Making It Work: Teaching Students with Autism Spectrum Disorders Sustainable Skills That Translate Beyond the Classroom
Participants will:

• Understand what functional, sustainable skills are and why it is important to teach them.
• Learn informal and formal ways to assess functional skills.
• Identify strategies to teach students skills to cope with challenging contexts.
• Develop a plan for systematically teaching functional skills to their students.

Objectives

What are functional skills?

• More than being taught concepts
• Transforming concepts into skills
• Knowing when and how to apply skills in multiple real life contexts

Those skills and abilities needed to operate confidently, effectively and independently in life, community and work.

“So, What” Test

<table>
<thead>
<tr>
<th>Skill</th>
<th>Functional Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put pegs in peg board</td>
<td>Put quarters in vending machine</td>
</tr>
<tr>
<td>Use a paragraph organizer</td>
<td>Make a personal grocery list</td>
</tr>
<tr>
<td>Put rain symbol on calendar</td>
<td>Take a coat when it rains</td>
</tr>
<tr>
<td>Know 500 sight words</td>
<td>Discriminate between men and women’s bathroom</td>
</tr>
<tr>
<td>Play Duck Duck Goose perfectly</td>
<td>Socialize with peers at lunch</td>
</tr>
</tbody>
</table>

Principles of Functional Skills

Should be integrated into the curriculum.
Must be relevant and allow learners to engage with real situations in the real world.
Learners need opportunities to:

• use their skills for real purposes
• engage with the world beyond the classroom
• make choices and decisions, think creatively and act independently
• experience success in real situations as a result of using their skills effectively

Retrieved from: National Curriculum
What are sustainable skills?

- Capable to endure, keep going
- To competently maintain
- To maintain long term with minimal negative impact

“True sustainability is being capable of being continued indefinitely with positive long-term impact on individual and the environment.”

Functional, Sustainable Skills

Those enduring skills and abilities that are needed by an individual in order for them to operate confidently, effectively and as independently as is possible in all aspects of their life so that the individual can make a positive, long-term impact on their current and future environment.
Functional, Sustainable Skills

- Meaningful to individual
- Meaningful to personal community
- Prepare for future environments
- Facilitate independence
- Must be learned beyond “knowledge” level
- Pass the “so, what” test

Functional, Sustainable Skills?

- Correctly completing 15 algebra equations on a daily basis?
- Correctly determining cost of ala carte lunch on a daily basis?
- When very frustrated, get up and go to designated quiet area until calm?
- *Try quietly breathing in and then out to count of three – 5 times- to calm self.*
In order for a skill to be sustainable and functional:

- Recall/complete all steps in order
- Initiate/complete steps with optimal independence
- Analyze/adjust for given environment with optimal independence
- Achieve mastery

Impediments to Mastery

- Acquisition Deficits – cognitive/academic, social, communication, behavior skills
- Performance Deficits - can’t vs. won’t, motivation, consistency
- Fluency Deficits - lack of practice, speed of execution, depth/strength of performance
- Competing Deficits - sensory, impulsivity, emotions, challenging behaviors
Assessing Functional Skills

1) Informally observe student and interview teachers/parents
2) Use of standardized adaptive measures
3) Look at challenging behavior student might be exhibiting

Are there other functional skills that can be taught to the student to replace problem behavior?

Criteria for Identifying “Functional” Skills:
1) Age-Appropriate?
2) Required now?
3) Required as an adult?
4) Useful?

Assessing Functional Skills

Criteria for Identifying “Functional” Skills:
5) Valued by the student and family?
6) Enhancing the student’s status?
7) Important for community participation?
8) Likely to be acquired?


Formal Assessments of Adaptive Behavior

*Functional skills* – “skills that will allow students to participate in in-school and out-of school activities with other students of the same age.”

(Maryland Coalition for Inclusive Education, Inc., 2004)

Adaptive Behavior – “the collection of conceptual, social, and practical skills that have been learned by people in order to function in their everyday lives” (Luckasson et al., 2002, p. 73)
### Instrumental Conceptual Skills

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Conceptual Skills</th>
<th>Social Skills</th>
<th>Practical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scales of Independent Behavior – Revised (Bruininks, Woodcock, Weatherman, &amp; Hill, 1996)</td>
<td>Community Living Skills</td>
<td>Social Interaction and communication skills</td>
<td>Personal living skills</td>
</tr>
<tr>
<td>Comprehensive Test of Adaptive Behavior – Revised (Adams, 2000)</td>
<td>Language concepts and academic skills; Independent living</td>
<td>Social skills</td>
<td>Self-help skills; Home living</td>
</tr>
</tbody>
</table>

### Identifying Functional Skills based on Problem Behavior

- *Contextual Assessment Inventory (CAI) for Problem Behavior* (McAtee, Carr, Schulte, 2004)
- Look at situations where student may be more likely to exhibit problem behavior
Identifying Functional Skills based on Problem Behavior

- Biological - (e.g., medication side effects; feeling frightened, worried, anxious, agitated; feeling hungry/thirsty)
- Activities/Routines - (e.g., transitions between activities/settings; termination/lack of access to a preferred activity; activities/routines that are difficult, frustrating, disliked, boring)
- Social - (e.g., denial of access to what the student wants; lack of attention; being disciplined or reprimanded)

Mitigate and Cope (Ladd, 2007)

- After determine contextual variables around problem behavior can develop intervention
- MITIGATE - the adult (e.g., parent, teacher) makes environmental modifications to context
- COPE - the student is taught skills to “cope” with the context
Mitigate and Cope (Ladd, 2007)

Example – BIOLOGICAL:

• CAI indicates that Johnny is likely to have problem behavior when he is hungry
• Mitigate – teacher schedules an extra snack time for Johnny during the day
• Cope – Johnny is taught to indicate on a visual when he is feeling hungry

Mitigate and Cope (Ladd, 2007)

Example – ACTIVITIES/ROUTINES:

• CAI indicates that Suzy is more likely to have problem behavior when she has to end a preferred activity
• Mitigate – teacher gives uses visual timer to indicate when preferred activity is going to end
• Cope – Suzy is taught to request a new preferred activity that is appropriate
Mitigate and Cope (Ladd, 2007)

Example – SOCIAL:
• CAI indicates that George had more problem behavior when told “No, that’s wrong”
• Mitigate – teacher said “Try again” instead of “No, that’s wrong”
• Cope – George is taught to ask for help when he faces a difficult problem

Intervention Strategies

• Remember, when we intervene, the goal is to not just mitigate the situation by altering the student’s environment
• We need to TEACH the student ways to cope and acquire functional sustainable skills
• Lets talk about the kinds of skills we can teach for different contexts…
Biological

• Frightened
• Agitated
• Hungry
• Thirsty
• Medication side effect
• Anxious
• Tired

Coping Skills – Biological

Teach to:
- identify and/or communicate feelings
- distract themselves
- ask for help
- use relaxation strategies
- make choices
Emotion Scales

Circle the highest and lowest for today:

| ANGER SCALE |
|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 |
| calm | bothered | irritated | frustrated | angry | rageful |

- assists with identifying emotions
- various stages of one emotion
- increases emotional vocabulary

Retrieved from: www.parentcoachplan.com

### My ANGRY Scale

<table>
<thead>
<tr>
<th>Rating</th>
<th>Looks/Sounds Like</th>
<th>Feels Like</th>
<th>I Can Try To</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Swearing, Breaking stuff, Clenched Teeth, Wide eyes</td>
<td>I have to break something, I want to explode</td>
<td>Ask someone to help me leave and take a walk with me to calm down enough to talk</td>
</tr>
<tr>
<td>4</td>
<td>Swearing under breath, Twisting things</td>
<td>I am mad</td>
<td>Leave the room with permission and go to a safe place to calm down</td>
</tr>
<tr>
<td>3</td>
<td>No talking, Pacing, Breathing a little heavy</td>
<td>I am upset</td>
<td>Go get a drink and come back to the room</td>
</tr>
<tr>
<td>2</td>
<td>Scowling face, Keeping to self, Still interacting when asked</td>
<td>I am irritated</td>
<td>Use deep breathing Tell someone how I feel</td>
</tr>
<tr>
<td>1</td>
<td>Nothing different</td>
<td>I am a little anxious</td>
<td>Use deep breathing</td>
</tr>
</tbody>
</table>
Personal Toolkit

- **Physical** (walk, bounce ball, rock, massage, leave room)
- **Relaxation** (draw, read, music, quiet spot, stress ball)
- **Social** (visit with someone, help classmate, work with peer)
- **Thinking** (self-talk, antidote card, logi/perspective questions, object that prompts relaxation)
- **Tension Release** (finish)

Relaxation Techniques
Progressive Muscle Relaxation

HANDS & ARMS

FACE & NOSE

ARMS & SHOULDERS

STOMACH

JAW

LEGS & FEET


Cognitive Restructuring

• “Flipping the Pancake”*

• Cognitive Behavior Therapy for Kids - Curriculum

*Eileen Rings – Schalmont CSD

NYS
Activities and Routines

• A preferred activity ends or is no longer possible.
• Activities or routines that are difficult, frustrating, disliked or boring.
• Activity is too long.
• Having to wait.
• Transitions between settings or activities.

Coping Skills – Activities and Routines

• Functional Communication Training
  – More time
  – “All Done”
  – Break
• Choosing a transition/waiting item
• Self talk
Activities or routines that are difficult, frustrating, disliked or boring.

Functional Communication Training

Escape Motivated / Attention Motivated

– Requesting a break
– Requesting assistance or asking for help
Having to wait
Teaching Tolerance

• “Teaching tolerance involves progressively delaying reinforcement after a student makes a request, while at the same time encouraging the student to persist through important activities by gradually increasing demands.”

  • Bambara & Kern, 2005
Transitions between settings or activities

"I don't mind school, except the part between welcome back and have a nice summer."
Antecedent Cue Strategy

• Use of external prompts to guide behavior
  – Picture checklists or schedules
  – Auditory prompts
  – Power Point/IPOD
  – Self-statements

• Useful for students who know how but not when
Preparing for Change

• Priming through use of visuals
• Introduce through positive changes
• Alternate positive, neutral, negative

http://www.iidc.indiana.edu/?pageId=409
Social

- Arguing with other people
- Not enough attention
- Trouble communicating wants or needs
- Being told “no”
- Being corrected

Coping Skills - Social

- Initiating conversations
- Social problem solving
- Making decisions
- “Keeping your cool”
Initiating Conversation Strategy

P - Prepare ahead
A - Ask yourself what you will talk about
T - Time it right
H - Hello (say a greeting)
S - Signal (nonverbal cues)

Conversation Starter Chart

<table>
<thead>
<tr>
<th>Scenario</th>
<th>P Recall information from Personal file</th>
<th>A Ask yourself what you are going to say</th>
<th>T Check Timing</th>
<th>H Start with a Hello</th>
<th>S Use good nonverbal Signals</th>
<th>Start the conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see Diane standing alone on the playground</td>
<td>Diane is leaving in one week for a vacation in NY</td>
<td>I will say &quot;How are your vacation plans coming along?&quot;</td>
<td>Diane is alone and appears not to be busy. Good time to talk.</td>
<td>&quot;Hi, Diane.&quot;</td>
<td>Smile Body turned toward her Friendly voice Good eye contact</td>
<td>&quot;Hi, Diane. How are your vacation plans coming along?&quot;</td>
</tr>
</tbody>
</table>
Strategies to Initiate Conversation

- Use movies that have good examples
- Watch peers (with permission)
- Create and practice scripts
- Role Play
- Practice in real life situations

SOCIAL PROBLEM SOLVING
Social Problem-Solving Skills

• Knowing what is needed and asking for assistance
• Apologizing
• Accepting consequences
• Deciding what to do in social situations

Making Decisions

• Ability to make choices
  – Choice boards
  – Visuals
  – Verbal discussion
• Ability to attach consequences to choices
• Ability to differentiate between socially appropriate and inappropriate consequences
Graphic Organizer
Problem Solving

Problem

Choice 1
- Possible Result

Choice 2
- Possible Result

Result

Teacher yelled at me for being late

Refuse to do math work

Sit down and breath deeply

Get send to office to get yelled at by principal

Have to do work later

Learn math lesson and get work done in class
Solution Organizer

- Get emotions in check
- What is the problem?
- What are possible solutions & consequences of each?
- What is the best solution?
- Act on decision and assess

What is the problem? ________________________________________________________________

One solution is: _________________________________________________________________

Another solution is: ______________________________________________________________

Consequence: _________________________________________________________________

Consequence: _________________________________________________________________

Action: ________________________________________________________________
Identifying Functional Skills based on Problem Behavior

When identifying functional skills to replace problem behavior remember:

- It may help to think about skills you or a same-aged peer might use to “cope” in a similar context
- Student needs to be able to use the skills just as effectively as they use their problem behavior

When Teaching Replacement Behaviors:

- Teach in same situation that provokes problem behavior
- Teach in conjunction with antecedent interventions
- Teach alternative skill prior to problem behavior
From Task Acquisition to Independence

Initial Assessment

- Where to start?
- What are your goals for your student?
- Prompt dependence?
- Current level of functioning?
- Skill deficit or performance deficit?
What are the antecedents that are driving your student's behavior?
### What typically happens?

<table>
<thead>
<tr>
<th>Activity/Event</th>
<th>Cue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recess</td>
<td>Slide, Swings, Monkey Bars</td>
</tr>
<tr>
<td>Play</td>
<td>Peer</td>
</tr>
<tr>
<td>SRA</td>
<td>Book</td>
</tr>
<tr>
<td>End of Art class</td>
<td>Dirty Hands</td>
</tr>
<tr>
<td>End of the period</td>
<td>Ringing bell</td>
</tr>
<tr>
<td>Finished stocking shelf</td>
<td>Empty box</td>
</tr>
</tbody>
</table>

### Prompting Procedures

Help learners acquire skills by systematically providing and removing assistance so that learners begin to perform skills independently.

Based upon the specific needs and characteristics of individual learners with ASD.
Errorless Learning

• Identify prompts that will ensure success.
• Should allow for an opportunity for independence
• Increases opportunities for reinforcement
• Limits incorrect responses
Least to Most Prompting

- At least three levels
- Provides opportunity to respond without prompts
- Reinforcement must be used

Wait-Position-Model-Gesture-Ask-Say-Do
Prompt Hierarchy for Spontaneous Language – Data Sheet
GOAL: To increase spontaneous language.
1) Give over-arching statement to class
2) WAIT a minimum of 5 seconds.
3) POSITION the item in front of the child and wait another 5 seconds.
4) MODEL the desired response or explicitly point out another student who is demonstrating the response.

5) GESTURE at the item that the child needs and wait 5 seconds.
6) ASK the child “what do you need to say?” and wait 5 seconds.
7) Tell the child “SAY I want pretzels please” and wait five seconds.
8) Prompt the child to DO as you requested.
Guidelines

• Most To Least (with delay) = learning history unknown
• Most to Least or Most To Least (with delay) = child makes errors
• Least To Most = have positive history with this type of technique
• Progress monitoring is key!

Tips for Using Prompts Effectively

• Prompts should be as minimal as possible
• Prompts should be faded as quickly as possible
  – Adjust hierarchy according to data collected
## Requesting a Break: How to Fade Prompts

<table>
<thead>
<tr>
<th>Phase</th>
<th>Prompt Level 1</th>
<th>Prompt Level 2</th>
<th>Prompt Level 3</th>
<th>Prompt Level 4</th>
<th>Student Response</th>
<th>Adult Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Math Class</td>
<td>Teacher gestures toward break card on corner of desk</td>
<td>Teacher says &quot;Tell me break&quot;</td>
<td>Physically prompt learner to point to picture of &quot;break&quot;</td>
<td>Points to &quot;break&quot;</td>
<td>Allows student to spend time away from work</td>
</tr>
<tr>
<td>II</td>
<td>Math Class</td>
<td>Teacher gestures toward break card on corner of desk</td>
<td>Teacher says &quot;Tell me break&quot;</td>
<td></td>
<td>Points to &quot;break&quot;</td>
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<td>Math Class</td>
<td></td>
<td></td>
<td></td>
<td>Points to &quot;break&quot;</td>
<td>Allows student to spend time away from work</td>
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## Task Analysis
Task Analysis

- Process of breaking skills down into smaller, more manageable parts.
- Used to teach skills that may be too challenging to teach all at once.
  - Self help skills
  - Life skills
  - Academic skills
- Individual skills are needed for completion of entire behavior.

Chaining

- Based on task analysis
- Helpful in assisting students to learn a routine task that is repetitive
- Forward or backward
Forward Chain

- The initial steps are taught first.
- Assistance is offered at all other steps.
- Reinforcement is provided after student completes initial steps.

Backward Chain

- The student is taught the final step first.
- Assistance offered at all other steps.
- Targeted skill leads immediately to the reinforcer connected to completing the entire chain.
- After last step is mastered, each previous step in the chain is added.
Step Analysis

Lists the steps that will eventually take the student from his/her present level of performance to the final desired behavior.

These levels of skill should be progressively more demanding.

http://www.behavioradvisor.com/Shaping.html
Shaping

• Based on step analysis
• Successively closer approximations of a behavior are reinforced
• Reinforcement provided once student is successful at each step.
• Increases chances for success when expected behavior goal is too difficult.

• Desired Behavior: John will complete all problems on his math worksheet.

SUBSTEPS

• Present Behavior: John has done his math homework one time in the last month.
Desired Behavior: John will complete all problems on his math worksheet.

- John will complete all problems except for one.
- John will complete either all the odd numbered problems or all the even numbered problems.
- John will complete five problems of his choice.
- John will complete one problem of his choice.
- John will write his name on the top of the worksheet.

Present Behavior: John has done his math homework one time in the last month.

It’s not going to be easy…

- Strategies that promote independence should be embedded in instruction and in the natural environment.

- Independent performance should be targeted across several domains.

- Key is to simultaneously increase student engagement while decreasing adult prompting.
Remember…

• Skills must be sustainable and functional.
• Use of formal and informal assessments assist in identifying functional and sustainable skills
• Individuals with autism must be taught some skills that other children learn casually.
• Students should be taught strategies that help them cope in challenging everyday situations
• Skills need to be taught to students in a systematic manner that includes a plan for promoting independence