



## ***Using Constant Time Delay to Teach Recreation and Leisure Skills***

### **What is the evidence base?**

- This is a research-based practice for **students with disabilities** based on four methodologically sound single-subject studies across 18 participants with disabilities.
- This is a research-based practice for **students with intellectual disabilities** based on four methodologically sound single-subject studies across 16 participants with intellectual disability.

### **Where is the best place to find out how to do this practice?**

The best place to find out how to implement constant time delay to teach recreation and leisure skills through the following research to practice lesson plan starter:

- [Using Constant Time Delay to Teach Leisure Game Skills \(Wall, Gast, & Royston, 1999\)](#)

### **With whom was it implemented?**

- Students with
  - **Intellectual Disability (4 studies, n=16)**
  - Autism (1 study, n=2)
- Ages ranged from 16 – 23 years of age.
- Males (n= 14), females (n= 4)
- Ethnicity
  - None reported (n=18)

### **What is the practice?**

Constant time delay is a variation of time delay, a prompting procedure that uses variations in the time intervals between presentation of the natural stimulus and the response prompt. Time delay transfers stimulus control from a prompt to the natural stimulus by delaying the presentation of the prompt following the presentation of the natural stimulus. Constant time delay is implemented by presenting several trials using a 0-second delay between the

presentation of the natural stimulus and the response prompt. The trials that follow the simultaneous prompt condition apply a fixed time delay (e.g., 3 seconds or 5 seconds; Cooper, Heron, & Heward, 2007).

In the studies used to establish the evidence base for using CTD to teach recreation and leisure skills, CTD included using:

- Four second constant time delay paired with total task chaining was used to teach
  - Beanbag toss, indoor putting, checkers, Jenga™, UNO™, using a walkman, and playing croquet (Wall, Gast, & Royston, 1999)
- Four second constant time delay in combination with verbal description and physical assistance was used to teach
  - Bowling, throwing a baseball, and putting a golf ball (Zhang, Gast, Horvat, & Dattilo, 1995)
- Three second constant time delay to teach
  - How to program and use an iPod touch as an electronic photographic activity schedule to assist them in completing different exercises during their workout time (Uphold, Douglas, & Loseke, 2016)
- Five second constant time delay to teach
  - Solitaire card games (Seward et al. 2014)

### **Where has it been implemented?**

- Classroom (2 studies)
- Gymnasium (1 study)
- Recreation facility on a community college campus (1 study)

### **How does this practice relate to Common Core Standards?**

- Comprehension and Collaboration (Anchor Standards for Speaking and Listening, Grades 9-12)
  - Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively
- Knowledge of Language (Language, Grade 8)
  - Use knowledge of language and its conventions when writing, speaking, reading, or listening

### **References used to establish this evidence base:**

Seward, J., Schuster, J. W., Ault, M. J., Collins, B. C., & Hall, M. (2014). Comparing simultaneous prompting and constant time delay to teach leisure skills to students with moderate intellectual disability. *Education and Training in Autism and Developmental Disabilities, 49*, 381-395.

Uphold, N. M., Douglas, K. H., & Loseke, D. L. (2016). Effects of using an iPod app to manage recreation tasks. *Career Development and Transition for Exceptional Individuals, 39*, 88-98.

Wall, M. E., Gast, D. L., & Royston, P. A. (1999). Leisure skills instruction for adolescents with severe or profound developmental disabilities. *Journal of Developmental and Physical Disabilities, 11*, 193-219.

Zhang, J., Gast, D., Horvat, M., & Dattilo, J. (1995). The effectiveness of a constant time delay procedure on teaching lifetime sport skills to adolescents with severe to profound intellectual disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 30*, 51-64.

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