

Planning for Successful Inclusion in the Workplace: Teaching Relevant Skills, Making Appropriate Job Matches & Adapting Teaching for Job Sites



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Today's Agenda

- ▶ Teaching Relevant Skills
- ▶ Making Appropriate Job Matches
- ▶ Adapting Teaching for Job Sites



Alpine's Transition Model

- ▶ Under age 14: Community-based instruction
- ▶ Age 14 (or younger): Prevocational skills
- ▶ Age 16-21: Supported Internship program
- ▶ Age 21+: Supported Employment
 - ▶ 83% of adult learners have P/T employment



Teaching Relevant Skills: Functional Skill Selection



"Functional"

What does that mean?

- ▶ Practical
- ▶ Useful beyond the classroom
- ▶ Increase independence

Why is it important?

- ▶ Stay focused
- ▶ Take advantage of resources are available during school years
- ▶ Regulations on internships



Ways to Select

- ▶ Informal observation
- ▶ Input from family, teachers, and caregivers
- ▶ Curricula/Idea Books
 - ▶ The Syracuse Community-Reference Curriculum Guide
 - ▶ TEACCH Transition Assessment Profile
 - ▶ A Guide to Successful Employment for Individuals with Autism
 - ▶ Life Centered Career Education (LCCE)
 - ▶ Vocational Curriculum for Individuals with Special Needs
- ▶ Assessments
 - ▶ Assessment of Functional Living Skills (ALFS)
 - ▶ <https://parkingtonbehavioranalysis.com/products/alfs/>
 - ▶ Nassau Suffolk Services for Autism Transition & Vocational Skill Assessment
 - ▶ https://www.autismpeaks.org/docs/family_services_docs/NSSA_Trans.pdf
 - ▶ Community-based Skills Assessment
 - ▶ <https://www.autismpeaks.org/family-services/community-based-skills-assessment>



Narrowing Down Goals

- ▶ Consider
 - ▶ Person's lifestyle
 - ▶ Frequency of skill use
 - ▶ Likelihood to maintain
 - ▶ Necessary prerequisite skills
 - ▶ Available adult services
 - ▶ Vision for the future
 - ▶ Person-centered planning



Key Curriculum Areas

1. Self-Care
2. Social
3. Prevocational
4. Reducing problem behavior



Self-Care



Why?

- ▶ New skills needed during puberty
- ▶ Poor hygiene is stigmatizing
- ▶ Impacts opportunities for
 - ▶ Employment
 - ▶ Friendship
 - ▶ Acceptance in the community
- ▶ Increases
 - ▶ Independence
 - ▶ Safety



The Challenge

- ▶ Discrimination issues
- ▶ What's the reinforcer?



Relevant Skills

- ▶ **Dressing**
 - ▶ Selects clothing (fit, weather, matching)
 - ▶ Dresses in common and
 - ▶ Cooperates with selecting a variety of clothing
- ▶ **Grooming**
 - ▶ Brushes & flosses teeth
 - ▶ Washes face
 - ▶ Uses deodorant
 - ▶ Shaves arms
 - ▶ Applies lotion
 - ▶ Grooms nails
 - ▶ Trims hair
 - ▶ Shaves (neck, legs, armpits)
 - ▶ Applies makeup
 - ▶ Cleans ear platters
- ▶ **Bathing**
 - ▶ Puts dirty clothes in hamper
 - ▶ Regulates water temperature
 - ▶ Washes body & hair
 - ▶ Dries body & hair
- ▶ **Health & First Aid**
 - ▶ Treats minor injuries
 - ▶ Seeks medical attention
 - ▶ Reports illness and pain
 - ▶ Cooperates with medical examinations and procedures
- ▶ **Toileting**
 - ▶ Maintains cleanliness throughout day & night
 - ▶ Washes hands
 - ▶ Maintains care
- ▶ **Hygiene/Bodycare**
 - ▶ Goes to bar or shave/razor store
 - ▶ Falls asleep without assistance
 - ▶ Shaves face or adequate amount of time
 - ▶ Sets & answers to an alarm clock
- ▶ **Meal Time**
 - ▶ Takes appropriately-sized drink
 - ▶ Eats at appropriate pace
 - ▶ Uses utensils
 - ▶ Expects/observes behavior
 - ▶ Uses a napkin
 - ▶ Coughs/covers the mouth/nose
 - ▶ Uses proper etiquette w/ food/drink, leaving



Teaching Techniques: Response Chains & Task Analysis

- ▶ Response chains
 - ▶ Contain many component steps
 - ▶ Not a discrete single step response
 - ▶ Most self-care skills are response chains
- ▶ Task analysis: breaking a complex skill into smaller, teachable units (Cooper, Herron, & Heward, 2007)



Sample Task Analysis: Applying Deodorant

1. Takes off shirt
2. Gets deodorant
3. Takes off cap
4. Twists knob 1 rotation
5. Presses against underarm and wipes up and down 5 times
6. Puts cap on deodorant
7. Puts away deodorant
8. Puts on shirt



Teaching Techniques: Schedules

- ▶ A series of words, pictures, auditory cues, or videos that represent steps in a sequence
- ▶ The learner is taught to:
 - ▶ Point to the picture or text
 - ▶ Complete the corresponding step
 - ▶ Return to the schedule
 - ▶ Continue with the next step
- ▶ Staff prompt using physical guidance and reinforces independent responses



Teaching Techniques: Physical Guidance & Prompt Fading

- ▶ Provide physical guidance to ensure errorless performance
 - ▶ Prompts should be clear and specific
 - ▶ Avoid verbal prompts
- ▶ Fade prompts systematically and as quickly as possible
 - ▶ Hand over hand
 - ▶ Wrist
 - ▶ Elbow
 - ▶ Shoulder
 - ▶ Shadow (closely follow without touching)
 - ▶ Increase distance
- ▶ Correct errors quickly using physical guidance and fade back out



Example: Text Schedule



Teaching Techniques: Audio-Taped Prompts

- ▶ Record verbal cues prompting each step
- ▶ Pros:
 - ▶ Effective when using a schedule may be too cumbersome
 - ▶ Can prompt learner for length of time on each step
- ▶ Con: Can be challenging to get the timing of the recording correct

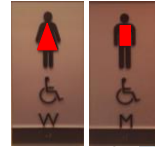


Self-Care Skills: Monitors Personal Appearance



Selecting Gender-Appropriate Restroom

- ▶ Multiple exemplar training
- ▶ Focus on selecting right restroom



Selecting Gender-Appropriate Restroom

- ▶ Multiple exemplar training
- ▶ Focus on selecting right restroom



What About Reinforcement?

- ▶ Some learners may be sensitive to natural consequences
 - ▶ Having a smooth face may reinforce shaving
 - ▶ Compliments may reinforce applying make up
 - ▶ Having someone comment on your bad breath may punish skipping brushing your teeth
- ▶ If the natural consequence doesn't alter behavior, provide an alternate reinforcer. Try to match it appropriately to the task.
 - ▶ The reinforcer for drying hair can be watching TV before bed
 - ▶ The reinforcer for eating neatly can be dessert



Social Skills



Why?

- ▶ Impacts other's perception of competence
- ▶ Impacts employability
- ▶ Impacts social relationships
- ▶ Can impact safety



The Challenge

- ▶ Social skills deficits are at the core of ASD diagnosis
- ▶ Rules may vary based on setting



somecards.com



Relevant Skills

- Introduces self
- Shakes hands
- Holds the door
- Greets others / Responds to greetings
- States "Excuse me" / Moves in response to "Excuse me"
- Offers assistance
- Uses closing statements to end conversation
- Knocks on doors and enters appropriately
- Makes contact when speaking
- Uses polite language
- Walks on the right side of the hallway
- Stands an appropriate distance when speaking with others
- Eats neatly and takes appropriately-sized bites
- Uses names
- Waits appropriately
- Speaks using volume appropriate to the setting
- Avoids touching other's personal items



Introduces Self

- ▶ Why?
 - ▶ First impressions matter
- ▶ Teaching technique: Auditory prompt
 - ▶ Record a model of what you'd like the student to say
 - ▶ Fade the script from the back to the front
- ▶ Nonverbal learners teach shakes with right hand

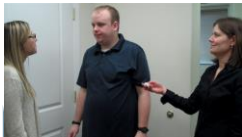


Full Audio-taped Script

- ▶ "Hi, my name is XXXX"
- ▶ "It's nice to meet you"



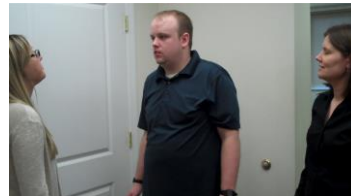
Faded Audio-taped Script



- ▶ "Hi, my name is _____"
- ▶ "It's nice _____"



No Script



Knocks on doors

- ▶ Why?
 - ▶ Important if working in an office environment
- ▶ Teaching technique
 - ▶ Textual cue: Brainstormed common scenarios
- ▶ SD:
 - ▶ "Bring this to the principal"
 - ▶ Encounter scenarios during another task



Knocks on doors

"Come in"	Enter
"Can you come back later?"	Walk away
"I'm busy"	
"Not right now"	
No response	Walk away
On the phone	Wait at door
Finger raised	Wait
Waive in	Enter



Holds the door

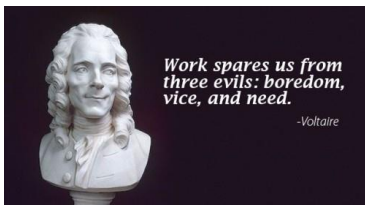
- ▶ Why?
 - ▶ Polite response
 - ▶ Safety of others
- ▶ Techniques:
 - ▶ Physical guidance
 - ▶ Stimulus prompt



Teaching Steps



- ▶ Step 1: Stimulus prompt + physical guidance
- ▶ Step 2: Stimulus prompt
- ▶ Step 3: Stimulus prompt faded 25%
- ▶ Step 4: Stimulus prompt faded 50%
- ▶ Step 5: Stimulus prompt faded 75%
- ▶ Step 6: Stimulus prompt removed
- ▶ Vary doors to program for generalization



Prevocational



Why?

- ▶ Likely required specific training in job skills
- ▶ Gain information about student's preferences
- ▶ Wider internship opportunities allowed during school years
- ▶ Impacts opportunities for
 - ▶ Future employment
 - ▶ Socialization
- ▶ Increases
 - ▶ Future income
 - ▶ Self worth
 - ▶ Community awareness and acceptance



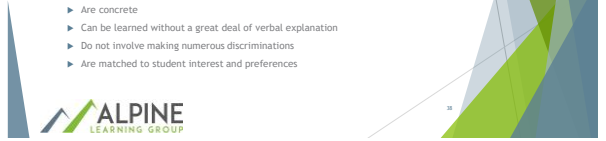
The Challenge

- ▶ Jobs are usually more complex than they appear (e.g., bagging groceries)
- ▶ Less control over environment
- ▶ Natural reinforcer (paycheck) may not be reinforcing



Characteristics of Jobs that are Well-Suited for Individuals with Autism

- ▶ Jobs that...
 - ▶ Provide a good deal of repetition
 - ▶ Are fairly consistent day to day
 - ▶ Do not require extensive social skills
 - ▶ Involve visual tasks
 - ▶ Are concrete
 - ▶ Can be learned without a great deal of verbal explanation
 - ▶ Do not involve making numerous discriminations
 - ▶ Are matched to student interest and preferences



Relevant Skills

Janitorial Tasks

- ▶ Cleans Kitchen/Bathroom/Office
- ▶ Clears Tables using a Busboy Bin
- ▶ Collects Garbage/Paper Recycling
- ▶ Replenishes Supplies
- ▶ Sweeps/Mops/Vacuums Floors
- ▶ Sorts Recyclables
- ▶ Washes Windows
- ▶ Performs Outdoor Maintenance

Food service

- ▶ Busing
- ▶ Cleaning
- ▶ Coat Check
- ▶ Dishwashing
- ▶ Food prep
- ▶ Greeting
- ▶ Food portioning
- ▶ Banquet hall arrangement
- ▶ Silverware polishing
- ▶ Table setting



Relevant Skills

Manufacturing/Assembly Tasks

- ▶ Assembles Boxes
- ▶ Lifts and Carries Boxes
- ▶ Packs Boxes
- ▶ Uses a Hand Truck
- ▶ Packaging
- ▶ Quality control
- ▶ Sewing

Agriculture/Horticulture

- ▶ Plants
- ▶ Waters
- ▶ Harvests



Relevant Skills

Retail jobs

- ▶ Stocks Shelves
- ▶ Straightens and Dusts Shelves
- ▶ Wraps Presents
- ▶ Hangs Clothing
- ▶ Folds clothes
- ▶ Assists Customers
- ▶ Returning Items
- ▶ Sizing/sorting clothes
- ▶ Cashier

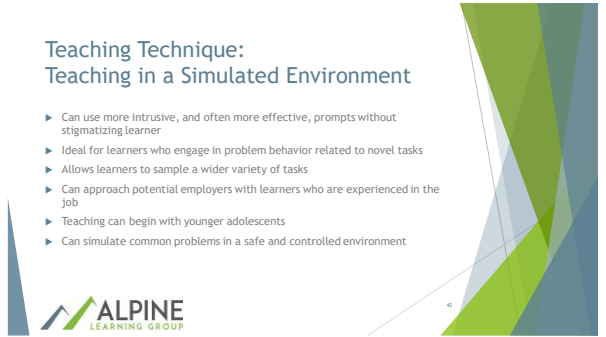
Office

- ▶ Files paperwork
- ▶ Sorts Mail, Delivers Interoffice Paperwork
- ▶ Collates, Assembles Mailings
- ▶ Edits a Proofread Text
- ▶ Laminates Paper
- ▶ Makes Copies
- ▶ Scans Documents
- ▶ Sends Faxes
- ▶ Takes Inventory & Fills Out a Supply Request Form
- ▶ Answers phones



Teaching Technique: Teaching in a Simulated Environment

- ▶ Can use more intrusive, and often more effective, prompts without stigmatizing learner
- ▶ Ideal for learners who engage in problem behavior related to novel tasks
- ▶ Allows learners to sample a wider variety of tasks
- ▶ Can approach potential employers with learners who are experienced in the job
- ▶ Teaching can begin with younger adolescents
- ▶ Can simulate common problems in a safe and controlled environment



Considerations for Simulated Jobs

- ▶ Make it as close to the environment where the behavior will be displayed as possible
 - ▶ Use real materials
 - ▶ E.g., if teaching setting a table at a restaurant, don't use plastic plates and utensils
 - ▶ Research how the job is actually done
- ▶ Interact as naturally as possible
- ▶ Do not use as a replacement for experiences in the community



Teaching Technique: Schedules

- ▶ Types:
 - ▶ Textual: Paper or electronic
 - ▶ Photographic
 - ▶ Photographic fit textual
 - ▶ Audio-taped



Making Appropriate Job Matches

EMPLOYEE CHARACTERISTIC ASSESSMENT

PURPOSE OF THESE ASSESSMENTS

HOW TO USE THESE ASSESSMENTS

SITE ASSESSMENT

PURPOSE OF THESE ASSESSMENTS

HOW TO USE THESE ASSESSMENTS



Purpose of These Assessments

- ▶ To aid clinicians in evaluating the appropriateness of potential jobs and volunteer opportunities for an individual with autism
- ▶ Meant to be used in conjunction with one another
 - ▶ Each section on the Site Assessment has a corresponding section in the Employee Characteristic Assessment

Acknowledgement: This program has been made possible through a grant from New York Collaborates for Autism from the proceeds of Comedy Central's 2012 *Night of Too Many Stars*.



How to use these assessments

- ❑ Complete an Employee Characteristic Assessment on the individual with autism. Be sure to include information from people who know the individual well, such as teachers and parents.
- ❑ Complete a Site Assessment on a potential job or volunteer opportunity for that individual.
- ❑ Compare the two assessments. Look at each section and determine how well they match.
 - ❑ If the responses are the same on most of the items, the job may be a good fit for the individual.
 - ❑ If there are many items that are different, then it may be warranted to: Teach pre-requisite skills, identify accommodations at the job site, or identify a new job site.
 - ❑ Other times, items on the two assessments may match, but a critical item may be different that will preclude placement in that job. For example, if the individual engages in loud vocal stereotypy, but the job environment is very quiet, such as a library, it may not be an appropriate job. For this individual, an environment, that can accommodate loud noise, may be a better fit.



Employee Assessment Section 1: History & General Info

- ▶ Work history
- ▶ Desired job
- ▶ Desired schedule
- ▶ Paid v. volunteer
 - ▶ Hours
 - ▶ Salary requirement

Desires paid position (select all that are acceptable)

Full-time

Part-time

Per diem

What wage does the person require?

Hourly rate

Salary

How often would the employee like to be paid? (select all that are acceptable)

Weekly

Bi-weekly

Monthly



Employee Assessment Section 2: Job Location

- ▶ What type of settings would be a good match for this person?
- ▶ Consider appropriate and desired settings
- ▶ Check all potential matches without concern for job responsibilities
- ▶ Example:

Education

Day Care

Elementary

Middle School/High School

College/University

Other



Employee Assessment Section 3: Job Responsibilities

- ▶ Check based on current skill set

Outdoor maintenance

Mowing lawns

Leaf blowing

Landscaping

Picking up litter

Pruning

Weeding

Shoveling snow

Watering

Other

Retail

Assisting customers (e.g. sales associates)

Collecting carts

Customer

"Outdoors"

De-training boxes (e.g. shoe boxes)

Folding clothes

Greeting customers

Hanging clothes

Organizing shelves

Returning items

Storing clothes

Storing shoes

Taking inventory

Unpacking boxes

Other

Manufacturing/Factory

Assembly—requires fine motor skills

Assembly—requires extensive fine motor skills

"Outdoors"

Food manufacturing

Fork lift/heavy machinery

Packaging

Quality control

Sewing

Other



Employee Assessment Section 4: Employee Characteristics

- ▶ Characteristics about the person that are important for their job success and satisfaction
- ▶ Transportation
- ▶ Flexible hours
- ▶ Indoor/ outdoor
- ▶ Clothing/uniform requirements
- ▶ Ability to complete varied tasks
- ▶ Long-term supports available
- ▶ Safety risks
- ▶ Ability to work around vulnerable populations
- ▶ Public vs. more secluded environment



Employee Assessment Section 4: Employee Characteristics

- ▶ Accessibility of exits
- ▶ Spaciousness of work environment
- ▶ Restroom accommodations
- ▶ Noise level
- ▶ Preference to be around others
- ▶ Preference for socializing with others
- ▶ Social interaction as a job requirement



Employee Assessment Section 4: Employee Characteristics

- ▶ Current skill set
 - ▶ Communication
 - ▶ Reading
 - ▶ Reading comprehension
 - ▶ Writing
 - ▶ Money
 - ▶ Math
 - ▶ Time
 - ▶ Technology
- ▶ Physical abilities
 - ▶ Endurance, lift/push/pull
 - ▶ Fine motor
 - ▶ Gross motor
- ▶ Successful prompting strategies



Employee Assessment Section 4: Employee Characteristics

- ▶ Attention to detail
- ▶ Sequencing
- ▶ Sanitary behavior
- ▶ Pace
- ▶ Problem behavior
- ▶ Special accommodations (e.g., extra breaks, fears)



Site Assessment

- ▶ Identical items to employee characteristic assessment, phrased as job requirements/offers
- ▶ Use as a guide during job interview and job development phase

Employee Assessment	Site Assessment
What type of accommodations does the employee require in the restroom?	What type of restrooms are available for the employee?
What noise level is appropriate for the employee to work in?	What is the noise level at the job site?
Does the employee choose to engage socially with others (e.g., small talk)?	If the employee chooses, are there any opportunities for social engagement (e.g., small talk)?



Interpreting Results

- ▶ Compare the employee's scores with the sites.
- ▶ How many of the site requirements match the employee's skills/desires?
- ▶ How essential are the items that do not match?
 - Likely that the employee could learn skills?
 - Anything missing from the site's offer that is important to the employee?



Custodial	Employee	Site
Cleaning	X	X
Cleaning windows		X
Recycling	X	X
Dusting		
Garbage collection	X	X
Mopping	X	X
Replenishing supplies	X	
Vacuuming	X	

- Employee completes 5/6 of job requirements
- Job uses 4/6 of the employee's skills



Sample Results 1

- ▶ Employee scores matched 46 out of 48 requirements for a job at Dunkin Donuts (96%)
 - ▶ Amount of social interaction required
 - ▶ Level of sanitary behavior required
 - ▶ Learned both skills and has been employed for 3+ years



Sample Results 2

- ▶ Employee scores matched 41 out of 43 requirements for a job at a chain restaurant (95%)
 - ▶ ...But manager switched job on first day
 - ▶ New job matched on 38 out of 43 items (88%)
 - ▶ ...But didn't match on major job functions or pace of work
 - ▶ We decided to leave after a few weeks
 - ▶ Employee now has very similar job to the original job and employee is over 95% independent



Alpine's Job Development Process: Making the Initial Connection

- ▶ Cold call vs. connection
- ▶ Networking ideas: Civic clubs (e.g., Rotary, Elks, chamber of commerce), family connections, agency connections, staff connections
- ▶ Give your network specifics
- ▶ Always have your employment-seeking goggles on



Alpine's Job Development Process: Meeting with Potential Employers

- ▶ Interview/job development meeting
 - ▶ Practice your spiel
 - ▶ Contact a job
 - ▶ Sell your support services
 - ▶ Know the benefits of hiring adults with autism
 - ▶ Be honest about any accommodations the employee may need
 - ▶ Inquire about terms on the Employer/Site Assessment
 - ▶ Leave something tangible
- ▶ Follow up
 - ▶ Perform the job yourself
 - ▶ Develop task analysis
 - ▶ Take photos/videos for materials
 - ▶ Understand the employer's standard for job performance
 - ▶ More closely analyze the job
 - ▶ Make final decision
- ▶ If desired by the company, conduct a training for their employees on what to expect from their new coworker & job coaches



And if everything works out...



Our learners' paid jobs

- ▶ Scanning document for community college
- ▶ Polishing silverware for country club
- ▶ Cleaning at a restaurant
- ▶ Cleaning and restocking at Dunkin Donuts
- ▶ Packaging promotional materials for software company
- ▶ Preparing tiles for showrooms for tile manufacturer
- ▶ Collecting recycling & garbage a rehab facility
- ▶ Delivering mail at a senior residence



Adapting Teaching Techniques for the Community



Considerations for Selecting Teaching Techniques

- ▶ Effective
- ▶ Discretion
- ▶ Logistics
- ▶ Cleanliness
- ▶ Policy



Photographic Prompts: Match to Sample



Modeling

- ▶ Supervisors often provide a model to employees
- ▶ Job coach may need to model multiple times for employee



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Video Modeling (Video 9)

- ▶ Providing an example for the learner to imitate (Charlop & Milstein, 1989)
- ▶ Each presentation is identical (unlike in vivo model)
- ▶ Options:
 - ▶ Watch before hand (priming)
 - ▶ Watch as performing step
 - ▶ Break into short video clips (video schedule)



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Making Cues Mobile: Electronic Schedules

- ▶ Numerous app options
- ▶ Incorporate text, photos, video, audio prompts
- ▶ Very typical
- ▶ Not appropriate for all settings/jobs
 - ▶ Working around liquids
 - ▶ Working around germs



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Making Cues Mobile: Pocket-sized Schedules



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Making Cues Mobile: Attach to Materials



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Making Cues Mobile: Attach to Wrist Band



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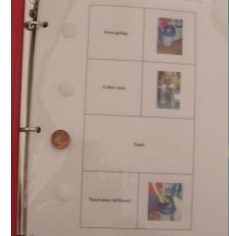
Making Accommodations to Work Around Deficits

- ▶ Sometimes hard to control environment at work
- ▶ Factors about setting may decrease employee's independence



Using Motivational Systems in Community Settings

- ▶ Individualized based on learners' preferences
- ▶ Incorporate money skills when appropriate
- ▶ Use reinforcers found in the community, when possible
- ▶ Discreet
 - ▶ Miniature token boards
 - ▶ Golf score counters
 - ▶ Tally counter apps
 - ▶ Incorporate within schedules



Motivational Systems: Remote Activated (Video 10)

Chiming Vibrating Personal Pager
enablingdevices.com



Simulating Training

- ▶ Ask to borrow materials / Buy identical materials
- ▶ Helpful if you (or someone else) provide other services to the person
- ▶ Simulate challenging social interactions



In Summary...



Questions





THANK YOU

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References

- ▶ Charlop, M. H. and Milstein, J. P. (1989). Teaching autistic children conversational speech using video modeling. *Journal of Applied Behavior Analysis*, 22: 275-285. doi:10.1901/jaba.1989.22-275
- ▶ Gerhardt, P. F., & Weisz, M. J. (2011). Behavior analytic interventions for adults with autism spectrum disorders. In E. A. Mayville & J. A. Mulick (Eds.), *Behavioral foundations of effective autism treatment* (217-232). Cornwall-on-Hudson, NY: Sloan Publishing.
- ▶ Latimore, L. P., Parsons, M. B., & Reid, D. H. (2006). Enhancing job-site training of supported workers with autism: A reemphasis on simulation. *Journal of Applied Behavior Analysis*, 39, 91-102.
- ▶ MacDuff, G. S., Krantz, P. J. and McClannahan, L. E. (1993). Teaching children with autism to use photographic activity schedules: maintenance and generalization of complex response chains. *Journal of Applied Behavior Analysis*, 26: 89-97. doi:10.1901/jaba.1993.26-89

