

What is Discrete Trial Instruction or DTI?

DTI is an instructional approach to teaching that has proven very effective for learners who need repeated trials as well as reinforcement of the learned behavior before it effectively enters into their repertoire. A good DTI program includes different types of prompting, task analysis, reinforcement, and modeling. DTI is a strategy found under the Applied Behavior Analysis umbrella. It has an extensive and strong base of empirical support in ABA literature. Discrete trial has a clear beginning and a clear end and is based upon three major components: the antecedent (the directive or request), the behavior (the learner's response), and the consequence (the reinforcement). One thing to remember is that DTI is just one component of a comprehensive program for children and adolescents with ASD.

What can I teach using a DTI program?

DTI programs are highly individualized! The program should be detailed specifically to the student's needs and the program development should be a collaborative effort from all members of the student's team, especially their family. Deciding what to teach is also a team responsibility. DTI can be used to develop many skills, including cognitive, communication, play, social, vocational, and self-help skills. There are resources (see Additional Resources) available that have prewritten programs but it may still be necessary to individualize the curriculum to meet the individual's needs. Furthermore, experiential training is crucial for individuals implementing a program to ensure more than just a working knowledge of the instructional strategy.

Getting Started

Prior to beginning DTI you will want to identify what is reinforcing for the student. Remember, reinforcers are not reinforcing unless selected **by** the student. Select reinforcers that are small. Edibles are particularly easy to start a program with because the individual can eat the reinforcer and be prepared for the next trial in a short period of time. If you have a individual with a feeding issue, use a toy that has a time limit embedded or an activity that is adult directed so you will not have to pry the object or toy away from the individual. Another important component of DTI is a designated work area that is quiet and distraction-free. Initially, you may select to have the individual in a small environment that is away from the classroom or the family's main living areas. However, the goal is to work on training in the functional or natural environment. You should also select a table that is clean and free of extraneous materials.

DTI Steps

1. The individual should:
 - be sitting in a chair, facing the appropriate direction of the task
 - be attending to you (eye contact if possible)
 - have hands in lap
2. Place the reinforcers on your lap or beside you so they can be quickly accessed
3. Get the individual's attention

DTI Steps, continued.....

4. Give a short, clear instruction once (antecedent)
5. Wait 2-5 seconds (depending on the individual) to allow the individual to respond
6. If the individual responds correctly, give immediate reinforcement
7. If the individual does not respond or begins to respond incorrectly, immediately use prompting as needed to get the individual to respond correctly, then reinforce the prompted correct response
8. Move to the next instruction, repeating steps 3-7
9. Provide repetitions of each skill and record the data

An important component of every DTI program is a strong data collection system. If you are setting up a program then you have to set up a data collection system—the two go hand in hand. Most data collection for DTI programs is event recording. Remember, all skills that are taught should be designed with the functional or natural environment in mind. Initially, the program may seem somewhat rigid; however, as you begin programming for generalization the program should become more flexible. The individual should be able to perform the new skills with different people, in multiple settings, in different situations, and with alternate or different instruction or cue.

Lastly, all instructional programs should be written to include the desired behavior, the direction that will be given, prompts, prompt fading, and a criteria for when the new skill is considered mastered, and a plan for generalization. Once a skill has been considered mastered it should go into maintenance, where you revisit the skill periodically to make sure that it is still in the individual's repertoire.

Skill Example-Motoric Imitation

1. "Do this", instructor touches head with right hand (antecedent)
2. Once the instruction is presented, immediately and manually physically prompt the correct response by taking the individual's right hand with your right hand and assisting him in touching his head (behavior).
3. Reinforce the correct response (consequence).

Additional Resources

Books

Lovaas, I. (2003). *Teaching Individuals with Developmental Delays*. Pro-Ed, Inc.: Austin, TX

Maurice, C., Green, G., & Luce, S. (1996). *Behavioral Intervention for Young Children with Autism*. Pro-Ed, Inc.: Austin, TX

Leaf, R., McEachin, J., & Harsh, M. (1999). *A Work in Progress*. DRL Brooks, Inc.: New York, NY

Websites

www.polyxo.com: Teaching Children with Autism

www.ku.edu/~ican/modules/behavior/dti/lecture01.html: University of Kansas ICAN DTI Module

www.lovaas.com: Official site for O. Ivar Lovaas



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