
Calling out	1 minute, 30 seconds
Calling out	2 minutes
Total duration of behavior	4 minutes, 10 seconds

- Teachers/practitioners select items and activities that learners enjoy as rewards. *If appropriate, learners should help identify rewards that they would like to earn.*

For example, a learner might choose a squishy ball from an array of sensory materials.

- Teachers/practitioners determine how often (i.e., interval) learners should record their own behavior (e.g., every five minutes) based upon the target behavior and ability of the learner to successfully monitor responses.
- Teachers/practitioners determine what monitoring device or system will be used to record successful behavior.

For example, learners can keep track of their behavior on a wrist counter and record the number of occurrences of the behavior every few minutes (e.g., intervals up to 5 minutes). Paper and pencil systems, with clear charts for tally marks or stickers, are other options.

Step 2. Teaching Self-Management

When teaching self-management to individual learners, the first task is to teach learners how to discriminate between desirable and undesirable behaviors. This should be very specific and in a format that learners understand. If learners do not understand what is and is not expected of them, they will not be able to manage their own behavior.

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1. Teachers/practitioners teach learners how to discriminate between desirable and undesirable behavior in language that learners understand.

For example, a teacher/practitioner may ask a learner to demonstrate the desirable behavior in a trial session and reinforce the learner for demonstrating the desired behavior. If the teacher observes the learner using an undesirable behavior, the teacher can ask the learner to describe the behavior that he just completed. Once the learner responds, the teacher/practitioner can ask the learner, "Was that behavior appropriate?" and can model the desirable behavior before having the learner demonstrate it again.

2. Teachers/practitioners teach learners to record whether their behavior was successful or unsuccessful across intervals.

For example, a teacher/practitioner might show learners how to make tally marks on a chart or how to give themselves tokens.

3. Teachers/practitioners provide learners with the specified reinforcer when the criterion has been reached.

For example, a learner is allowed to walk around the school when he has ten tokens.

Step 3. Creating Independence

After teaching a learner how to respond to and record their own behavior, teachers/practitioners then step back and provide support so that learners begin to independently use the system.

1. Teachers/practitioners gradually increase the amount of time learners self-manage the target behavior by increasing the length of time between intervals.

For example, a learner who is reinforced after one class period would be reinforced after two class periods instead.

2. Teachers/practitioners gradually fade the intensity and frequency of prompts as learners become more successful at managing their behavior.

For example, a teacher/practitioner may prompt the learner by pointing to a token instead of handing the token to them. **Please refer to *Prompting: Steps for Implementation* (National Professional Development Center on ASD, 2008) for more information about prompting.**

3. Teachers/practitioners increase the number of responses necessary for the reinforcer as learners become more successful at managing their behavior.

For example, the learner might have to respond appropriately three times before getting reinforced as opposed to getting reinforced for every appropriate response.

4. Teachers/practitioners gradually reduce their presence as learners become more successful at managing their behavior and/or administering their own reinforcer.

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5. Teachers/practitioners teach learners self-management skills in additional settings and with other practitioners and family members.

For example, the learner may need a break while on the blacktop and may raise his hand, but the physical education teacher may not understand the behavior and thus unintentionally ignore his request. In this case, the teacher/practitioner would teach the learner that he needs to approach the physical education teacher with a verbal request.

Module: Pivotal Response Training (PRT)

**Self-Management Strategies to Reduce Interfering Behaviors and
Teach Positive Replacement Behaviors**

Self-management of interfering behaviors (e.g., disruptive, repetitive, stereotypical) involves a second important phase after teachers and other practitioners have successfully implemented strategies that reduced and managed the interfering behavior. However, to successfully reduce the interfering behavior over the long term, learners must be involved in the process of developing a comprehensive intervention plan that is based on a Functional Behavioral Assessment. **Please refer to *Functional Behavioral Assessment (FBA): Steps for Implementation* (National Professional Development Center on ASD, 2008) for more information about FBA.**

Step 1. Defining the Behavior

1. Teachers/practitioners conduct functional behavioral assessments (FBA) to identify, describe, and determine the function of interfering behaviors for individual learners with ASD.

For example, a teacher/practitioner may find that a learner hits to escape demands.

Step 2. Preparing the Self-Management System

Once the interfering behaviors have been defined, teachers/practitioners identify potential replacement behaviors that can take the place of the interfering behaviors.

1. Teachers/practitioners assess potential replacement behaviors by determining:
 - a. the behavior the learner will use to attract the teacher's/practitioner's attention (e.g., raising his/her hand, verbally requesting),
 - b. when the learner needs to use the behavior (e.g., in what settings, with which teachers),
 - c. whether the learner can independently use the behavior (e.g., can the learner physically complete the behavior?), and
 - d. how the behavior will be measured (e.g., with tokens, tally marks, free time minutes).
2. Teachers/practitioners select an appropriate replacement behavior to take the place of the interfering behavior.

EXAMPLE: Susan will ask for a break or remain seated until the teacher finishes speaking.

3. Teachers/practitioners clearly define the replacement behavior in terms that are specific, observable, and measurable.

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EXAMPLE: Susan will raise her hand, wait until she is called on, say “Can I have a break please?” and wait until the teacher gives her permission to take a break.

4. Teachers/practitioners identify a variety of meaningful rewards (some large and some small) for learners’ use of the replacement behaviors (e.g., turns at the computer, access to preferred toys or games).
5. Teachers/practitioners identify the overall goal and explain it to the learner with ASD in a developmentally- and age-appropriate way.

Using the above example, the teacher/practitioner might explain to Susan that the goal is for her to use her words to request a break rather than yelling.

6. Teachers/practitioners provide learners with many opportunities to experience success with using the replacement behavior (e.g., throughout the day in different classrooms, with different teachers).

Step 3. Teaching Self-Management

Once the system has been prepared, learners are taught to self-manage the new behavior.

1. Teachers/practitioners teach learners how to discriminate between desirable and undesirable behavior in language that learners understand.

For example, the teacher/practitioner might tell a learner that he is “doing a good job” or is “acting like a big boy” when he uses the replacement behavior correctly.

2. Teachers/practitioners teach learners to record whether their behavior was successful or unsuccessful across intervals.

For example, a teacher/practitioner might set up a scenario in which the learner can use the replacement behavior and then prompt the learner to correctly record his own behavior.

3. Teachers/practitioners provide the learner with the specified reward when the criterion has been reached (e.g., access to toys, games, or other preferred activities).

Step 4. Creating Independence

1. Teachers/practitioners gradually increase the amount of time learners self-manage the target behavior by increasing the length of time between intervals.

As learners become more successful at using the replacement behavior, the length of time between intervals is increased. For example, progress monitoring data may indicate that the learner may be able to tolerate two class periods or check off 20 boxes before needing a break, and thus his self-management program is adjusted accordingly (e.g., rewarded after two class periods instead of one).

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2. Teachers/practitioners gradually fade the intensity and frequency of prompts as learners become more successful at managing their behavior.

For example, a teacher/practitioner may use a light touch when prompting a learner rather than using hand-over-hand assistance. **Please refer to *Least-to-Most Prompting: Steps for Implementation* (National Professional Development Center on ASD, 2008) for more information about prompting.**

3. Teachers/practitioners increase the number of responses necessary to receive the reinforcer as learners become more successful at managing their behavior (e.g., the learner must remain engaged for longer periods of time).
4. Teachers/practitioners gradually reduce their presence as learners become more successful at managing their behavior and/or administering their own reinforcer.

Step 5. Generalizing to Other Settings

1. Teachers/practitioners teach learners self-management skills in a variety of settings and with other practitioners and family members.

Implementing self-management systems in a variety of settings and with numerous individuals promotes generalization and maintenance of skills. For example, a learner may learn to monitor her own behavior in English class, at home, and at the library.

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Pivotal Behavior: Promoting Self-Initiations Using Peer-Mediated Strategies

Step 1. Implementing Peer-Mediated Strategies

1. Teachers/practitioners select typically developing peers who are motivated to participate in peer-mediated activities.
2. Teachers/practitioners teach typically developing peers how to:
 - a. secure the learner's attention before initiating a social exchange (i.e. saying 'hi'),
 - b. provide the learner with ASD choices among activities and materials,
 - c. vary materials according to the learner's preference,
 - d. provide frequent and varied models for appropriate play and social skills,
 - e. verbally reinforce learner attempts at social interactions and/or functional, appropriate play (e.g., telling the learner that they made a great building),
 - f. encourage conversation with the learner with ASD by withholding desired objects until an appropriate verbal response is given,
 - g. ask questions or encourage conversation that is relevant to the routine or activity (e.g., asking the learner what she/he did over the weekend),
 - h. take turns during play and other social interactions,
 - i. describe what they are doing during activities, including comments to share the social experience (i.e. "Isn't this fun, we're playing with trucks"), and
 - j. describe objects as clearly as they can during routines and activities and encourage learners with ASD to do the same ("Look how shiny this ball is").

Please refer to *Peer-Mediated Instruction and Intervention (PMII): Steps for Implementation* (National Professional Development Center on ASD, 2008) for more information about peer-mediated interventions.

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Pivotal Behavior: Promoting Self-Initiations Using Learner-Initiated Strategies

Learner-initiated strategies also can be used to teach children and youth with ASD skills such as question-asking, sharing materials, and participating in conversations.

Step 1. Teaching Social Initiations

1. Teachers/practitioners teach learners with ASD:
 - a. ways to initiate social interactions with others by sharing materials (e.g., “Can I play with you?” while handing a peer some blocks or asking, “Can I have some blocks?”),
 - b. how to organize play activities (e.g., “You build the road, I’ll build the bridge;” handing a peer a baseball glove while keeping the bat),
 - c. how to take turns choosing activities (e.g., choice board with peer, assigning a peer buddy and alternating turns choosing activities and/or materials), and
 - d. how to be persistent when trying to initiate interactions with others (e.g., using different attention-getting and repair strategies if initial efforts are rejected).
2. Teachers/practitioners provide learners with opportunities to practice skills before using them with peers.

Step 2. Teaching Question-Asking: “What’s That?”

1. Teachers/practitioners place highly preferred objects, items, materials in an opaque bag.
2. Teachers/practitioners prompt the learner to ask “What’s that?”
3. Teachers/practitioners show learners what is inside the bag and give them immediate access to the item (e.g., learner does not have to make an additional request for item).
4. Teachers/practitioners gradually fade prompts as learners begin to spontaneously ask the question “What’s that?”
5. Teachers/practitioners gradually replace preferred items in the bag with less preferred and unfamiliar items (e.g., a blank notebook, one wooden block).
6. Teachers/practitioners gradually fade the use of the opaque bag when learners spontaneously ask the question, “What’s that?”
7. Teachers/practitioners encourage generalization by placing items in other objects or locations (e.g., boxes, in hands, behind back).

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Step 3. Teaching Question-Asking: “What Happened?” and “What’s Happening?”

There are several ways to teach learners with ASD how to ask questions. One way is to use pop-up books as a cue for asking questions.

1. Teachers/practitioners select pop-up books that are related to learners’ interests.
2. Teachers/practitioners prompt learners to either ask, “What’s happening?” or “What happened?” after they pull the tab for the pop-up pictures.
3. Once learners ask questions, teachers/practitioners model the correct verb ending (“dog is jumping” or “dog jumped”) and give learners a turn to pull the tab.

Step 4. Teaching Language, Communication, and Social Skills Using Naturalistic Techniques

Naturalistic techniques have been found to be highly effective in providing opportunities for learners with ASD to socially initiate. There are several ways to teach learners using naturalistic strategies:

1. Teachers/practitioners imitate learners’ actions during interactions, play, and other activities (e.g., jump when the learner jumps).
2. Teachers/practitioners provide the learner with the appropriate item after it is requested (e.g., give learners juice after they say “juice”).
3. Teachers/practitioners provide a task demand then wait for the learner to respond independently before providing a prompt.

For example, the teacher/practitioner asks learners what they would like to play with and then waits before prompting them with a picture or model.

4. Teachers/practitioners place preferred items out of reach to encourage independent requesting by the learner with ASD (e.g., preferred toys are kept on the top shelf so learners must request them).

Module: Pivotal Response Training (PRT)

Implementation Checklist for PRT

Vismara, L. A. (2009). *Implementation checklist for PRT*. Sacramento, CA: The National Professional Development Center on Autism Spectrum Disorders, M.I.N.D Institute, University of California at Davis Medical School.

Instructions: The Implementation Checklist includes procedures for implementing each pivotal behavior: motivation, responding to multiple cues, self-management, and self initiations. Please complete all of the requested information including the site and state, individual being observed/interviewed, and the learner’s initials. To assure that a practice is being implemented as intended, an observation is *always* preferable. This may not always be possible. Thus, items may be scored based on observations with the implementer, discussions and/or record review as appropriate. Within the table, record a 2 (implemented), 1 (partially implemented), 0 (did not implement), or NA (not applicable) next to each step observed to indicate to what extent the step was implemented/addressed during your observation. Use the last page of the checklist to record the target skill, your comments, whether others were present, and plans for next steps for each observation.

Site: _____ State: _____

Individual(s) Observed: _____ Learner’s Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

PIVOTAL BEHAVIOR: MOTIVATION									
<i>Intervention (Steps 1 – 7)</i>									
	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer’s Initials								
Step 1. Establishing Learner Attention		Score**							
1. Establish learners’ attention before providing learning opportunities.									
2. Once the learner is attending, use brief and clear instructions with learners with ASD.									
Step 2. Using Shared Control									
1. In a shared control interaction, decide which part of the routine they will complete for the learner and which parts learners will finish independently.									
2. During teaching episodes, maintain a balance between adult- and learner-selected materials, topics, activities, and toys.									

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 3. Using Learner Choice		Score**							
1. Observe learners when they have free access to materials to identify their preferences for items, activities, and toys.									
2. Arrange the environment with learner-preferred, age-appropriate objects and activities.									
3. Allow learners to select materials, topics, and toys during teaching activities.									
4. Follow the learner's lead during interactions and learning activities.									
5. Incorporate choice-making opportunities into naturally occurring routines and activities throughout the day.									
6. Provide a variety of activities and items for learners to choose from throughout the day to increase their motivation to participate in numerous learning activities.									
Step 4. Varying Tasks									
1. Vary tasks, materials, and activities to maintain learner interest and engagement.									
2. Vary instructions and environmental conditions to foster learner response to a range of stimuli.									

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 5. Interspersing Acquisition and Maintenance Tasks	Score**								
1. Identify skills that are easy for learners and skills that are more difficult.									
2. Provide a mixture of easy and more difficult tasks so that learners can be successful at using a variety of skills.									
3. To facilitate maintenance of previously learned target skills, provide:									
a. short requests that are <u>easy</u> and within the learner's repertoire of skills to complete followed by									
b. one or two requests that are more difficult for the learner to complete.									
Step 6. Reinforcing Response Attempts									
1. Reinforce all verbal attempts at responding that are clear, unambiguous, and goal-directed.									
2. Provide reinforcement immediately after a goal-directed attempt.									
Step 7. Using Natural and Direct Reinforcers									
1. Identify materials and activities that can be used to address a learner's goal during a teaching opportunity.									
2. Implement a learning task that is functionally and directly related to a learner's goal.									

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Site: _____ State: _____

Individual(s) Observed: _____ Learner’s Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

PIVOTAL BEHAVIOR: RESPONDING TO MULTIPLE CUES									
<i>Planning and Intervention (Steps 1 – 2)</i>									
	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer’s Initials								
Step 1. Varying Stimuli and Increasing Cues	Score**								
1. Identify a variety of cues that are associated with the target skill and that can be used during a teaching activity.									
2. Provide at least two cues (e.g., overemphasizing feature of object, color, size, type of object, location of object) so that learners begin to use the target skill in response to more than one cue.									
3. Gradually increase the number of cues associated with a particular object, material, or toy so that learners are able to respond to a variety of stimuli.									

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 2. Scheduling the Reinforcement									
1. Identify numerous reinforcers that can be used to increase learners' motivation to use the target skill.									
2. Provide reinforcement for every attempt to use the target skill successfully (continuous schedule).									
3. Move from a continuous schedule to a variable ratio schedule of reinforcement (e.g., one out of every three responses).									

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Module: Pivotal Response Training (PRT)

Implementation Checklist for PRT

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Site: _____ State: _____

Individual(s) Observed: _____ Learner's Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

PIVOTAL BEHAVIOR: SELF-MANAGEMENT TO INCREASE POSITIVE BEHAVIORS									
	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
<i>Planning (Step 1)</i>									
Step 1. Preparing the Self-Management System	Score**								
1. Clearly define the target behavior in terms that are specific, observable, and measurable and include a specific criterion for receiving reinforcement.									
2. Collect frequency and duration data before the self-management system is implemented to establish a baseline or current performance of learners' behavior.									
3. Select items and activities that learners enjoy as rewards. If appropriate, learners should help identify rewards that they would like to earn.									

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
4. Determine how often (i.e., interval) learners should record their own behavior.									
5. Determine what monitoring device or system will be used to record successful behavior.									
<i>Intervention (Steps 2 – 3)</i>									
Step 2. Teaching Self-Management	Score**								
1. Teach learners how to discriminate between desirable and undesirable behavior in language that learners understand.									
2. Teach learners to record whether their behavior was successful or unsuccessful across intervals.									
3. Provide learners with the specified reinforcer when the criterion has been reached.									
Step 3. Creating Independence									
1. Gradually increase the amount of time learners self-manage the target behavior by increasing the length of time between intervals.									
2. Gradually fade intensity and frequency of prompts as learners become more successful at managing their behavior.									
3. Increase the number of responses necessary for the reinforcer as learners become more successful at managing their behavior.									

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
4. Gradually reduce their presence as learners become more successful at managing their behavior and/or administering their own reinforcer.									
5. Teach learners self-management skills in additional settings and with other practitioners and family members.									

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Site: _____ State: _____

Individual(s) Observed: _____ Learner’s Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

PIVOTAL BEHAVIOR: SELF-MANAGEMENT TO REDUCE INTERFERING BEHAVIOR AND TEACH POSITIVE REPLACEMENT BEHAVIORS										
	Observation	1	2	3	4	5	6	7	8	
	Date									
	Observer’s Initials									
<i>Planning (Steps 1 – 2)</i>										
Step 1. Defining the Behavior					Score**					
1. Conduct a functional behavior assessment to identify, describe, and determine the function of interfering behaviors for individual learners with ASD.										
Step 2. Preparing the Self-Management System										
1. Assess potential replacement behaviors by determining:										
a. the behavior the learner will use to attract the teacher’s attention,										
b. when he learner needs to use the behavior,										

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
c. whether the learner can independently use the behavior, and									
d. how the behavior will be measured.									
2. Select an appropriate replacement behavior to take the place of the interfering behavior.									
3. Clearly define the replacement behavior in terms that are specific, observable, and measurable.									
4. Identify a variety of meaningful rewards (some large and some small) for learners' use of replacement behaviors.									
5. Identify the overall goal and explain it to the learner with ASD in a developmentally- and age-appropriate way.									
6. Provide the learner with many opportunities to experience success with using the replacement behavior.									
Intervention (Steps 3 – 5)									
Step 3. Teaching Self-Management									
1. Teach learners how to discriminate between desirable and undesirable behavior in language that learners understand.									
2. Teach learners to record whether their behavior was successful or unsuccessful across intervals.									
3. Provide the learner with the specified reward when the criterion has been reached.									
Step 4. Creating Independence									
1. Gradually increase the amount of time learners self-manage the target behavior by increasing the length of time between intervals.									

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 4. Creating Independence (cont.)	Score**								
2. Gradually fade intensity and frequency of prompts as learners become more successful at managing their behavior.									
3. Increase the number of responses necessary to receive the reinforcer as learners become more successful at managing their behavior.									
4. Gradually reduce their presence as learners become more successful at managing their behavior and/or administering their own reinforcer.									
Step 5. Generalizing to Other Settings									
1. Teach learners self-management skills in a variety of settings and with other practitioners and family members.									

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Site: _____ State: _____

Individual(s) Observed: _____ Learner's Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

PIVOTAL BEHAVIOR: PROMOTING SELF-INITIATIONS USING PEER-MEDIATED STRATEGIES									
	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
<i>Intervention (Step 1)</i>									
Step 1. Implementing Peer-Mediated Strategies	Score**								
1. Select typically developing peers who are compliant and motivated to participate in peer-mediated activities.									
2. Teach typically developing peers how to:									
a. secure the learner's attention before initiating a social exchange;									
b. provide the learner with ASD choices among activities and materials;									
c. vary materials according to the learner's preference;									

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Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 1. Implementing Peer-Mediated Strategies (cont.)	Score**								
d. secure the learner's attention before initiating a social exchange;									
e. provide the learner with ASD choices among activities and materials;									
f. vary materials according to the learner's preference;									
g. provide frequent and varied models for appropriate play and social skills;									
h. verbally reinforce learner attempts at social interaction and/or functional, appropriate play;									
i. encourage conversation with the learner with ASD by withholding desired objects until an appropriate verbal response is given;									
j. ask questions or encourage conversation that are relevant to the routine or activity;									
k. take turns during play and other social interactions;									
l. describe what they are doing during activities, including comments to share the social experience; and/or									
m. describe objects as clearly as they can during routines and activities and encourage learners with ASD to do the same.									

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Site: _____ State: _____

Individual(s) Observed: _____ Learner's Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

PIVOTAL BEHAVIOR: PROMOTING SELF-INITIATIONS USING LEARNER-INITIATED STRATEGIES										
	Observation	1	2	3	4	5	6	7	8	
	Date									
	Observer's Initials									
<i>Intervention (Steps 1 – 4)</i>										
Step 1. Teaching Social Initiations					Score**					
1. Teach the learner with ASD:										
a. ways to initiate social interactions with others by sharing materials (e.g., handing peer a block, and asking "Can I have some blocks?").										
b. how to organize play activities (e.g., "You build the road, I'll build the bridge," handing a peer a baseball glove while keeping the bat).										

**Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable

Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 1. Teaching Social Initiations (cont.)	Score**								
c. how to take turns choosing activities (e.g., choice board with peer, assigning a peer buddy and alternating turns choosing activities and/or materials).									
d. how to be persistent when trying to initiate with others (e.g., using different attention-getting and repair strategies if initial efforts are rejected).									
2. Provide learners with opportunities to practice skills before using them with peers.									
Step 2. Teaching Question-Asking: "What's That?"									
1. Place highly preferred objects, items, materials in an opaque bag.									
2. Prompt the learner with ASD to ask, "What's that?"									
3. Show learners what is inside the bag and give them immediate access to the item (i.e., learner does not have to make an additional request for item.)									
4. Gradually fade prompts as learners with ASD spontaneously ask the question, "What's that?"									
5. Gradually replace preferred items in the bag with less preferred and unfamiliar items.									
6. Gradually fade the use of the opaque bag when learners spontaneously ask the question, "What's that?"									
7. Encourage generalization by placing items in other objects or locations (e.g., boxes, in hands).									

**Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable

Module: Pivotal Response Training (PRT)

	Observation	1	2	3	4	5	6	7	8
	Date								
	Observer's Initials								
Step 3. Teaching Question-Asking: “What Happened?” and “What’s Happening?”									
1. Select pop-up books that are related to learners’ interests.									
2. Prompt learners to either ask, “What’s happening?” or “What happened?” after they pull the tab for the pop-up pictures.									
3. Once learners ask a question, model the correct verb ending (“dog is jumping” or “dog jumped”) and give learners a turn to pull the tab.									
Step 4. Teaching Language, Communication, and Social Skills Using Naturalistic Techniques									
1. Imitate learners’ actions during interactions, play, and other activities.									
2. Provide the learner with the appropriate item after it is requested.									
3. Provide a task demand, then wait for the learner to respond independently before providing a prompt.									
4. Place preferred items out of reach to encourage independent requesting by the learner with ASD.									

****Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable**

Module: Pivotal Response Training (PRT)

Date	Observer Initials	Target Skill/Behavior, Comments, and Plans for Next Steps
Date	Observer Initials	Target Skill/Behavior, Comments, and Plans for Next Steps
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Module: Pivotal Response Training (PRT)

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Module: Pivotal Response Training

PRT Interval Coding Data Collection Sheet

Vismara, L. (2009). *PRT interval coding data collection sheet*. Unpublished document.

Learner: _____ Date: _____ Person collecting data: _____

Codes for Acquisition of Skills:
 + = consistent, correct performance
 - = incorrect/inconsistent performance

Domain: _____

Target skill: _____

Teaching Steps	Intervals (15 minutes)				*Summary Score
	1	2	3	4	

**Most frequently observed code (mode) across the four intervals is the summary score.*

*** Highlighted row represents current teaching step.*

Domain: _____

Target skill: _____

Teaching Steps	Intervals (15 minutes)				*Summary Score
	1	2	3	4	

**Most frequently observed code (mode) across the four intervals is the summary score.*

*** Highlighted row represents current teaching step.*

Module: Pivotal Response Training

Example: PRT Interval Coding Data Collection Sheet

Vismara, L. (2009). *Example: PRT interval coding data collection sheet*. Unpublished document.

Learner: Michael

Date: 2/15/09

Person collecting data: Teacher

Codes for Acquisition of Skills:
+ = consistent, correct performance
- = incorrect/inconsistent performance

Domain: Expressive language (Middle School)

Target skill: Raises hand independently to attain teacher's attention 5 or more times

Teaching Steps	Intervals (15 minutes)				*Summary Score
	1	2	3	4	
Hand-over-hand (HOH) prompt to raise hand 1-2 times	+	-	+	+	+
Partial physical prompt 1-2 times	+	+	+	+	+
**Verbal/gestural prompt 1-2 times	+	-	+	+	+
Independently 1-2 times					
Partial physical prompt 3-5 times					
Verbal/gestural prompt 3-5 times					
Independently 3-5 times					
Independently 5+ times					

**Most frequently observed code (mode) across the four intervals is the summary score.*

*** Highlighted row represents current teaching step.*

Domain: Comprehension (High school)

Target skill: Answers a variety of common questions about scientific subject matter

Teaching Steps	Intervals (15 minutes)				*Summary Score
	1	2	3	4	
Listens to paragraph describing the sun and points to the pictures of a star (with no distracter) when asked, "Is the sun a planet or a star?"	+	+	+	-	+
Points to a picture of the star in a field of three other space related pictures (planet, comet)	+	+	+	+	+
Verbally responds ("star") with a verbal prompt	+	+	+	+	+
Verbally responds ("star") with a partial verbal prompt	-	+	+	+	+
**Verbally responds ("star") when asked, "Is the sun a planet or a star?"	+	-	+	+	+
Verbally responds ("star") when given the phrase, "The sun is a"					
Verbally responds ("star") when asked, "What is the sun?"					

**Most frequently observed code (mode) across the four intervals is the summary score.*

*** Highlighted row represents current teaching step.*

Module: Pivotal Response Training

PRT Frequency Data Sheet

Bogin, J. (2009). *PRT frequency data sheet*. Unpublished document.

Learner's name: _____ Person collecting data: _____

Date: _____ Target behavior: _____

Activity/setting	Frequency count
Daily total	

Date: _____ Target behavior: _____

Activity/setting	Frequency count
Daily total	

Date: _____ Target behavior: _____

Activity/setting	Frequency count
Daily total	

Module: Pivotal Response Training

Example: PRT Frequency Data Sheet

Bogin, J. (2009). *Example: PRT frequency data sheet*. Unpublished document.

Learner's name: _____ Person collecting data: _____

Date: January 15, 2009

Target behavior: Calling out

Activity/setting	Frequency count
Bus to school	√√√√√√
AM recess	N/A
Math	√√
Reading	√√
Gym	N/A
Music	√√√√
PM recess	N/A
Daily total	14 instances of calling out

Date: January 17, 2009

Target behavior: Hitting

Activity/setting	Frequency count
Bus to school	√√√
AM recess	√
Math	√√
Reading	√√√√√√
Gym	√√
Music	√√√√
PM recess	√√√√√√
Daily total	24 instances of hitting

Date: January 18, 2009

Target behavior: Out of seat

Activity/setting	Frequency count
Bus to school	√
AM recess	N/A
Math	√√
Reading	√
Gym	N/A
Music	√√
PM recess	N/A
Daily total	6 instances of out of seat behavior

Module: Pivotal Response Training

PRT Duration Data Sheet

Bogin, J. (2009). *PRT duration data sheet*. Unpublished document.

Learner's name: _____

Date: _____

Person collecting data: _____

Setting # 1:

Interfering behavior	# of minutes/seconds
Total duration of interfering behavior	

Setting # 2:

Interfering behavior	# of minutes/seconds
Total duration of interfering behavior	

Setting # 3:

Interfering behavior	# of minutes/seconds
Total duration of interfering behavior	

Module: Pivotal Response Training

Example: PRT Duration Data Sheet

Bogin, J. (2009). *Example: PRT duration data sheet*. Unpublished document.

Learner's name: _____

Date: September 18, 2008

Person collecting data: _____

Setting # 1: Morning recess

Interfering behavior	# of minutes/seconds
Yelling	30 seconds
Pushing	1 minute, 30 seconds
Pushing	1 minute
Kicking	2 minutes
Total duration of interfering behavior	5 minutes

Setting # 2: Free writing

Interfering behavior	# of minutes/seconds
Calling out	30 seconds
Hitting	10 seconds
Slapping table	20 seconds
Tipping back chair	1 minute, 30 seconds
Total duration of interfering behavior	2 minutes, 30 seconds

Setting # 3: Afternoon Break

Interfering behavior	# of minutes/seconds
Pushing	1 minute
Banging chair	30 seconds
Total duration of interfering behaviors	