**Using Constant Time Delay to Teach Banking Skills**

**What is the evidence base?**

- This is a research-based practice for **students with moderate intellectual disabilities** based on two methodologically sound single-subject studies across 7 participants with disabilities conducted by two different research teams and across two different geographical areas.

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

The best place to find out how to implement CTD is through the following research to practice lesson plan starters:

- **Using CTD to teach banking**
  - **Cashing Checks and Using ATM (McDonnell & Ferguson, 1989)**

**With who was it implemented?**

- Students with
  - **Moderate intellectual disability (2 studies, n=7)**
- Ages ranged from 14 - 20
- **Males (n=2), females (n=1), not specified (n=4)**
- **Ethnicity**
  - **None reported (n=7)**

**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 banking skills, CTD included using a:

- Three second constant time delay (Branham, Collins, Schuster, & Kleinert, 1999; McDonnell & Ferguson)

In the studies used to establish the evidence base for using CTD to teach banking skills included using a:

- Three second time delay was used in combination with video modeling, community-based instruction, and simulation to teach
  - Cashing a check (Branham, Collins, Schuster, & Kleinert, 1999)
- Three second time delay was used to teach
  - Writing a check
  - Using an ATM (McDonnell & Ferguson, 1989)

**Where has it been implemented?**

- Self-contained classroom and community (1 study)
- Community bank (1 study)

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

- Understand ratio concepts and use ratio reasoning to solve problems (Ratios and Proportional Relationships, Grade 6)
  - Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations
- Comprehension and Collaboration (Speaking and Listening, Grade 8)
  - Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally
- Knowledge of Language (Language, Grade 8)
  - Use knowledge of language and its conventions when writing, speaking, reading, or listening

**How does this practice relate to the Common Career Technical Core?**

- Demonstrate mathematics knowledge and skills required to pursue the full range of post-secondary education and career opportunities (Academic Foundations)
  - Identify whole numbers, decimals, and fractions
Demonstrate use of relational expressions such as: equal to, not equal, greater than, less than, etc.

Demonstrate knowledge of basic arithmetic operations such as: addition, subtraction, multiplication, and division

References used to establish this evidence base:
