Parents as Teachers: Promoting Independent Living Skills in the Home and Community

Frank R. Cicero, PhD, BCBA, LBA
National Autism Conference at PennState
August 8, 2019
ASD and Adaptive Behavior
Adaptive behavior refers to how a person meets the standards of personal independence and social responsibility established by their community.

A person’s level of adaptive behavior is assessed in comparison to others of similar age and socio-cultural background.

Adaptive behavior has a developmental trajectory that increases with age.

(Kilincaslan, et al., 2019)
Adaptive behavior is typically divided into three basic skill sets:

- **Conceptual skills** (e.g., fundamental reading, number and money concepts, time concepts, verbal, nonverbal, and written communication skills, etc.)

- **Social skills** (e.g., interpersonal and relational skills, play skills, understanding and following social rules and customs, obeying laws, recognizing intentions of others, avoiding victimization, etc.)

- **Practical life skills** (e.g., activities of daily living such as eating, bathing, and dressing, occupational skills, navigational skills, safety skills, community skills, etc.)
Practical life skills including personal hygiene, dressing, meal preparation, completing household chores, following safety rules, and money management are important prerequisites for self sufficiency and autonomy.

Individuals with disabilities who are independent in dressing and eating are more likely to engage in post-secondary education and obtain employment.

Poorer practical life skills is a significant predictor of lower levels of family quality of life and higher levels of parental distress.

(Kilincaslan, et al., 2019)
Adaptive behavior should be assessed separately from intellectual functioning because individuals with average IQ can show significantly delayed adaptive behavior.

Many individuals with ASD show this profile.

Despite this finding, higher IQ can be a predictor of stronger adaptive behavior in adulthood as is the presence of language in preschool and early school years.

(Hus Bal, et al., 2015)
In a study comparing the practical life skills of individuals with autism to those of IQ-matched controls without autism, Kilincaslan, et al., (2019) found that the ASD group was significantly lower on measures of personal hygiene, dressing, safety, and interpersonal skills.

Specific skill deficits included washing hands, washing face, brushing teeth, combing hair, toileting, cleaning after defecation, bathing, putting on shoes, doing simple housework, folding clothes, asking help from adults, shopping skills, telling address/phone number when needed, and answering a phone.

These results were similar to results of past research.
Family Members: An Important Part of the Treatment Team
Parent involvement in ABA programs for children with autism has been recommended for decades.

This is especially true for the EIBI programs.

Training parents to be therapists allows for learning in a variety of situations, increases skill development, increases parenting confidence and reduces parent stress.

(McConachie & Diggle, 2007)
Research indicates parent involvement can benefit children with ASD in a variety of ways:
- Improved understanding of the child
- Improved understanding of the home setting
- Improved home-school communication
- Increased service coordination
- Increased generalization of learned skills to home and community

Back to the Basics

Teaching Developmentally Disabled Children

by O. Ivar Lovaas

The ME Book

Lovaas (1981)
“The first serious mistake we made in this program was to treat the children within an institutional (hospital or clinic) environment. The changes we created in the child’s behaviors did not generalize, or transfer, to the rest of the child’s environment, such as his home or school. However, we were successful when we made special efforts to bring about generalization. These special efforts involved working out the treatment and educational programming in these other environments...”

(Lovaas, 1981, pp. ix)
“The second major mistake we made was to isolate the parents from their child’s treatment. We thought it quite appropriate that professional persons such as ourselves should play the major role in the treatment program, with a smaller role being assigned to the parents and the child’s teachers.”

(Lovaas, 1981, pp. x)
“There were several major problems associated with this decision. First, the children needed a great deal of treatment time in order to show improvement...Second, if the parents didn’t know exactly what their child’s treatment program consisted of, what we were doing, why we were doing it, and what the final goals were, then they wouldn’t be able to help their child maintain the gains made in therapy, and the child would regress”

(Lovaas, 1981, pp. x)
“We realized our errors, and changed our approach to teaching the child’s parents and teachers exactly how we had taught the children. The child’s treatment was placed in the hands of the adults in his natural, everyday community. The parents and teachers became the child’s primary therapists, and we became the consultants.”

(Lovaas, 1981, pp. x)
Guiding Principles (Lovaas, 1981)

1. All persons who consistently interact with developmentally disabled persons have to learn to be teachers.

2. Set small goals in the beginning so that both you and your child will be rewarded.

3. Be prepared for hard work. Protect yourself from burnout by forming a “teaching team.”
4. Have your child work for what he/she wants; make the child responsible.

5. Try not to be frightened or feel guilty by the child’s emotional outbursts or withdrawal.
Choosing Goals: Assessment
Deciding on Goals

- “What three or four things that Patricia doesn’t do now would we most like for her to be able to do by the end of the year?”
  - Skill acquisition goals

- “What three or four things that Jeff does now would we like him not to do by the end of the year?”
  - Behavior reduction goals
Developing Goals and Objectives

Be specific yet simple

Put on own coat
Share things without screaming
Speak in longer sentences
Make a telephone call to parents
Walk from the bathroom independently
Successfully go on a job interview
Assessment

- A thorough skills assessment is needed prior to the development of any child’s programming

- A combination of formal and informal methods are recommended
Assessment

- Key skill areas to be assessed:
  - Speech and communication
  - Academics
  - Social skills
  - Daily living skills
  - Independence
  - Problem behaviors
  - Fine and gross motor behavior
  - Community skills
  - Vocational skills
Focus for Young Child

- Learning readiness skills (behavioral cusps)
  - Imitation
  - Matching
  - Sitting
  - Maintaining attention
  - Eye contact
  - Task completion
  - Group learning

- Speech, language, communication

- Play skills
ABLLS-R (Partington, 2010)
Assessment, curriculum guide, and skills tracking system for children with language delays

Criterion referenced instrument

Task analysis of skills in order for a child to become more capable of learning from every day experiences

Focus on generalized learning skills
Learning readiness
- Cooperation and reinforcer effectiveness
- Visual performance
- Imitation

Language
- Receptive language
- Vocal imitation
- Requests
- Labeling
- Intraverbals
- Syntax and grammar
- Spontaneous vocalizations
Social skills
- Play and leisure
- Social interaction
- Group instruction
- Classroom routines
- Generalized responding

Academics
- Reading
- Math
- Writing
- spelling
Daily living skills

- Dressing
- Eating
- Grooming
- Toileting
- Gross motor
- Fine motor
Assessment of Basic Language and Learning Skills - Revised
Skill Tracking System
VB-MAPP (Sundberg, 2014)
Assessment of basic learning and language skills in young children.

Assesses:
- Basic language
- Social and play skills
- Visual perception skills
- Learning readiness
- Basic academics
- Barriers to learning
- Skills for transition to less intensive settings
- Provides a detailed task analysis of skills
AFLS (Partington & Mueller, 2012)
Assessment of functional skills needed across settings (home, school, community, employment)

Recommended for:
- Learners who are under 5 years of age and have mastered the content of the ABLLS-R
- Learners ages 9-11 who have not achieved beyond the early language stage of the ABLLS-R
- Learners above the age of 12 of any skill level
Vineland-3 (Sparrow, Cicchetti, & Saulnier, 2016)
Most widely used measure of adaptive behavior

First developed by Edgar Doll in 1935 (*Vineland Social Maturity Scale*)

Interview with caregiver measuring typical performance across areas of adaptive behavior

Standardized, norm-reference measure allows for an assessment of deficit compared to age expectations
- Communication
  - Receptive, Expressive, Written
- Daily living skills
  - Personal, Domestic, Community
- Socialization
  - Interpersonal relationships, Play and leisure, Coping skills
- Motor Skills
  - Fine and gross motor
- Maladaptive Behavior
Why Are You Doing this Program?

- Because it is an important pre-learning skill
- Because it promotes independence
- Because it is an important pre-requisite skill for another response (behavioral cusp)
- Because the learner enjoys it
Why Are You Doing this Program?

- Because it is a community-needed skill
- Because it promotes communication/socialization
- Because it will reduce problem behaviors
- Because it is necessary for a move to a less restrictive setting
What are some important skills you would like to teach your child at this time?

What is the rationale for teaching each skill?
Choose one skill to work on at this time

What is the definition of the skill? (What exactly do you want your child to do?)

What is your child’s present level of performance (baseline)?
Basic Principles of ABA
What is Learning?

- Learning can be defined as a relatively permanent change in behavior brought about as a result of experience or practice.
  - You learn to tie your shoes
  - You learn to identify letters
  - You learn to socialize
  - You learn to be aggressive

- Instruction provides opportunities for practice and reinforcement.
Reinforcement
Technical Definition

When a stimulus change immediately follows a response and increases the future frequency of that type of behavior in similar conditions.

(Cooper, Heron, & Heward, 2007)
Reinforcement
Basic Idea

The idea that when a behavior is followed by something that a person likes, they will be likely to repeat that behavior again.

Eat some of this chicken first and then you will get your juice.
Classes of Reinforcement

- There are two general classes of reinforcement, **Positive Reinforcement** and **Negative Reinforcement**

- Do not think that positive means “good” and negative means “bad”

- Instead think in terms of math. **Positive** means **ADD** and **negative** means **TAKE AWAY**

Adapted from Eden II Programs
Positive Reinforcement

- The presentation of a stimulus contingent upon a behavior that increases the likelihood of that behavior

- Example:
  Giving a child candy after he follows your direction of clapping his hands and in the future hand clapping increases

Adapted from Eden II Programs
Positive Reinforcement
In YOUR Life
<table>
<thead>
<tr>
<th>Effect on Behavior</th>
<th>Something Added</th>
<th>Something Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td><strong>Positive Reinforcement</strong></td>
<td></td>
</tr>
<tr>
<td>Decreased</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Eden II Programs
Negative Reinforcement

- The removal of an unpleasant stimulus contingent upon a behavior that increases the likelihood of that behavior.

Example:
Giving a child a break from his classwork after he follows three directions and in the future he continues to follow directions

Adapted from Eden II Programs
Negative Reinforcement
In YOUR Life

OK...I’m up. Stop ringing already!!!
<table>
<thead>
<tr>
<th>Effect on Behavior</th>
<th>Something Added</th>
<th>Something Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>Positive Reinforcement</td>
<td>Negative Reinforcement</td>
</tr>
<tr>
<td>Decreased</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Punishment
Technical Definition

When a stimulus change immediately follows a response and decreases the future frequency of that type of behavior in similar conditions.

(Cooper, Heron, & Heward, 2007)
Punishment
Basic Idea

When something that you do is followed by an unpreferred consequence, you are less likely to repeat that same behavior.

Next time, I’ll think twice before yelling at my teacher.
Classes of Punishment

- Just like with reinforcement, there are two classes of punishment, **positive punishment** and **negative punishment**

- Also just like with reinforcement, think of these two classes in mathematical terms...**ADD** and **TAKE AWAY**

Adapted from Eden II Programs
Positive Punishment

- The presentation of an aversive stimulus, contingent upon a behavior, that decreases the likelihood of that behavior happening in the future.

- Example:

  After an individual engages in self injury, you deliver a strong verbal reprimand (“No Biting”) and in the future the self injury decreases

Adapted from Eden II Programs
Positive Punishment
In YOUR Life

I WILL NOT PULL MY TRAPER
I WILL NOT PULL MY TRAPER
I WILL NOT PULL MY TRAPER
I WILL NOT PULL MY TRAPER
<table>
<thead>
<tr>
<th>Effect on Behavior</th>
<th>Something Added</th>
<th>Something Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>Positive Reinforcement</td>
<td>Negative Reinforcement</td>
</tr>
<tr>
<td>Decreased</td>
<td>Positive Punishment</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Eden II Programs
Negative Punishment

- The removal of a preferred stimulus, contingent upon a behavior, that decreases the likelihood of that behavior happening in the future.

- Example:
  Taking away future time from the computer because a student was screaming and in the future the screaming decreases

Adapted from Eden II Programs
Negative Punishment
In YOUR Life

Sorry Officer. Thank You for the Ticket.
<table>
<thead>
<tr>
<th>Effect on Behavior</th>
<th>Something Added</th>
<th>Something Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>Positive Reinforcement</td>
<td>Negative Reinforcement</td>
</tr>
<tr>
<td>Decreased</td>
<td>Positive Punishment</td>
<td>Negative Punishment</td>
</tr>
</tbody>
</table>

[https://youtu.be/JA96Fba-WHk](https://youtu.be/JA96Fba-WHk)  
Adapted from Eden II Programs
Identifying Reinforcers

- What will be reinforcing for people is individualized…so how do you find out what a child likes?
  - Ask the child
  - Trial and error
  - Try out things similar to what you already know they like
  - Observe the child in a natural setting. What do they choose to do?
  - Interview people that know the child
  - Data-based preference assessments

Adapted from Eden II Programs
Identifying Reinforcers

- Remember that reinforcers can change over time, so you should periodically assess.

- Try to find new reinforcers frequently, otherwise boredom may set in.

- Keep in mind that if behavior is not increasing…then you probably don’t have an effective reinforcer.

Adapted from Eden II Programs
Classes of Reinforcers

- There are two classes of reinforcers…
  - Primary Reinforcers and Secondary Reinforcers

- Primary Reinforcers
  - Things that an individual finds inherently reinforcing because they are human. No effort is required to make the items reinforcing.

Food

Drink
Classes of Reinforcers

- **Secondary Reinforcers**
  - Things that are not reinforcing on their own. They are not inherently reinforcing. Secondary reinforcers are only found to be reinforcing because they are paired with access to primary reinforcers.

Think of them as neutral things that bring about better things

Adapted from Eden II Programs
Secondary Reinforcers

Money  Tokens  Praise

Adapted from Eden II Programs
Using Verbal Praise

- Remember that verbal praise is a secondary reinforcer.
- This means that you need to always use verbal praise when giving a primary reinforcer so that the verbal praise can eventually become a reinforcer also.
- Vary your verbal praise.
- Use behavior-specific verbal praise whenever possible.

Adapted from Eden II Programs
Using Reinforcement Effectively

- Schedules, systems and reinforcers need to be individualized
- Deliver a reinforcer immediately after a desired behavior or response
- Differentiate your tone of voice between verbal praise and instructions
- When teaching a new skill, use a continuous schedule of reinforcement. This means reinforce after each and every correct response. This increases responding

Adapted from Eden II Programs
Using Reinforcement Effectively

- Fade to an intermittent schedule once the person knows the response. This means that you give a reinforcer after some, but not all, correct responses. Intermittent schedules make responses stronger.

- Always have multiple and various reinforcers available

- Conduct reinforcer assessments frequently

- Fade primary reinforcers into secondary or naturalistic reinforcers whenever possible

Adapted from Eden II Programs
Extinction is a process that is used to decrease behaviors. With extinction, you remove the reinforcer that is maintaining a behavior. Remember that reinforcement increases behavior. Once a behavior is no longer reinforced, it will decrease.

This doesn’t seem to be working…

John, you’re still not getting that toy

Adapted from Eden II Programs
Issues with Extinction

- Extinction burst – When placed on extinction, a behavior will always increase in intensity before it decreases.
- Spontaneous recovery – Behaviors reduced through extinction will resurface after a period of time. They will re-extinguish if placed on extinction again.
- Some behaviors may be difficult, impossible or unethical to put completely on extinction.

Didn't you hear me???
I said I WANT IT!!!!!!!!
NOW!!!!!!!!

What used to work?.... Oh yeah, screaming. Let me try that again!

Adapted from Eden II Programs
Extinction in Your Life

- Vending machines work on the principle of reinforcement

- They reinforce your behavior of putting money in the machine by giving you your snack (positive reinforcement at work!)

- If the machine is broken, it doesn’t give you your snack. You stop putting money in (extinction at work!)

- And yes… You go through an extinction burst!!!

Adapted from Eden II Programs
How might you use the basic principles of ABA to teach your target skill?
How People Learn: The Learning Principle
Three Term Contingency
(The Learning Principle)

Sd                          R                     Sr
Discriminative Stimulus    Response                  Reinforcing Stimulus
“touch red”               touches red               candy or praise

Prompt

https://youtu.be/cp_gzUTCm8g
Prompts

- Verbal/Auditory
- Text
- Gestural
- Physical
- Intrastimulus
- Positional
- Model

https://youtu.be/TDijJjKHMVQ
Motivation

- In order for a person to engage in a behavior they must be motivated to access the reinforcer that is being offered (or that is the natural consequence to the behavior)

- Without motivation to respond, no learning will occur

- Set up the environment to produce motivation
  - Food presented without utensils
  - Task presented without needed materials
  - Clothes presented without providing assistance
  - Friends have preferred toys
What would be a possible three-term contingency used in teaching your target skill?
Shaping Behavior
“The journey of a thousand miles begins with a single step.”

Lao-tzu, sixth century B.C. Chinese philosopher
Shaping is the process of reinforcing “successive approximations” toward a new behavior, step by step, until the new behavior is learned.

Shaping fosters the gradual development of a new behavior by repeatedly reinforcing minor improvements or steps toward that behavior.

(Cooper, Heron, and Heward, 2007)
Every person can learn a new skill as long as that skill is gradually shaped. Even skills that you thought could never be achieved.

Can I run the NYC marathon?

The answer is YES, but not today!
Pre-requisite Skills

- Before starting to teach the steps to your goal, you might need to teach pre-requisite skills.

- For example, before training to run the NYC marathon you might need to give up smoking a pack of cigarettes a day as a pre-requisite.

- Before teaching a child how to sit at a restaurant table for 20 minutes you might first need to reduce levels of aggression.

- These pre-requisite skills are not skills that are specifically part of the new behavior being learned but will prevent them from learning the new skill or prevent them from being able to use the new skill once learned.
What might be some pre-requisite considerations to keep in mind before teaching your target skill?
Skinner (1953)

“Operant conditioning shapes behavior as a sculptor shapes a lump of clay... The final product seems to have a special unity or integrity of design, but we cannot find a point at which this suddenly appears. In the same sense, an operant is not something which appears full grown in the behavior of the organism. It is the result of a continuous shaping process.”
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Example</th>
</tr>
</thead>
</table>
| Topography    | • Refining motor movements associated with a golf swing, throwing motion, or vaulting behavior  
                • Improving cursive letter formation                                                                                             |
| Frequency     | • Increasing the number of problems completed during each minute of math seatwork  
                • Increasing the number of correctly spelled words per minute                                                                        |
| Latency       | • Decreasing compliance time between parental directive to “clean your room” and the onset of the behavior  
                • Increasing the delay between the onset of aggressive behavior by a student with severe emotional disabilities |
| Duration      | • Increasing the length of time a student stays on task  
                • Increasing the length of a musical note of the oboe                                                                               |
| Amplitude     | • Increasing the projected voice volume of a speaker  
                • Increasing the height of a high bar jumper                                                                                         |

(Adapted from Cooper, et al., 2007)
Creating the Shaping Steps

- Develop a list of approximations that will gradually take the child from the present level of performance to the final goal.

- These steps will depend on the form of the behavior being taught and must be individualized to the learning rate of the child.
- Lengthening a Behavior (Duration)
  - Gradually increasing units of time
    - John will sit at the table for 2 minutes
    - John will sit at the table for 5 minutes
    - John will sit at the table for 8 minutes
    - John will sit at the table for 10 minutes

- Shortening a Behavior (Latency)
  - Gradually shortening the latency between the cue and the response
    - Jim will line up within 5 minutes of being told
    - Jim will line up within 3 minutes of being told
    - Jim will line up within 1 minute of being told
- **Frequency of Behavior**
  - Kim will throw a ball at least once when playing catch
  - Kim will throw the ball at least twice when playing catch
  - Kim will throw the ball at least 5 times when playing catch

- **Increasing the force of a behavior (amplitude)**
  - Jeff will throw the ball at a person standing at least 1 foot from him
  - Jeff will throw the ball at a person standing at least 2 feet from him
  - Jeff will throw the ball at a person standing at least 5 feet from him
  - Jeff will throw the ball at a person standing at least 10 feet from him.
- Changing the form of a behavior (topography)
  - Steps of a golf swing
Ready to Teach

- Start by reinforcing responses at the baseline level (present performance) until consistent

- Introduce the first approximation and only reinforce that new response
  - Make sure that the first new response is only slightly more advanced than the baseline level

- Withhold reinforcement for the previous response (only the new response receives reinforcement)

https://youtu.be/kexFINXbJo4
<table>
<thead>
<tr>
<th>Touching glasses</th>
<th>Touching glasses</th>
<th>Touching glasses</th>
<th>Touching glasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picking up glasses</td>
<td>Picking up glasses</td>
<td>Picking up glasses</td>
<td>Picking up glasses</td>
</tr>
<tr>
<td>Putting glasses up to face</td>
<td>Putting glasses up to face</td>
<td>Putting glasses up to face</td>
<td>Putting glasses up to face</td>
</tr>
<tr>
<td>Placing glasses in position</td>
<td>Placing glasses in position</td>
<td>Placing glasses in position</td>
<td>Placing glasses in position</td>
</tr>
</tbody>
</table>

Wolf et al. (1964)
- Prompt the new response if needed

- Use modeling as first prompting level
- Use a physical prompt if modeling is not successful
- Do not use a verbal prompt
- Give no more help than needed and only for as long as needed ("graduated guidance")
- Immediately prompt if the behavior is not independently emitted within a few seconds of the baseline response
- At first, follow all new responses, even prompted ones with reinforcement
- As responses are mastered, move up the steps

- Continue to introduce new approximations (prompting as needed) and withholding reinforcement for all previous steps

- Gradually the new behavior is shaped and you end up reinforcing only the final goal response
Chaining Behavior
Creates a complex behavior from already shaped smaller units of behavior

- Tooth brushing
- Showering
- Traveling to work from home
- Stuffing and sealing an envelope
- Playing kitchen set with peers
- Exercising using multiple machines at the gym
- Food shopping
Task Analysis

- Develop a list of steps that will gradually take the student from the present level of performance to the final goal.

- These steps will depend on the form of the behavior being taught and must be individualized to the learning rate of the student.

- Some learners need more detailed task analyses than others.
How to construct the task analysis

- Observe a competent individual perform the task
- Consult with experts or persons skilled in performing the task
- Perform the task yourself

You can always modify as needed
Grilled Cheese Sandwich

You will need:

- Bread
- Sliced cheese
- Butter
- Butter knife
- Spatula
- Frying pan

Ingredients:

- 2 Slices Bread
- 1 Slice Cheese
- 1 Tablespoon butter

Instructions: Put pan on stove on low - medium heat

Lay both slices of bread down on a flat surface.

Spread half the butter on one slice of bread.

Lay bread in pan, butter side down, and top with cheese slice.

Butter second slice of bread with remaining butter.

Lay bread over cheese in pan with the butter side facing up.

When bottom bread is browned, use spatula to flip sandwich.

Cook until other side is browned and remove to plate. Enjoy!
Shower Routine

- get undressed
- turn on water
- get in shower
- wet hair wet face
- put shampoo in hand
- shampoo hair
- rinse hair
- put cream rinse in hand
- work through hair
- rinse hair
- wash face
- rinse face
- wash body
- rinse
- dry off dry face dry hair
- get dressed
Step 1
Click on the “Attach a file” link

Step 2
The “Choose File” button is displayed - click on it

Step 3
Go to the directory that has the photos you want to send over email. Either double click on the picture or select it and click the “Open” button below.

Step 4
The file will be attached to the email message.
Total Task vs. Behavior Chaining

- **Total Task** – prompting an individual through an entire complex behavior each trial
  - Ex. Doing a “hand washing goal” by having the participant wash their hands after snack and prompting them through the entire activity

- **Behavior Chaining** – systematically reinforcing steps along the way until the complex behavior is independent
  - Ex. Reinforcing an attempt at a new level of hand washing while withholding reinforcement for any responses below that level
Chaining Procedures

- Forward Chaining https://youtu.be/FPlNVXuhyNg
- Backward Chaining https://youtu.be/LbBj4Tzi9CQ
- Total Task with Graduated Guidance https://youtu.be/dYx0GyBvKBk
Teaching through total task presentation will likely not lead to skill acquisition.

Think of how you typically teach current goals…….is it usually through total task or through chaining?

Next time you teach a goal, pay attention to how you are teaching it.

Teach in repeated trials, when the behavior is not actually necessary.
Would you use shaping procedure?

List out your approximation steps from present level to terminal goal.

Would you use a chaining procedure?

List out the task analysis.
Assessing Progress

- How do you know if your child is making progress in achieving their goal?
- **Data!**
- Collect data specifically on the dimension of behavior that you are changing
- “Correct-Incorrect” data is often the easiest once you define your task analysis steps and if you teach within discrete trials.
## Prompts:

- **P** = Full Physical
- **PP** = Partial Physical
- **V** = Full Verbal
- **PV** = Partial Verbal
- **M** = Model
- **PM** = Partial Model
- **+** = Correct w/No Prompt
- **NR** = No Response
- **-** = Incorrect

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Turn on Water</strong></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hands in Water</strong></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pump Soap</strong></td>
<td>P</td>
<td>P</td>
<td>PP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rub Hands</strong></td>
<td>P</td>
<td>P</td>
<td>PP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rinse Hands</strong></td>
<td>P</td>
<td>P</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Turn Off Water</strong></td>
<td>P</td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Get Paper Towel</strong></td>
<td>P</td>
<td>P</td>
<td>PP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dry Hands</strong></td>
<td>P</td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Throw Away Paper Towel</strong></td>
<td>P</td>
<td>P</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># of Steps Independent</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Correct</td>
<td>22%</td>
<td>22%</td>
<td>22%</td>
<td>44%</td>
</tr>
</tbody>
</table>
Example: Intensity Data Sheet (sometimes called a behavior rating scale)

Student's name________________________ Observer________________________
Date________________________
Interfering behavior hitting_________

<table>
<thead>
<tr>
<th>Time behavior occurred</th>
<th>Very severe/intense (dangerous)</th>
<th>Pretty severe (potentially dangerous)</th>
<th>Somewhat severe (causes problems but is not dangerous)</th>
<th>Not at all severe (annoying, inconvenient or distracting)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:15</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10:05</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10:23</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10:40</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11:30</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

today_________ intense (dangerous)_________
<table>
<thead>
<tr>
<th>Name: Lisa</th>
<th>Activity: During Math Class Increase: Raise hand.</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: 3/3 - 3/8</td>
<td>Decrease: calls out.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
Hooray for Play! **DATA SHEETS**

Set up conditions for naturalistic pretend play with the learner with both associated props and items that can be used symbolically to support play. As a new play schema is introduced more prompting and modeling will be necessary but should be faded out as quickly as possible to allow for spontaneous demonstrations of related play actions by learner.

**GRAPHING PROCEDURE:**
(total number of spontaneous actions) + (total number of opportunities) × 100 = %

<table>
<thead>
<tr>
<th>ACTION &gt;</th>
<th>SCHEMA NAME: Space Travel/Astronaut</th>
<th>P = Prompted</th>
<th>I = Imitated</th>
<th>S = Spontaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE/INITIALS</td>
<td>P</td>
<td>I</td>
<td>S</td>
<td>P</td>
</tr>
<tr>
<td>8/12/13 SA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8/14/13 KB</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8/14/13 MG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTION &gt;</th>
<th>LANDS ON ANOTHER PLANET</th>
<th>EXPLORES PLANET</th>
<th>REPAIRS SHUTTLE</th>
<th>MAKES RELATED COMMENT</th>
<th>CONTRIBUTES NOVEL ACTION</th>
<th>RETURNS TO EARTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE/INITIALS</td>
<td>P</td>
<td>I</td>
<td>S</td>
<td>P</td>
<td>I</td>
<td>S</td>
</tr>
<tr>
<td>8/12/13 SA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8/14/13 KB</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8/14/13 MG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Created by Stacy L. Asay, www.diffelearn.com/*
How might you collect data to assess progress on your target skill?
Teaching Independent Schedules

(McClanahan & Krantz, 2010)
Schedule-following

- *Schedules* are comprised of sequenced stimuli that cue the student to perform a particular behavior without direct staff intervention (indicated by either pictures or words)
Schedule-following

- **Prerequisite skills**
  - Sitting
  - Object to picture correspondence
  - Task completion/play skills
  - Object retrieval
  - Object return
  - Lack of interfering problem behavior
  - Attending
Types of Schedules

- Picture
- Written
- Audio
- Object
- Combination

https://youtu.be/u7Ph4NGNhJU

https://youtu.be/1RW6qv7mtM0
5 Ways to Stretch Your Students’ Skills During Independent Work

Autism Classroom News
Pour 2 cups milk.
To complete this task I will...
Written Schedule with Movable Cards
Schedule-following

- Child is taught to identify items in pictures
- Child then retrieves item in picture from close location
- Child completes mastered task
- Child then returns item to location
- Child moves on to next activity and follows same procedure
Schedule-following

- Distance of material is increased
- Duration of activity is increased
- Length of schedule is increased over time (more activities are added to schedule)
- Add choice making
- Add variety
Where schedules can be useful:

- Home
- School
- Car
- Waiting rooms
- Almost anywhere
Practical applications:

- Keep child on-task, engaged for longer periods of time
- When working 2:1, group
- Allow time to give siblings attention
- To review maintenance programs
- To structure part or all day
- Introduce choices and novel materials
- Prompt diversity of activity
- Involve siblings/peers
How to Teach a Schedule

- Start with mastered enjoyable tasks
- Begin with a short schedule
- Be sure the child can do the task independently from beginning to end
- Start with materials at arms length
How to Teach a Schedule

- Use reinforcement pictures as needed
- Chain activities together
- Take data
- Use non-verbal prompts
- Fade prompts as soon as possible
Prompt and Prompt-Fading

- Prompts include physical prompts for the child to orient to the schedule, to turn pages as well as retrieve and replace the item.

- Prompt from behind
  - To be less intrusive
  - To facilitate prompt-fading
Prompt and Prompt-Fading

- Fade to arm/wrist
- Fade to shadowing arm/wrist
- Fade prompt to standing behind child and shadowing
Prompt and Prompt-Fading

- Fade prompt by increasing distance between self and child
- Continue to increase distance between self and child
How/why might you use an independent activity schedule?

What might the components of the schedule look like?
Video Modeling
Video Teaching

- Using video as a medium for teaching
- Can be used for skill acquisition (teach new skills such as reading, labeling, task completions)
- Can be used to decrease undesirable behavior
Advantages of Video Teaching Over Live Teaching

- Presentation Format
  - Can be used repetitively (replay the video)
  - Same presentation each trial
  - Less extraneous stimuli
  - 2-Dimensional (history of $S^R$ for paying attention to pictures)
Advantages of Video Teaching Over Live Teaching

- Social Component
  - Eye contact is not required from the “instructor” (the video)
  - Video does not place social demands upon child
Advantages of Video Teaching Over Live Teaching

- **Motivation**
  - May be more motivating because video is interesting
  - May have history of success with video
  - May be more motivating because there is no social requirement when “learning”
Some Practical Reasons to Use Video Modeling

- May make learning more fun
- Effective procedure for teaching complex skills (sequenced play skills or social skills)
- Personnel efficient
Sample Areas of Focus

- Language
- Socialization
- Play skills
- Academic skills
- Self-help skills
Prerequisite Skills for Video Modeling

- Can imitate actions/sequences in vivo
- Attending skills are present. Child should be able to attend to video for up to 1 minute (sitting on floor or in a chair or standing in place)
- Observational learning skills are emerging
- Interest in videos may be helpful
Teaching Using Video Modeling

- Child views video sequence
- Begin with mastered task just to get child used to modeling from the video
- Same materials/activity are present
- Child imitates sequence
- Reinforce imitation
Video-fading

- Possible video-fading options:
  - Decrease volume
  - Decrease picture
  - Move location of television
  - Shorten clip
How/why might you use video modeling as a teaching tool for a skill for home or community?
Questions
Comments
Sharing
FrankRCicero@yahoo.com