



## **Joint Engagement, Joint Attention and The Power of Play**

Katie Wells, M.S.Ed.

**Autism Specialist, Colorado Autism Education Network  
Exceptional Student Services**

As Early Childhood educators we understand the importance of children learning through purposeful play and creating functional learning opportunities throughout their day. One area of development that can be over looked is whether or not the student has the skills to learn from play. Joint engagement and joint attention are developmental milestones that are often delayed or missing in students with Autism. For young children with Autism it is fundamental that they are engaged and able to participate in all learning opportunities.

Joint engagement is the ability for one person to engage with another person or object. Once you have established that a student has joint engagement the next stage of development is establishing joint attention.

Joint attention is shifting of eye gaze between an object and a communication partner for the purpose of requesting or shared enjoyment. Typically joint attention emerges in infancy and develops into more complex forms of social sharing. Joint attention includes alternating eye-gaze, and initiating and responding to gestures (pointing, showing). In order to teach this important developmental step there are several skills to be aware of:

- Orienting and attending to a social partner
- Shifting gaze between people and objects
- Sharing emotional states with another person
- Following the gaze and point of another person
- Being able to draw another person's attention to objects or events for the purpose of sharing experiences (Woods & Wetherby, 2008, p.181).

These skills are necessary for developing relationships and having quality interactions with peers and adults. Quality opportunities will lead to positive play experiences and more skills will be acquired through purposeful play.

### Reference

Woods, J. J., & Wetherby, A. M. (2008). Early identification of and intervention for infants and toddlers who are at risk for autism spectrum disorder. *Language, Speech, and Hearing Services in Schools*, vol. 34, p. 180-193.

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**Upcoming Training Opportunities:**

**Tri-State Autism Spectrum Disorder 2015-2016 Webinar Series**

(All webinars are offered two times on the day scheduled: 3:00-3:45 pm and 4:30-5:15 p

[For additional information and registration click here](#)

**Final Training of Four Park Series: Programming for Middle and High School Students with Autism Spectrum Disorder**

- *Developing and Implementing Visual Supports for Social, Communication and Behavioral Skills* (Presented by Kate Loving, M.S.Ed., BCBA) April 6

**Four Part Series: Autism and Early Childhood**

- *Joint Engagement and Joint Attention Strategies* (Presented by Katie Wells, M.S.Ed.) April 13
- *Preparing for Purposeful Play* (Presented by Lori Chambers, M.S., CCC-SLP) April 20
- *Teaching Object Based Play* (Presented by Teri McGill, M.S.Ed.) April 27
- *Incorporating Play into the Natural Environment* (Presented by Lindy McDaniel, M.S.Ed.) April 28



**Tips from the Corner:**

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**Prompting Towards Independence Part 2: Time Delay and Simultaneous Prompting**

Pam Sharping, Ed.L., BCBA

When teaching students new skills, teachers need instructional strategies that are effective and efficient. Efficiency can be defined as learning that occurs in the least amount of time, with fewer errors, with less amount of effort, and that generalizes and maintains (Jannike et al., 2014). Two response prompt procedures that have been shown to effectively and efficiently teach discrete (e.g., a small unit of behavior) and chained skills (e.g., a chain of behaviors that make up a complex skill) to students with various disabilities and ages are Time Delay and Simultaneous Prompting. Both procedures are considered errorless learning strategies, meaning that students learn new skills with a low number or zero errors.

Time delay, first described by Touchette (1971), is a method for transferring stimulus control by systematically inserting an interval of time between the target stimulus (cue) and the controlling stimulus (i.e., a controlling prompt). There are two types of time delay procedures, Constant Time Delay and Progressive Time Delay.

**How and When to Use Constant Time Delay (CTD) or Progressive Time Delay (PTD) Procedure:**

1. Define the target skill that you want to teach. If it is a chained behavior (e.g., dressing, purchasing, vocational skill, etc.), you will need a task analysis.
2. Choose a controlling prompt. Use the least intrusive prompt needed to teach the skill.
3. Initially, both CTD and PTD procedures start with a 0-second time delay after the presentation of the discriminative stimulus (cue) and the prompt. For example, immediately after the teacher says, "What is this?" while showing a picture of car, the instructor gives the student the correct answer "car".
4. After a pre-specified number of trials (e.g., a session typically comprising of 10 trials when using discrete trial training), the prompt is delayed.
5. When using CTD the prompt delay remains the same during all teaching sessions (e.g., 3-5 seconds). When using PTD the prompt delay is gradual and systematic. For example, the teacher would first wait 1 second, then 2 seconds, gradually extending the time delay in 1-second intervals. The time delay can be extended after a specific number of presentations, after each session, after a specific number of sessions, or after meeting a performance criterion.

*Example: Delay by session for CTD and PTD*

Session	CTD Delay	PTD Delay
1	0 sec	0 sec
2	3 sec	1 sec
3	3 sec	2 sec
4	3 sec	3 sec
5 and remaining sessions	3 sec	4 sec

6. To avoid errors, tell the student to wait if they need help answering the question correctly. It is better to help the student, then to allow them to practice errors. If the child has difficulty waiting for a prompt, PTD may be a better choice as a prompting strategy because of the gradual fade of prompts.
7. Reinforce correct responses only.
8. Record data to monitor your progress and to decide when to fade out time delayed prompts.

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Prompt Level	Teacher Behavior	Learner Behavior and Consequence	Learner Behavior and Consequence	Learner Behavior and Consequence
Prompted with 0-second delay. (No opportunity for independence.)	"What is this? Car." while showing picture of car.	Correct Response: Repeats teacher's response, "Car" (provide reinforcer)	Incorrect Response: Teacher corrects error and says "car" (no reinforcement)	No Response: ignore and provide no reinforcement

**Example: Trial during an initial session of CTD or PTD to teach naming of objects**

**Example: Trial during a subsequent session of CTD or PTD to teach naming of objects**

Prompt Level	Teacher Behavior	Learner Behavior and Consequence	Learner Behavior and Consequence	Learner Behavior and Consequence
Independent	"What is this? Car." while showing picture of car. (Waits specified time; e.g., 3 seconds)	Unprompted Correct: "Car" (provide reinforcer)	Unprompted Incorrect: "Train" (remind to wait for a prompt if s/he doesn't know the answer)	No Response (provide prompt)
Prompted	"What is this? Car." while showing picture of car. (Waits specified time; e.g., 3 seconds)	Prompted Correct: "Car" (provide reinforcer)	Prompted Incorrect: "Train" (no reinforcement)	No Response (ignore and provide no reinforcement)

Simultaneous Prompting is a modification of the time delay procedure. Like CTD and PTD, a controlling prompt is utilized. The controlling prompt is *always* delivered at a 0-second delay, or immediately after the target stimulus (cue) is delivered to prevent or reduce errors from occurring. "How does the teacher know the students are learning anything?" To answer that question the teacher conducts test trials or probes immediately before each instructional session to test mastery of targeted skills previously taught (Alberto and Troutman, 2013). For example, a teacher might present a picture and ask, "What is this?" but provide no prompts. This probe session tests whether or not the student has acquired the material. Instruction ends when the learner reaches a criterion level (e.g., 100% correct for 3 consecutive days) during probe sessions.

The primary advantage of simultaneous prompting, compared to time delay procedures, is that a learner doesn't need to have the prerequisite skill of waiting for a prompt if he/she cannot independently emit the behavior. It's also a less complicated procedure for teachers, paraprofessionals, or peer tutors to use due to fewer response variations (e.g., unprompted corrects and unprompted incorrects are not possible) and fewer prompt variations (e.g., no need to vary prompt intrusiveness or delay).

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### References

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- Alberto, P. A. & Troutman, A. C. (2013). *Applied behavior analysis for teachers (9<sup>th</sup> ed)*. Upper Saddle River, NJ: Pearson Education, Inc.
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- Neitzel, J., & Wolery, M. (2009). Steps for implementation: Least-to-most prompts. Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorders, Frank Porter Graham Child Development Institute, The University of North Carolina.
- Response Prompting. (2014). In *Wikipedia*. Retrieved March 15, 2016, from <http://en.wikipedia.org/wiki/Psychology>

### Recommended Videos

- Errorless Learning: <https://youtu.be/PMtucgT6VQI>
- Time Delay: <https://youtu.be/XKbboCNmAzk>
- Simultaneous Delay: <https://youtu.be/JEWhd3-E-Ao>