

Evidence-Based Practices for Students with ASD

**Florida Atlantic University
Center for Autism & Related Disabilities
(CARD)**

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Overview

- Educating yourself
- Some notable practices
- Additional treatment options
- Where to go now

The Internet, News Show, & Magazines

The Good, the Bad, and the
Absurd

Be an Educated Consumer

- What to look for
- Where to look
- Questions that must be asked

Some Notable Practices

Applied Behavior Analysis

- Science of human behavior
- Research methodology
- Few principles, many procedures

Discrete Trial Teaching (DTT)

- Based on the work of Skinner, Lovaas, McEachin, Smith and colleagues
- Experimental research published in peer-reviewed journals
- Best know set of ABA procedures among families

DTT

- Highly structured environment
 - ◆ teaching procedures
 - ◆ curriculum

DTT

- Instruction
- Prompt (if needed)
- Child's response
- Consequence
- Inter-trial interval

DTT

- <http://www.youtube.com/watch?v=pAntLmXpKhg>

DTT

- A variety of skills taught, including:
 - ◆ Learning readiness
 - ◆ Imitation
 - ◆ Receptive language
 - ◆ Expressive language
 - ◆ Play skills
 - ◆ Social skills
 - ◆ Academic skills

Verbal Behavior (VB)

- Based on the work of Skinner, Michael, Partington, Sundberg and colleagues
- Experimental research published in peer reviewed journals

VB

- Begins with Natural Environment Teaching
- Later it can resemble DTT

VB

- View video

VB

- Errorless learning is emphasized
- Focus on teaching the functions of verbal behaviors
- Also, focus on imitation, play, social, independence, academic, etc.

Task Analysis and Chaining

- Task analysis (TA): breaking skills down into component parts
- Multiple studies published in a variety of peer reviewed journals

Sample Task Analysis

- Washing hands
 - ◆ Turns on water
 - ◆ Gets soap
 - ◆ Rubs soapy hands under water
 - ◆ Rinses soap off hands
 - ◆ Turns off water
 - ◆ Gets paper towel
 - ◆ Dry off hands
 - ◆ Throws away paper towel

Sample Task Analysis

- Pours a glass of milk:
 - ◆ Opens cabinet
 - ◆ Gets cup
 - ◆ Placed cup on counter
 - ◆ Opens refrigerator
 - ◆ Gets milk
 - ◆ Opens milk container
 - ◆ Pours milk into cup
 - ◆ Replaces cap on container
 - ◆ Returns milk
 - ◆ Etc...

Chaining

- Teaching forward
- Teaching backward
- Teaching all at once

Chaining

- May require prompting
- Reinforcement is delivered, and eventually faded

Functional Behavior Assessment (FBA)

- Assessment procedure to identify the reasons behaviors occur
- Multiple studies published in a variety of peer reviewed journals
- Authors include:
 - ◆ Iwata and colleagues
 - ◆ Horner
 - ◆ Dunlap
 - ◆ Carr
 - ◆ Etc.

FBA

- Review of records
- Interview caregivers/teachers
- Direct observation of the behavior
- Hypothesis testing

Behavior Intervention Plan (BIP)

- Procedures based on the results from the FBA, including:
 - ◆ Prevention (*emphasized*)
 - ◆ Development of replacement behaviors
 - ◆ Consequences
 - ◆ Emergency procedures

Picture Exchange Communication System (PECS)

- Picture communication system
- Several studies published in a variety of peer-reviewed journals
- Authors include:
 - ◆ Bondy and Frost
 - ◆ Tincani

PECS

- Students learn to request & comment by giving others pictures or icons
- Six phases of development

PECS

- [View video](#)

Additional Evidence-Based Practices

- Visual systems
 - ◆ (Schopler, Mesibov, Krantz, McClanahan, MacDuff)
- Incident teaching
 - ◆ (McGee and Colleagues)
- Direct instruction
 - ◆ (Englemann, Becker and Colleagues)
- Precision Teaching
 - ◆ (Lindsey)

Caveat emptor...

Case studies and Testimonials

Treatments with Insufficient Research

- Chelation therapy
- Hyperbaric medicine
- Mega-vitamin
- Diets
- Equine therapy
- Dolphin therapy
- Sensory integration therapy

Where to go now

- Public schools
- Private and charter schools
- Local therapists
- Medwaiver program (**service limitations**)
- www.coe.fau.edu/card
 - ◆ Click on “Directory of Service Providers” link