



Using Forward Chaining to Teach Functional Life Skills

What is the level of evidence?

- This is a Research-Based Practice for **students with disabilities** based on two methodologically sound single subject studies across 7 participants.
- This is a Promising Practice for **students with severe intellectual disabilities** based on one methodologically sound single case study with 3 participants with severe intellectual disabilities.

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

- Using forward chaining to teach using a washing machine and a laundry-mat soap dispenser
 - [Laundromat Skills \(McDonnell & McFarland, 1988\)](#)

With who was it implemented?

- Students with
 - Moderate to severe intellectual disability (1 study, n= 4)
 - Severe intellectual disability (1 study, n= 3)
- Ages ranged from 14 to 19
- Males (n=4), females (n=3)
- Ethnicity
 - None reported (n= 7)

What is the practice?

Behaviors identified in a forward chaining task analysis are taught in their naturally occurring order. Reinforcement is delivered when the predetermined criterion for the first behavior in the sequence is achieved then the next step in the task analysis is taught (Cooper, Heron, & Heward, 2007).

In the studies used to establish the evidence base for using forward chaining to teach functional life skills, skills that were taught included:

- Food preparation (Horsfall & Maggs, 1986)
- Home maintenance skills (McDonnell & McFarland, 1988)

How has the practice been implemented?

- Forward chaining, combined with a system of least to most prompting was used to teach students to boil an egg, make cheese toast, and cook TV dinners (Horsfall & Maggs, 1986)
- Forward chaining was more efficient than concurrent chaining to teach operating a washing machine and a laundry-mat soap dispenser (McDonnell & McFarland, 1988)

Where has it been implemented?

- Community (1 study)
- Separate classroom (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 8)
 - 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

How does this practice relate to the State's Career Cluster Initiative: Essential Knowledge and Skills?

- Employ emergency procedures as necessary to provide aid in workplace accidents (Safety, Health, and Environmental)
 - Use safety equipment as necessary

References used to establish this evidence base:

Horsfall, D. & Maggs, A. (1986). Cooking skills instruction with severely multiply handicapped adolescents. *Australia and New Zealand Journal of Developmental Disabilities*, 12, 177-186.

McDonnell, J. & McFarland, S. (1988). A comparison of forward and concurrent chaining strategies in teaching laundromat skills to students with severe handicaps. *Research in Developmental Disabilities, 9*, 177-194.

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