

## Behavioral Strategies to Support Academic Success

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Room to Grow



## Educational Goals

- Academic instruction is the primary purpose in any school-based program
- Not always consistent with the needs of students with autism and other severe disabilities



## Learning can be hard!



- Language deficits
- Social challenges
- Learning differences
- Cognitive differences
- Skill deficits
- Motivation
- Executive functioning



## Particular Challenges in ASD

- Difficulty with abstract reasoning, concepts, symbols
- Reluctance to repeat or review learned material
- Reduced or impaired social reinforcers for academic achievement
- Tendency towards perfectionism
- Difficulty finding high-interest or relatable topics
- Deficient executive functioning skills

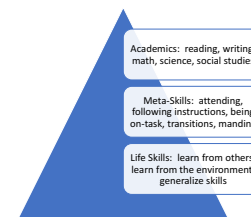


## ABA for academics???

- Global perspective
- Combine social, language, and other goals with academics
- Motivation for participation
- Adaptations for easier learning
- Strategies to promote success



## Goals!



## Plan Ahead

WHERE WILL  
YOU BE  
IN 5 YEARS?

- Student's and family's goals should be clarified
  - If a student is planning to go to college, this must be a consideration from early on
- Academics might not initially be a big priority, but can become more important as language, social, and behavioral goals are met



## Curriculum Choices

- Modification of existing grade-level curriculum
- Special curriculum specifically designed for special education students

### Differentiation

*Curriculum should be individualized to meet specific student needs  
Consider age and level of functioning*



## Levels of Supports in Schools

- Self-contained classes
- Co-teaching/collaborative classes
- General education classes with supports
- Accommodations and modifications
- Home services



## 1:1 Aides

- Can be helpful in managing supports
- Should NOT replace or repeat the teacher
- Should be able to move in and out of the student's experience
- Should not be obvious exactly who the 1:1 is there for
- Hopefully will be faded



## Kinds of Support

### Institutional supports

- Modifications
  - Alterations to curriculum
  - Alterations to assessments
- Accommodations
  - Extended time
  - Copy of class notes
  - Tests/directions read
  - Scribe or keyboarding

### Behavioral supports

- Antecedent and setting event interventions
- Teaching strategies
- Consequence interventions



## Consequence Interventions

- Rewards and incentives
- Response cost and punishment

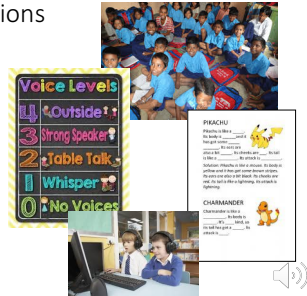


- Difficulty finding and maintaining motivators
- Distraction to student and/or peers
- Frustration if not available or taken away
- May distract from natural and social reinforcers



## Antecedent Interventions

- Adjust physical environment
- Visual/auditory cues
- Incorporate preferences
- Pre-teaching/priming

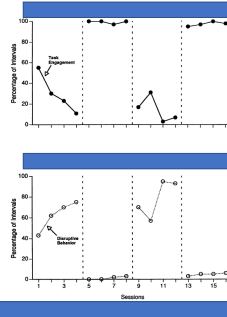


## Adjust Requirements

- Thoughtfully define goals and desired outcomes
- Match assessments to those goals and outcomes



From Dunlap et al., 1994



From Dunlap et al., 1994

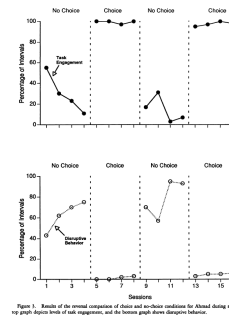


Figure 1. Results of the annual comparison of choice and no-choice conditions for Alford during every session. The top graph depicts levels of task engagement, and the bottom graph shows disruptive behavior.

## Choice



Programmed choice opportunities can improve outcomes and reduce problem behavior

## How to incorporate choice

- Reinforcers
- Materials
- Partners (or partner vs. solo work)
- Type of assessment
- Order of tasks/subjects
- Type of task

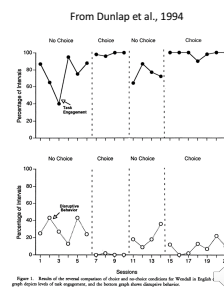


Figure 1. Results of the annual comparison of choice and no-choice conditions for Whitted in English. The top graph depicts levels of task engagement, and the bottom graph shows disruptive behavior.

## Critical questions about choice

- Should we separate choice from preference?
  - Do you make choices of things you don't prefer?
- Is there something about choice that is meaningful separate and apart from accessing what you want in the moment?
- Is choice always a good thing?



From Riviere et al., 2011

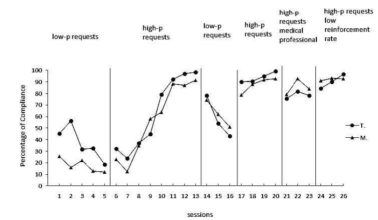
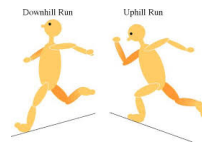


Figure 1. Percentage of compliance for both participants (T = Thomas and M = Michel) observed in baseline, the high-p request sequence with parent, the high-p request sequence with the medical professional, and the high-p request sequence with low rate of reinforcement. The two first sessions in baseline were obtained with the medical professional.



## Momentum/Task Interspersal

Starting to earn reinforcement increases responding in that same context



## Factors affecting momentum

- Quality of reinforcers
- Inter-trial intervals
- Similarity of high-p and low-p responses
- Ratio of high-p to low-p
- Presence of low-p stimuli



From Belfiore et al., 1997

$$3 \times 5 =$$

$$327 \times 542 =$$

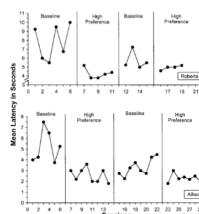


Figure 1. Mean latency (in seconds) to initiate multiplication problems with and without the high-preference sequence.



From Allday et al., 2011

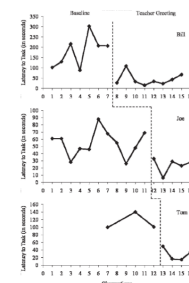


Figure 1. Latency to task engagement (in seconds).



## Self-Management

Transferring control of the behavior to the individual by teaching operant strategies

- Self-monitoring
- Self-prompting
- Self-reinforcement



*"I was surprised to find myself so much fuller of faults than I had imagined, but I had the satisfaction of seeing them diminish."*

Benjamin Franklin

## Some early examples

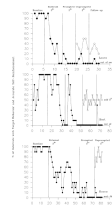
On-task and socially-appropriate behavior	Homework	Schedule-following
<ul style="list-style-type: none"> <li>• Adolescents in self-contained class</li> <li>• Ninness et al., 1991</li> </ul>	<ul style="list-style-type: none"> <li>• 6<sup>th</sup> graders in general education</li> <li>• Olympia et al., 1994</li> </ul>	<ul style="list-style-type: none"> <li>• Teens with ASD</li> <li>• Newman et al., 1995</li> </ul>
Appropriate conversation	Reduce problem behavior	Vocational tasks
<ul style="list-style-type: none"> <li>• Teens with ASD</li> <li>• Newman et al., 1996</li> </ul>	<ul style="list-style-type: none"> <li>• Children with ASD</li> <li>• Newman et al., 1997</li> </ul>	<ul style="list-style-type: none"> <li>• Adults with DD</li> <li>• Christian &amp; Poling, 1997</li> </ul>

## Specific strategies

- Auditory prompts
  - Study behavior (McDougall & Brady, 1995)
  - DRO (Newman et al., 1997)
  - Work completion (Christian & Poling, 1997)
- Visual cues
  - Job independence (Sowers, Verdi, Bourbeau, & Sheehan, 1985)

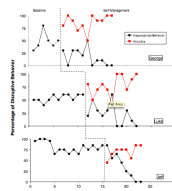
## Self-management of a DRO using audible kitchen timer (1997)

- Three students with autism
- Disruptive behavior
- Yes/no self-assessment and token delivery every 1 minute
- Cued by kitchen timer (5-second ring)
- Reinforcers at end of 10-minute session based on number of tokens



## Self-management of a DRO using covert electronic prompting (2013)

- Three students with autism
- Disruptive behavior
- Yes/no self-assessment and check delivery every 3 minutes
- Cued by MotivAider®
- Reinforcers at end of 30-minute session based on number of "yes" checks



"Students learn what you teach them, not what you want to teach them."



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