Using a System of Least-to-Most Prompts to Teach Food Preparation and Cooking Skills

What is the level of evidence?

This is a Research-Based Practice based on three acceptable quality single subject studies.

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

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

With who was it implemented?

- Students with
  - Multiple Disabilities (1 study, n=3)
  - Moderate Intellectual Disability (1 study, n=3)
  - Severe Intellectual Disability (1 study, n=4)
- Ages ranged from 11 to 22
- Males (n=5), females (n=5)
- Ethnicity
  - None reported (n= 10)

What is the practice?

A system of least-to-most prompts is a method used to transfer stimulus control from response prompts to the natural stimulus whenever the participant does not respond to the natural stimulus or makes an incorrect response. Least-to-most prompts begin with the participant having the opportunity to perform the response with the least amount of
assistance on each trial. Greater degrees of assistance are provided with each successive trial without a correct response (Cooper, Heron, & Heward, 2007).

In the studies used to establish the evidence base for using a system of least-to-most prompts to teach cooking skills, least-to-most prompting included:

- verbal gestural cue, partial assistance/physical prompts, and full physical assistance (Horsfall & Maggs, 1986)
- naturally occurring, nonspecific verbal, specific verbal, gesture and verbal, partial physical and verbal, total physical and verbal prompting in combination with total task chaining (Steege, Wacker, & McMahon, 1987)
- increasing prompting in combination with other instructional practices (Mechling, Gast, & Fields, 2008)

**How has the practice been implemented?**

- Least-to-most prompting that consisted of verbal gestural cue, partial assistance/physical prompts, and full physical assistance was used to teach cooking skills (i.e., boiling an egg, making cheese toast and cooking a TV dinner [Horsfall & Maggs, 1986])
- Least–to-most prompting in combination with computer-assisted instruction, pre-training, antecedent cue regulation, and self management was used to teach cooking skills (Mechling, Gast, & Fields, 2008)
- Least -to most prompting (i.e., naturally occurring, nonspecific verbal, specific verbal, gesture and verbal, partial physical and verbal, total physical and verbal prompting) in combination with total task chaining was used to teach making toast and popcorn (Steege, Wacker, & McMahon, 1987)

**Where has it been implemented?**

- Separate school (2 studies)
- Apartment (1 study)

**How does this practice relate to Indicator 13?**

- Indicator 13 Checklist Item #3: Teaching cooking skills may reflect results of transition assessment information
- Indicator 13 Checklist Item # 4: Teaching cooking skills may be a transition service designated in an IEP that will enable a student to meet his or her postsecondary independent living goal(s)
- Indicator 13 Checklist Item #6: Teaching cooking skills may be an annual IEP goal that supports a student’s independent living goal(s)
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)
  o Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities
  o Understand the concept of a unit rate \( a/b \) associated with a ratio \( a:b \) with \( b \neq 0 \), and use rate language in the context of a ratio relationship. For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is \( 3/4 \) cup of flour for each cup of sugar.” “We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger.”

- Comprehension and Collaboration (Speaking and Listening, Grade 8)
  o Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally

- Knowledge of Language (Language, Grade 8)
  o Use knowledge of language and its conventions when writing, speaking, reading, or listening

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

- Demonstrate language arts knowledge and skills required to pursue the full range of post-secondary education and career opportunities (Academic Foundations)
  o Comprehend key elements of oral and written information

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

References used to establish this evidence base:

