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Preparing Adolescents for Adult Life

Transforming Possibilities into Abilities

Mission for Educating Children with Autism

You are an Essential Piece...
Presentation Objectives

- To identify challenges working with adolescents with autism
- Identify practical programmatic solutions to meet challenges
  - What to teach
  - How to teach it
- Identify resources to support independent function in the community
- Establish quality of life as a Transition Outcome
Where Do We Stand?

- 67% of families surveyed had no knowledge of available transition programs and settings;
- 83% relied on family members as their primary source of transition planning assistance;
- 78% were unfamiliar with agencies or professionals that might assist in job development;
- 74% stated that they wanted to work but were currently unemployed;
- 19% of individuals with autism were employed at the time of the survey;
- 74% of those employed worked less than 20 hours per week; and
- 85% still lived with parents, siblings, or older relatives.

Source: University of Miami/Nova Southeastern University CARD 2008
So Where Do We Stand?

- Make his or her own life decisions
  14% vs. 85%
- Have friends in the community
  17% vs. 57%
- Have a spouse or life partner
  9% vs. 51%
- Be valued by their community
  18% vs. 50%
- Participate in recreational activities
  20% vs. 50%

Source: www.EasterSeals.com
Why are we here?

- Lack of appropriate transition programs
- Lack of adequately trained staff
- Lack of a life long learning hierarchy
- Lack of community access
  - Integration
  - Transportation
  - Housing
- Lack of Quality of Life as transition outcome
How do we change this?

Effective
Functional
Community-based

Transition Programs

... and where do we start?
Essential Elements to Effective Community-Based Programming

♫ Principals of ABA
♫ Functional relevance
♫ Community immersion
  › TYPICAL experience
  › Teaching in the natural environments
♫ Environmental adaptations
♫ Technology
♫ Community partnerships
♫ Dyads / Triads
♫ Strong family involvement / communication
ABA is a field of inquiry dedicated to investigating and modifying behavior in a systematic way.

- Data-based
- Analytical
- Able to be replicated
- **Socially Important** *(community)*
- **Contextual** *(functional relevance)*
- Accountable
Applied Behavior Analysis is a vast scientific discipline based upon over 35 years of published research.

Applied Behavior Analysts develop interventions that are based upon empirically validated research and best practices for both skill acquisition and behavior reduction.

Applied Behavior Analysis interventions:
- Highlight relevant stimuli while simultaneously minimizing extraneous stimuli
- Recognize the power of positive reinforcement
  Functionally, determined, contingent, continual, intermittent
“If we don’t do this right, we don’t live with the consequences of our mistakes, but our students and families do.”

James O’Brien 2009
The Obvious

Skills of Daily Living

Vocational Skills

Leisure Skills

Hygiene

Functional Communication

Money Skills

Social Skills

Alternatives to Maladaptive Behaviors

Navigation TRAINING
The Not So Obvious

CONFIDENCE

COPING MECHANISMS

COMMUNITY CULTURES

CHOICE CONTROL

SAFETY INCLUDING SEXUAL SAFETY

HAPPINESS

BEING TYPICAL APPEARANCE
Regardless, whatever you teach, ask the Core Questions:

- What is the functional relevance of the skill being taught to the student’s short or long term life goal?

- What is the social significance (value) of the skill?

“If the student does not learn to do the task, will someone else have to do it for them?”

Lou Brown 1983
Community-based Instruction

Teaching in the Natural Environment
- Natural vs. Contrived circumstances
- Responding to naturally occurring cues in the environment

Promotes flexibility and coping skills

Community immersion
- Driven by frequency and duration

Promotes integration in the community
- Navigation
- Socialization
- Production
Community Success Requires a 3-D Approach

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# 3 Tier Task Analysis - Purchase

<table>
<thead>
<tr>
<th>Typical Task Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk into the store</td>
</tr>
<tr>
<td>Locate a basket</td>
</tr>
<tr>
<td>Get a basket</td>
</tr>
<tr>
<td>Navigate in the store</td>
</tr>
<tr>
<td>Locate an item</td>
</tr>
<tr>
<td>Put Item in basket</td>
</tr>
<tr>
<td>Fail to locate an item</td>
</tr>
<tr>
<td>Locate a clerk</td>
</tr>
<tr>
<td>Ask for help</td>
</tr>
<tr>
<td>Say, “Thank you”</td>
</tr>
<tr>
<td>Navigate in the store</td>
</tr>
<tr>
<td>Locate an item</td>
</tr>
<tr>
<td>Put the item in basket</td>
</tr>
<tr>
<td>Proceed to the register</td>
</tr>
<tr>
<td>Production</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Get a basket</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Put the item in a basket</td>
</tr>
<tr>
<td>Fail to locate an item</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Put the item in a basket</td>
</tr>
</tbody>
</table>
Essential Element ...

Community Partnerships

- Community Organizations
  - Lions Club International
  - Rotary Club
- Churches and Faith-based Groups
- Businesses
  - Chamber of Commerce
- Community Clubs
  - Sports Leagues /
  - Enthusiasts and Hobbyists
  - Fitness Centers / YMCA
Community Partnerships

- Independent: 70%
- Community Support: 30%
Community Partnerships

- Don’t be shy about asking for, and pulling in favors
- Capitalize on your contacts and network
- Consider accessing communities of faith and service organizations for community support
- Put yourself out there… People do things for people!
- Get comfortable with disclosure… Love me; love my cause
- Educate as well as advocate
Essential Element ...

Intensity of Teaching

- Sufficient opportunities to practice
- Limitation of number of goals
- Frequency and duration data
- Maximize every educational moment
Intensity

- At age of 5-teaching receptive ID for animals 20 sets of 10 trials per week over 3 weeks (≈600 trials)
- At age of 16-teaching purchasing at McDonald’s once a week

To achieve the same level of “intensity”... over 11 years of instruction for purchasing
Intensity

- Repetitive presentation - CAPS: Comprehensive Autism Planning System (Shawn A. Henry, M. S., and Brenda Smith Myles, Ph.D)
- Limit IEP goals (5-7 goals)
- At least 3+ opportunities per week for skill acquisition
- Across environments (home, school, and community)
**CAPS: Comprehensive Autism Planning System**

**Student: Monday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Targeted Skills to Teach</th>
<th>Structure/ Modifications</th>
<th>Reinforcement</th>
<th>Sensory Strategies</th>
<th>Communication/Social Skills</th>
<th>Data Collection</th>
<th>Generalization Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:45-9:00</td>
<td>Unpack computer</td>
<td>Locate Locker Unpack Bag</td>
<td>Name on Locker</td>
<td>Verbal praise Pre-selected reinforcers</td>
<td></td>
<td>greetings</td>
<td>duration</td>
<td>Independent skills across settings</td>
</tr>
<tr>
<td>9:00-9:20</td>
<td>Sign-in</td>
<td>Print name (Recognize Name)</td>
<td>Sign-in sheet</td>
<td>Verbal Praise Pre-selected reinforcer</td>
<td>Defined area for writing name</td>
<td>Recall Questions</td>
<td>TA</td>
<td>Write name legibly at functionally appropriate time</td>
</tr>
<tr>
<td></td>
<td>Hygiene</td>
<td>Brush Teeth Wash Face Brush Hair Deodorant Follow written list (fluency/chores)</td>
<td>Written schedule Electric toothbrush Electric razor Video modeling Choose preferred items/activity to type</td>
<td></td>
<td>Electric TB Colored sleeve</td>
<td>Talk about how his face feels, rough/smooth when he needs to shave based on feel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arranges daily schedule</td>
<td>Type reinforcer/functional list</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TA</td>
<td>Typing Functional lists (grocery list, etc.)</td>
</tr>
<tr>
<td></td>
<td>Typing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TA</td>
<td>Typing Functional lists (grocery list, etc.)</td>
</tr>
<tr>
<td>9:20-9:40</td>
<td>Ride from PAAL to Carrabas</td>
<td>Safety Social (recall) Wait for turn Functional communication</td>
<td>Written scripts/ phrasing</td>
<td>Social praise Pre-selected reinforcers</td>
<td>“wh” questions about his day/activities</td>
<td>Frequency data</td>
<td>Across people/ settings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work at Carrabas</td>
<td>Time on task Follow written list Self-reinforcement Self-monitoring</td>
<td>Written schedule Massed practice timer</td>
<td>Pre-selected reinforcer</td>
<td>Break as needed</td>
<td>Greetings Requesting Help Interaction with staff</td>
<td>“Carrabas” Data sheet</td>
<td>Generalize skills across various work settings</td>
</tr>
<tr>
<td>10:50-10:55</td>
<td>Walk to Giant</td>
<td>Pedestrian safety Social (recall) Functional communication Navigating in the community</td>
<td>General prompts Massed practice written script/ phrases modeling prompts</td>
<td>Verbal praise</td>
<td>Physical move (walk to Giant)</td>
<td>“wh” questions</td>
<td>TA</td>
<td>Across stores/people</td>
</tr>
</tbody>
</table>

**Note:**
- **TA**: Task Aide
- **PAAL**: Personal Assistant for Autism
- **Carrabas**: Restaurant
- **GB**: General Behavior
- **PS**: Personal Safety
- **GC**: Group Communication
- **MC**: Multi-communication
Essential Element ...

Family Involvement / Communication

- Close communication between school, home, and community
  - Wiki Space
  - Comprehensive IP
  - Student summary page
  - Supervision across settings
  - Parents/consultants visit
  - IEP attendance by ALL STAFF
Secure personal web page
  › IEP
  › Daily communication
  › Window to the community
  › Graphs
  › Data sheets
  › Instructional plan
  › Clinical page
Essential Element...

Environmental Adaptation
Independent Functioning

**in·de·pen·dent**
Pronunciation: in-de-'pen-dent
Function: adjective
1. not dependent: not requiring or relying on others (as for care or livelihood)
   <independent of her parents>

Drive a car
Cooking
Leisure activities
Shopping

**interdependent**
Pronunciation: In-ter-di-pen-duh nt
Function: Adjective
1. mutually dependent; 2. depending on each other.

Taking the bus
Follow a recipe
Using a PDA / Blackberry
Asking for help
Environmental Adaptation

Buttoning

Organization
Environmental Adaptation

Tying Shoes  Money
Environmental Adaptation
Essential Element ...

Technology Use

Video Modeling

MP4 Player/Watch

PDA/ Smartphone
Purpose: promote independence and increase social acceptance by reducing stigma associated with one-on-one instructions and physical prompts in the community
Bluetooth®

Uses auditory prompts through Bluetooth earpiece for purchasing (locating items, waiting in line, and paying for items with a credit card).
Bluetooth®

Results

Locate Items (Participant 1)

- # of p
- distance

Frequency

Distance (ft)

Session
Wait (participant 1)

- Frequency
- # of p
- distance

Session

Distance (ft)
Bluetooth
Bluetooth
A computer based program that provides sequential visual and auditory prompts.

Runs on a handheld pocket PC (c.f. PDA).

Can greatly improve independence by fading proximity and prompts.

©2009 AbleLink Technologies, Inc.
1. Schedule indicates that it is time to make lunch.

2. Pocket Compass is programmed to automatically open. The student chooses what they want to prepare.

3. Software prompts the student through the task using a visual/written or video task analysis.

4. Pressing the “ALL DONE” button takes the student back to the schedule or software can be programmed to automatically reinforce with music, games, or video.
Purpose: increase independence by reducing the need for constant support from others. Promotes social acceptance and reduces stigma by replacing cumbersome augmentative communication and schedule systems (Velcro and pictures) with devices used everyday, by everyday people.
Communication

- Microsoft Power Point® - make your own AAC program!
- Pictorial and Auditory prompts
- Portable/ Easily accessible
- Customization
- Inexpensive
- Effective communication
Communication

Proloquo2go ®

http://www.proloquo2go.com/
PDA/Smartphone
Auditory Prompts

- **MP4 player watch**: reduce stigma associated with one-on-one instructions (close proximity and physical prompts) by providing auditory prompts via watch during the workout routines at the local fitness center.

LIZ nEW WORKOUT.mp3
MP4 Player/IPod™
Results

Workout with MP4 Player (participant 1)

Percentage of Independent Completion

Sessions

\, 6, 11, 16, 21, 26, 31, 36

Baseline  MP4  w/o MP4  MP4

winter break
Auditory Prompts

Results

Workout

<table>
<thead>
<tr>
<th>Date</th>
<th>MP4 Player</th>
<th>w/o</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/29/2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/19/2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/8/2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/28/2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/18/2008</td>
<td></td>
<td></td>
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<tr>
<td>1/1/2009</td>
<td></td>
<td></td>
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<tr>
<td>1/27/2009</td>
<td></td>
<td></td>
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<tr>
<td>1/17/2009</td>
<td></td>
<td></td>
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<tr>
<td>2/16/2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8/2009</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Winter break

Percentage of Independent Completion
### Workout with MP4 Player (participant 1)

- **Baseline**
- **MP4**
- **w/o MP4**
- **MP4**

### Workout with MP4 Player (participant 2)

- **Baseline**
- **MP4 Player**
- **w/o**
- **MP4**
MP4 player
Video
Positive Outcome of MP4

Affect (Workout)

- Red: with watch
- Blue: without watch
Purpose:
Improve independence by using video modeling to facilitate imitation via digital picture frames and portable DVD players.
Interventions

- Priming
- Video Modeling - visual prompts
- Full/Partial prompts from behind
- Gestural prompts to attend to Video
- Systematic prompt fading
- Social praise for attempt/completion of the steps
- Delayed reinforcers upon completion of all TA
The Video Model
Tooth Brushing Baseline
Tooth Brushing with Intervention Video Modeling
Video Modeling Results

Brush Teeth (participant 3)

<table>
<thead>
<tr>
<th>Session</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td></td>
</tr>
<tr>
<td>VM</td>
<td></td>
</tr>
<tr>
<td>VM w/o</td>
<td></td>
</tr>
<tr>
<td>Video Modeling (VM)</td>
<td></td>
</tr>
<tr>
<td>VM</td>
<td></td>
</tr>
</tbody>
</table>

The chart shows the percentage of brushing over sessions for participant 3 under different conditions: Baseline, VM, VM w/o Video Modeling, Video Modeling (VM), and VM.
Yesterday ... Today ... Tomorrow
Essential Element ...

Dyad / Triad Instruction

- Targeting the future
  - Limited funding
  - Limited services
  - No one-on-one instruction

- Programming
  - Pairing of students
  - Geographic location
  - Staff training
  - Fading proximity
Dyad / Triad Instruction
Hanger & Cooney (2005) interviewed the supervisors of 14 successfully employed individuals with autism to examine their supervisory practices and their perceptions of employees with autism. Supervisors evaluated their employees with autism highly, and qualitative analysis found that a set of specific supervisory accommodation strategies were commonly associated with successful supervision. These included:

- maintaining a consistent schedule & set of job responsibilities; (activity schedules/task analysis)
- using organizers to structure the job (visual supports)
- reducing idle or unstructured time (DRA)
- being direct when communicating with the employee, and (present a clear and accurate Sd)
- providing reminders and reassurances (prompting and reinforcement)
Ready ... Set ... Work !!!
Quality of Life as an Outcome

- Choice
- Competency
- Control

Home
Friends
Money
Health
Leisure
Safety
Work
Happy
Other Considerations

- Instruction starts where the need begins.
- Resources
- Staff Training
  - “Knowing” and “Doing” are two different repertoires. Philip N. Hineline, Ph.D., BCBA, Temple University
- Ongoing Staff Development
- Risk / Benefit Analysis