Missouri's educational leader in autism support

PROJECT ACCESS INFORMATION SHEET

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Pivotal Response Treatment® (PRT):

What is it? Pivotal Response Treatment®, http://www.autismprthelp.com/, is a copy-righted, research-based intervention for individuals with (Autistic Disorder) Autism Spectrum Disorders. Drs. Robert and Lynn Koegel departed from 'Classic DTT' methodology (developed by Dr. O. Ivar Lovaas) which targets individual behaviors one at a time, and adapted the focus on teaching easily generalizable and impactful, "pivotal" skills that are known to improve the child's lifetime outcomes more broadly. PRT® methodology is from the Koegel Autism Center at the University of California, Santa Barbara, http://education.ucsb.edu/autism. A naturalistic intervention model, PRT® requires family involvement as essential to treatment. Four designated pivotal skills that effect the child's overall development are treated and tracked; motivation for social communication, self-initiation, self-management, and responsiveness to multiple cues. The website reports, PRT® is one of the few interventions for autism that is both **comprehensive** (as listed by the National Research Council; of the National Academy of Sciences) and **empirically supported**. It is recognized as effective practice by the National Professional Development Center on Autism Spectrum Disorders and the National Standards Project.

PRT is an effective, established, evidence-based, focused intervention included in the *Missouri Autism Guidelines Initiative (MAGI) ASD: Guide to Evidence-based Interventions*. Like DTT *(see the fact sheet on DTT here),* PRT is generally based on basic Behaviorist theoretical principles that link behaviors with reinforcement.

When should it be used? PRT® is used to teach children to initiate or seek out and respond to naturally occurring teachable moments, based on self-directed motivators and naturally occurring consequences to reinforce or discourage continuation of behaviors. It has been found effective for improving skills in Communication and Behavior as well as areas of Play and Social interaction. PRT® has not been researched or concluded effective for Academic skills or Transitions. In addition, the age range supported by evidence for effective use of PRT® is from birth to 22 years.

PRT follows the same 5 Steps of DTT (*see FACT sheet*) without a highly structured setting

1. Antecedent = what happens BEFORE the target behavior, child-directed in context
2. Prompt = adult supports to ensure a correct/successful response
3. Response = child's behavior (hopefully the skill being taught, with good prompts)
4. Consequence = what happens AFTER the behavior, natural consequence to reinforce

5. Inter-trial interval = brief period of time delay to further designate separate discrete trials
* Underlying feature = training should involve intensive engagement in natural settings throughout the day in both the home and school environments targeting the 4 key pivotal behaviors through intrinsic and meaningful reinforcement relevant to the context.
SAMPLE SCENERIO: Natasha is a preschool student who has just begun attending a public school Early Childhood Special Education class four half-days a week in small town Missouri. She has limited expression of five to ten echoed words as well as learned gestures for "up" and "bye-bye", but otherwise just grabs or reaches for things she wants. Teachers also report she has difficulty following the class routine and directives. They say she appears to be noncompliant, refusing to complete what are considered simple tasks like picking up her toys, putting trash in the waste basket, and sitting down when asked, but also acknowledge that she doesn't appear to be interested in the other children or teacher-directed activities. Let's consider how to apply the five intervention steps above in a naturalistic manner to focus on two PRT skill areas for example, increasing Natasha's motivation to participate with the class and interact with her peers as well as initiate communication with peers or adults that is not echoed.

1. **Antecedent**: First decide on the focus of intervention, in this case we want to teach Natasha in can be motivating to engage with her peers and class and to initiate communication with peers or adults. Parents as school staff will agree to set up teachable moments in the class and at home that encourage her to engage with others purposefully, so we will all need to know what Natasha really likes (*check out the Reinforcement Fact and Information Sheets to learn more*) and to encourage engagement base class activities on her preferences and to encourage initiation with others, make them available in her environment, visible but just out of reach perhaps. The true antecedent occurs when Natasha moves into the preferred group activity or reaches for the desired item, remember this is child-directed NOT adult-directed as with the directive in DTT. Say Natasha loves to hear and act out the Itsy Bitsy Spider song. So multiple opportunities are set up in her natural environments to engage in and initiate communicate to request or discuss that song. For example, a book rendition, puppets or other manipulatives that go with it, and a recording of the song are all made available at group circle-time and/or in centers assigned to several students together, and at home.
2. **Prompts**: Next adults (or peers) in Natasha's environment provide verbal, physical, visual, whatever prompts accepted by Natasha, to achieve Natasha's desired outcome. Remember receiving her request or child-directed want is itself the reinforcement! So family, teachers, etc. are facilitators to help her gain what is motivating. Prompts should be given from most prompting needed and quickly faded to least prompting for her to always be successful and stay motivated. For example, Natasha wants to hear the Itsy Bitsy Spider song, when adults see her approach the recording
3. **Response/Attempt**: This is simply the child's behavior or attempt to obtain or interact with her reinforcer. It is intended for this response to produce a positive outcome for Natasha, so ample supports need to be in place to help prompt Natasha to interact or request the Isty Bitsy Spider song successfully or with the acceptable behaviors. At times, especially at first, her attempt may be the undesired behavior or there may be no

attempt. If so, additional prompts and environmental facilitators to encourage the likelihood of the preferred attempt should be implemented.

4. **Consequence**: (for both correct and incorrect attempts) We are used to thinking of a consequence as negative or a punishment, but in this case the consequence just means whatever occurs after the child's attempt. Unlike DTT, this attempt may achieve the desired outcome or it may not, whatever is the most likely natural consequence of the behavior she used to initiate or request. A consequence of Reinforcement is **immediately** given after a correct attempt and for EVERY correct attempt even when fully prompted so the child knows THAT behavior is what earned the reinforcement. IF the child's attempt is Incorrect, then no reinforcement is given or the behavior may be ignored and additional prompts or enticing activity presented to encourage an additional natural attempt by Natasha to get her song, without punishment.
5. **Inter-trial Interval**: Rather than discrete structured one-to-one trials with an informational pause between each as with classic DTT, PRT relies on the adult gathering data to be mindful of each individual opportunity for data collection without overtly interrupting the flow of the more naturalistic interaction. Again, the facilitating adult needs to be clear in his/her mind when each attempt began and how each ended. The concept of Mass trial teaching is still relevant for PRT, but is much less overt, rather set up in naturalistic opportunities. As a result, trials can continue throughout the day without the need to sustain the child's attention or sustain interest in any one reinforcer. In our example, Natasha guides the number of trial opportunities by how often she demonstrates interest in something. Teachers and family can encourage more opportunities by making more of what she loves available to be requested or engaged with. It's a win-win for everyone! Natasha is surrounded by things that are fun and motivating to her and adults have built in many teachable moments without adversity.

More examples can be found on the PRT website @ **http://www.autismprthelp.com/**

You can also watch the Project ACCESS informational video on You Tube: https://www.youtube.com/watch?v=MejrblUOiro and check out the PRT FACT Sheet (….)

See more detail from Dr. Lynn Koegel on YouTube at https://www.youtube.com/watch?v=5n9vlBtbji8

For a comprehensive and free training module on using PRT visit the list of free trainings developed by (OCALI) @ www.autisminternetmodules.org. On the OCALI site you will be required to register, but the online training modules are free.

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Additional research articles and references:

- Koegel L. K, Koegel R. L, Harrower J. K, Carter C. M. Pivotal response intervention I: Overview of Approach. Journal of the Association for Persons with Severe Disabilities. 1999;24:174–185.
- Lovaas O. I. Behavioral treatment and normal educational and intellectual functioning in young autistic children. Journal of Consulting & Clinical Psychology. 1987;55:3–9.
- Sundberg M. L, Partington J. W. The need for both discrete trial and natural environment language training for children with autism. In: Ghezzi P. M, Williams W. L, Carr J. E, editors. Autism: Behavior analytic perspectives. Reno, NV: Context Press; 1999. pp. 139–156. (Eds.)