Discrete Trial Teaching ("DTT")

Sam Quarm
“It is important to recognize that DTT in itself is not a good or bad method, and like any teaching method, it may be implemented on a continuum from very well to very poorly (Baer, 2005)"
Discrete Trial Teaching

(Steege, Mace, Perry, and Longenecker, 2007)

- DTT is a well established intensive intervention based on the science of ABA for teaching skills to children with autism and related developmental disorders

- Targeted skills include pre-academic, receptive, expressive, cognitive, social and communication
DTT Technique

- It is one-to-one instruction with student seated across from a teacher or an instructor
- Breaking skills down into components parts
- Teaching each skill component until mastery is attained
- Intensive teaching sessions and lots of repetition
DTT Technique, cont.

- Using prompts as needed and fading prompts as appropriate
- Using reinforcement strategies to increase skills
- It involves four components:
  - presentation of discriminative stimulus (sd)
  - occurrence or approximation of the targeted response
  - instructional prompt or cue
  - delivery of reinforcing consequence, and a specified inter-trial interval
Example of a DTT

- Teaching a student to identify objects:
  (a) The teacher and student sit in chairs at a table facing one another
  (b) The teacher engages the child’s attention
  (c) The teacher says “Touch the______
  (d) Social and edible reinforcement is provided following a correct response
  (e) If the child does not offer the correct response in 3 to 5 seconds, the teacher offers an instructional prompt
  (f) Teacher records data (inter-trial break)
Advantages of DTT

- Allows for numerous training trials
- Easy for many different staff to use
- Good way to develop specific language skills
- Targeted responses are known and easily identified
- Data collection is relatively straightforward
- Ease of use in a classroom setting
Disadvantages of DTT

- Requires additional procedures to promote generalization
- It is not applicable to teaching sequential or chained responses
- Prompts to respond often not present in natural environment
- Nonfunctional nature of the training may generate escape and avoidance behaviors
Common Mistakes Using DTT

(Baer, 2005)

- Not varying the content and timing of trials when acquisition is slow
- Providing inadequate positive reinforcement for correct responses
- Using unnecessarily harsh consequences when the child does not respond or responds incorrectly
Misapplications of DTT

- Students react negatively to frequently misdirected and incorrect implementation of DTT
- Low levels of escape-motivated behaviors (e.g.: turning away from the instructor, pushing materials way to signal a break) during initial trials
- More extreme escape-motivated behaviors (self-injury, aggression) during subsequent trials, leading to termination of session
- Cessation serves to negatively reinforce the interfering behaviors
Some history...
(Ghezzi, 2007)

- Psychologist Ivar Lovaas developed the first well-known model of early behavioral intervention for children with autism in the 1960s and 1970s
- Trained in behavioral analysis while studying postdoc with Sidney Bijou in 1958
- Psychology professor at the University of California at Los Angeles (UCLA)
Some history...

(Ghezzi, 2007)

- He applied the science of behavior analysis to the treatment of people with autism in a new way, which he now calls the Lovaas Model of ABA (www.lovaas.com)

- In 1987 study, Lovaas and Koegel found out that nearly half (47%) of the children who received 40 hours per week of ABA therapy were eventually able to complete normal first grade classes and achieved normal Intellectual and educational functioning by the end of the first grade
Some history...

(Gheezi, 2007)

- None of the children who received the therapy only 10 hours of per week were able to do the same
- Other researchers such as Psychologist James Mulick, Ph.D of Ohio State University have partially replicated Lovaas’s success and has been credited with ABA therapy – Early Intensive Behavioral Intervention (EIBI)
Some history...

(Ghezzi, 2007)

- It is conceivable that earlier histories of the subject influenced Ivar Lovaas's development:
  - In 1950s and 1960s Sidney Bijou at University of Washington inspired the use of discrete trial teaching with children with autism by the Wisconsin General Test Apparatus (WGTA)
  - WGTA was being used at the time to study visual discrimination learning with young children in labs
  - Check WGTA out...
Wisconsin General Test Apparatus

- Forward Opaque Screen
- One-Way Vision Screen
- Stimulus Tray
Alternative to DTT

- Errorless Learning
- Incidental teaching
- Modified Incidental Teaching Sessions
DTT Video Clip

- Stay tuned for the video clip, please.

- Thank you!