Strategies to Motivate:
*Using Positive Approaches to Teach Social, Academic, and Daily Living Skills to Individuals with ASD*

Professional Development and Parent Seminar 2010-2011

Objectives

**PARTICIPANTS WILL:**

- Gain a better understanding of the theories of motivation in individuals with ASDs
- Understand reinforcement principles and how the principles are applied for use in motivating individuals with ASDs
- Recognize evidence-based practices and tools for increasing motivation in students with ASDs in multiple settings
Can’t or Won’t?

Motivation (n.) 1. the act or an instance of motivating; 2. desire to do; interest or drive; 3. incentive or inducement; 4. the process that arouses, sustains, regulates human and animal behavior.

Why Are We Motivated?

- Minimize physical pain
- Maximize pleasure
- Fulfill needs (eating, drinking)
- Obtain a desired object, hobby, goal, state of being, ideal
- Less-apparent reasons such as altruism, selfishness, morality, or avoiding mortality
Early Motivation Research

- **Motivating Autistic Children**
  (Koegel & Egel, 1979)
- “*In general, autistic children appear very unmotivated.*”

Theories of Motivation & Autism

- Lack of success in environment?
  - “Boring tasks”
  - Learned helplessness
  - Use of prompting to increase success
  - Create win-win situations
- Is it a lack of motivation or just a different kind of motivation?
- Social motivation?
- Competing sensory motivators?
- Neurodevelopmental deficits relating to reward system or executive functioning?
Mirror Neurons

With Peers: Social Motivation

- Evidence supporting lack of social motivation
  - Observations
    - Disinterest in peers
    - Less responsive to verbal praise
  - Joint attention (social sharing) deficits
    - Joint attention vs requesting (Vismara & Lyons, 2007)
Social Motivation & ASD

• Do all individuals with ASD lack Social Motivation?
• How does Social Motivation in ASD relate to other theories of autism, like Theory of Mind?

Wyatt’s Account – Autism: The Musical
The “False Belief Test”

The Sally Ann Test

[Diagram of Sally Ann scenario]

Figure 3.1 The Sally Ann scenario (reproduced from Baron-Cohen, Leslie and Frith, 1985; with kind permission).
Wyatt appears to want friends but doesn’t appreciate that as a condition of making and keeping friends, he might have to talk about their interests too (lizards and dinosaurs with Henry)…he lacks Theory of Mind

With Peers: Social Motivation

- Are “Theory of Mind” deficits related to social motivation?
- No clear answers
Can’t or Won’t?

Skill vs Performance Deficits
Skill vs Performance Deficits
(Bellini, 2008)

**SKILL ACQUISITION DEFICIT:** DOES NOT POSSESS SKILL
– Intervention: teach skills

**PERFORMANCE DEFICIT:** POSSESSES SKILL BUT DOES NOT PERFORM THE SKILL
– Intervention: enhance performance

*Be careful not to assume that lack of performance is a performance deficit!!!*

Jason
Skill vs Performance Deficits

5 QUESTIONS to ASK (Bellini, 2008)
1) Does the child perform the skill across multiple settings and persons?
2) Does the child perform the skill without support or assistance?
3) Does the child perform the skill fluently and effortlessly?
4) Does the child perform the skill when reinforcement is provided?
5) Does the child perform the skill when environmental modifications are made?

Skill vs. Performance Deficits

The nature of ASD requires us to continually be thinking whether or not the student lacks a skill or the motivation...we need to constantly re-evaluate

It could be both...
PRINCIPLES OF REINFORCEMENT

Definitions

- Reinforcement: when an event following a response causes an **increase** in the probability of that response occurring in the future
- Punishment: when an event following a response causes a **decrease** in the probability of that response occurring in the future
Reinforcement Definitions

**Positive Reinforcement**

The **ADDITION** of something (tangible object, attention, etc.) preferred that makes the likelihood of the target response occurring in the future **INCREASE**

**Negative Reinforcement**

The **REMOVAL** of something non-preferred (task, attention, etc.) that makes the likelihood of the target response occurring in the future **INCREASE**

Considerations When Using Reinforcement

(Cohen & Sloan, 2007)

- **New Skill**
  - Reinforcement should be continuous

- **Some Learning**
  - Can slowly begin to decrease reinforcement

- **Learned Skill**
  - Reinforcement should be random
Selecting motivators
(Delmolino & Harris, 2004)

• Assessing reinforcers:
  – Watch: types of activities, how long child plays unprompted, how does child respond when removed
  – Can collect data to help
  – More formal assessments

• Pairing
• Think outside the box

Free or Inexpensive Rewards for Individual Students

• Elementary students:
  – Choose which homework problem the teacher will give the answer to for a freebie
  – Work as the Principal apprentice for 20 minutes
  – Teach the class a math lesson

• Secondary students:
  – Dress as the school mascot during a game
  – Learning how to do something of interest on the computer (animation, graphics, CAD)
  – Getting to cut the principal’s tie off (use loop to frame student’s face on a bulletin board of fame)
Considerations When Choosing Motivators  
(Delmolino & Harris, 2004)  
• Motivational Operation – motivation and reinforcement constantly changing!!

Considerations When Using Reinforcement  
(Cohen & Sloan, 2007)  
• Reinforcement appetite – be aware of what the individual wants!  
• The amount, quality, and intensity of reinforcement should match the amount of effort  
• Artificial → Natural when ready
Considerations When Choosing Motivators
(Delmolino & Harris, 2004)

• *When is reinforcer most powerful?*
  – *D* (Deprivation)
  – *I* (Immediate)
  – *S* (Size)
  – *C* (Contingent)

Bribes

• Bribery is giving or promising a child a reward **AFTER** they have begun to behave badly.
• Often involves negotiation and begging
Mother Takes Control of the Situation
Controversy Over the Use of Reinforcement in Schools

Should Kids Be Bribed to Do Well in School? – Time Magazine, April 2010

• Harvard economist named Roland Fryer Jr. used mostly private money to pay 18,000 kids a total of $6.3 million
• Chicago, Dallas, Washington and New York
• Some kids were paid for good test scores, others for not fighting with one another
• In city where he expected biggest impact – ZERO
• In 2 other cities modest results but in different ways
• Last city….
Should Kids Be Bribed to Do Well in School? – Time Magazine, April 2010

Kids who got paid all year performed significantly better on their standardized reading tests at the end of the year. Statistically speaking, it was as if those kids had spent three extra months in school, compared with their peers who did not get paid.

Should Kids Be Bribed to Do Well in School? – Time Magazine, April 2010

• “Kids should learn for the love of learning… but they’re not. So what shall we do? …Most adults work primarily for money, and in a curious way, we seem to be holding kids to a higher standard than we hold ourselves.”
Intrinsic vs Extrinsic

- **Intrinsic Motivation**: The incentive to undertake an activity based on the expected enjoyment of the activity itself, rather than external benefits that might result.

- **Extrinsic Motivation**: The desire or push to perform a certain behavior based on the potential external rewards that may be received as a result.
Strategies to Motivate

Using Visual Supports
(Cohen & Sloan, 2007)

WHAT
• Objects or Pictures
• Token System
• Puzzle Boards

WHEN
• Activity Schedules
• Color Cues
• Clocks and Timers
• Token Systems

HOW MUCH
• Task Chart
• Money Charts

WHERE
• Written Schedules
• Photographs

WHO
• Photographs

WHY
• Power Cards
• Social Stories
I want

big wheel
golf
trampoline
bubble blower
sand and water table
sidewalk chalk

Not All Pizzas Are Created Equal.
Social Narratives

Jeff and Matt Hardy are rule breakers on WWE. They are acting when they break the rules on TV. When Jeff and Matt go to school they follow the rules. They also follow the rules at home. When Jeff Hardy has to do something that the teacher tells him to do he does not complain. He knows that the teacher is in charge and sometimes he has to do things he doesn’t want to do. Matt Hardy does not tell people he is bored when he is doing something at school. Matt and Jeff Hardy follow the rules and then they get to have fun when they are done with their work.

I will be like Jeff and Matt Hardy. I will follow the rules at home. I will follow the rules at school. I will do what my teacher says without complaining. I will have fun when I’m done with my work and get a reward for following directions.
Mr. James  Ms. Denise  Mrs. Barbara

NYS
Strategy for Completing Homework

- Child chooses order in which to complete homework assignments in each subject
- Child completes a subject’s assignment and sets timer for 5 to 10 minutes
- Child is free for those minutes to do whatever he/she wishes
- Timer rings and child returns to table and completes the next subject’s assignment
- Re-set timer between each subject’s assignments until work is complete

TO DO LIST
Survey of English Literature Term Paper
Due: April 28th

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
<th>Completed</th>
<th>Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 18</td>
<td>Check for supplies: index cards, computer paper, printer cartridge</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Mar 20</td>
<td>Meet with Prof. to advise on topic choice</td>
<td>☑</td>
<td>snack</td>
</tr>
<tr>
<td>Mar 20-30</td>
<td>Research topic of library</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Apr 1-6</td>
<td>Organize notes and draft outline for paper</td>
<td>☑</td>
<td>30 min video games</td>
</tr>
<tr>
<td>Apr 9-16</td>
<td>Share outline with tutor, revise, begin writing draft</td>
<td>☑</td>
<td>Order fav pizza for dinner</td>
</tr>
<tr>
<td>Apr 17-24</td>
<td>Finish draft, share with tutor</td>
<td>☑</td>
<td>30 min video games</td>
</tr>
<tr>
<td>Apr 28-30</td>
<td>Revise draft and print final copy</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Apr 28</td>
<td>Turn in final copy to Professor in class</td>
<td>☑</td>
<td>Buy new game for Xbox 360</td>
</tr>
</tbody>
</table>
## Behavioral Momentum

- Take note to office/teacher
- Ask a peer to play/read/draw activity
- Be a leader
- Visit with principal
- Trip to treasure chest
- Choose a snack
- Choose a 5 min. activity
- School wide sticker
- Computer time by self
- Short break
- Alternative activity
- Computer with a friend
- Extra sharing time
- More time for selected activity
- Free ticket to sporting event
- Time alone
- Independent work space
- Alternative assignment
- Out to lunch with TBA
- Class recess, free time, or popcorn party
- New school/art supplies
- Get out of school early
- Class recess, free time, or popcorn party
- New school/art supplies
- Get out of school early

## Matching Intervention to Function

<table>
<thead>
<tr>
<th>Wants attention</th>
<th>Wants item/activity</th>
<th>Wants to escape attention</th>
<th>Wants to avoid something</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take note to office/teacher</td>
<td>Trip to treasure chest</td>
<td>Computer time by self</td>
<td>Short break</td>
</tr>
<tr>
<td>Ask a peer to play/read/draw activity</td>
<td>Choose a snack</td>
<td></td>
<td>Alternative activity</td>
</tr>
<tr>
<td>Be a leader</td>
<td>Choose a 5 min. activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visit with principal</td>
<td>School wide sticker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trip to treasure chest</td>
<td>Computer time by self</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choose a snack</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choose a 5 min. activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School wide sticker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer time by self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer with a friend</td>
<td>More time for selected activity</td>
<td>Time alone</td>
<td>Alternative assignment</td>
</tr>
<tr>
<td>Extra sharing time</td>
<td>Free ticket to sporting event</td>
<td>Independent work space</td>
<td></td>
</tr>
<tr>
<td>More time for selected activity</td>
<td>Free ticket to sporting event</td>
<td>Time alone</td>
<td>Alternative assignment</td>
</tr>
<tr>
<td>Free ticket to sporting event</td>
<td>Time alone</td>
<td>Independent work space</td>
<td></td>
</tr>
<tr>
<td>Time alone</td>
<td>Independent work space</td>
<td>Alternative assignment</td>
<td></td>
</tr>
<tr>
<td>Independent work space</td>
<td>Alternative assignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Behavioral Contracts
(Modified from Polsgrove, 1979)

- Select the target behaviors
- Establish performance criteria
- Reach an agreement with the child on rewards for meeting criteria
- Determine when rewards delivered
- Determine method for evaluation of performance
- Provide performance feedback
Creating Behavior Report Cards

- Intervention Central:

  www.interventioncentral.org

  Lots of examples of how to write contracts and the site will automatically create an individualized behavior report card when you input variables.

Mystery Motivators

“Mystery Motivators” is a recognition tool based on a lottery-like system that allows a person to select from a variety of high and low valued prizes for their engagement in targeted positive behaviors. In particular, each day targeted positive behaviors are achieved; a person can select the corresponding day on a weekly chart. If the day contains a Mystery Motivator symbol (unknown to participants), the person can select a reward from the Mystery Motivator reward menu.
At Home

Mystery motivators (Gentry & Luiselli, 2007)
- Assess preferred/nonpreferred foods
- 2 sections of preferred food and one section nonpreferred on plate
- Child instructed to spin and when landed on number put on chart, “I need to eat ___ bites of food.”
- Needed to eat that number of bites from each section then could have what wanted
- Also included “reward chart” for after meal
- If landed on “Mystery Motivator” immediately received surprise item
- Numbers systematically increased

At School

- Writing task
  - Spin game piece
  - Student must write the number of sentences that came up on spinner
  - Land on the mystery space either you get a free pass on writing or a very big reward
  - Gradually teacher increases numbers on game piece
  - Reward for sentences written or reasonable attempts
Using A Mystery Motivator at Home or School

Is This a Motivating Environment?
Teaching Methods: Increasing Motivation

Pivotal Response Training
- Choice
- Self-management
- Including mastered items in new learning trials
- Increased the rate of learning acquisition
- Increased the generalizability of the learning

Pivotal Response Training (PRT)  
Koegel et al.

- PRT – uses developmental approach and ABA procedures
- Goal – provide opportunities for learning within child’s natural environment
- Pivotal areas – areas when targeted lead to large changes in other often untargeted areas of functioning and responding
- 5 pivotal areas: motivation, responsively to multiple cues, self-management, self-initiations, and empathy
Using Learner Choice

PRT Videos

www.autisminternetmodules.org

PRT MOTIVATION PROCEDURES
Supported Play Dates
(Koegel, Werner, Vismara, & Koegel, 2005)

- Compared play dates with and without contextual support
- Contextual Support:
  - mutually reinforcing activities
  - Adult facilitator set up cooperative arrangements (i.e. when baking one hold measuring cup, one pours) *then stepped back*
- Increased reciprocal interactions, higher levels of enjoyment, interest, and comfort, and more invitations to play dates in contextual support group!

Using Peers to Increase Social Motivation

Some of the benefits of using peer-mediated social programs…

- More frequent, higher quality interactions with classmates
- Increased opportunities to receive and provide social support
- Development of new friendships and supportive relationships
- Increased social competence and improved social skills
- Increased independence and self-determination

(Carter, Hughes, Copeland, & Breen 2001; Copeland, et al., 2004; Hughes, et al., 2001; Kamps et al., 1998; Köhl & Meyer, 1994)
Encourage Joint Attention

- Research by Vismara & Lyons (2007) showed that when parents played with their children using PRT principles and toys matching special interests the children were more likely to engage in social sharing.
- Additionally, the researchers found that children still had greater rates of social sharing when parents used special interest and non-special interest toys together than when they used just non-special interest toys alone.

Strength-based Model

(Winter-Messiers et al., 2007)

- Special Interest Areas (SIAs): “Those passions that capture the mind, heart, time, and attention of individuals with AS, providing the lens through which they view the world.”
- Analyzed interview data from individuals with Asperger Syndrome, ages 7 to 21, and their parents.
Strength-based Model
(Winter-Messiers et al., 2007)

- Social – motivated to share own interests and fascinations
- Communication – talking fluently about own interests
- Emotions – using own interest and enthusiasm to cope with difficulties
- Sensory-motor – enthusiasm for activities (ex. computer) that require fine-motor skills
- Executive function – using special interests to teach organizational skills

Strength-based Model
(Winter-Messiers et al., 2007)

- SIAs in School
  - Creating math problem where child calculates how many tons of food a dinosaur consumed in a day
- SIAs at Home
  - Using fascination with the color red to clean up toys by putting them into red bins
- SIAs in the Community
  - Using singing talents to become choir member of local chamber singing group
Examples of Using Strengths in the Classroom

(Winter-Messiers et al., 2007)

<table>
<thead>
<tr>
<th>PSYCHOLOGY</th>
<th>READ MARY LINCOLN: WIFE AND WIDOW. WHAT WAS THE VIEW OF MENTAL ILLNES IN MARY LINCOLN’S DAY?</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRITING</td>
<td>WRITE ESSAY DESCRIBING HUMANITARIAN CAUSE YOU WOULD CHOOSE AS 1ST LADY AND HOW YOU WOULD USE YOUR INFLUENCE TO BRING NATIONAL ATTENTION TO YOUR CAUSE.</td>
</tr>
<tr>
<td>SPELLING</td>
<td>CHOOSE 10 WORDS FROM YOUR BOOKS ON LINCOLN THAT ARE NO LONGER IN USE. INVESTIGATE THEIR ETYMOLOGY.</td>
</tr>
<tr>
<td>SPEECH</td>
<td>CHOOSE YOUR FAVORITE 1ST LADY AND PORTRAY HER IN A FIRST-PERSON SPEECH.</td>
</tr>
<tr>
<td>MATH</td>
<td>FIND THE BIRTH AND DEATH DATES OF ALL FIRST LADIES, CALCULATE THEIR AGES AT DEATH, AND PLOT. FIND THE AVG.</td>
</tr>
<tr>
<td>SCIENCE</td>
<td>HOW DOES THE NAT MUSEUM OF AMER HISTORY PRESERVE ITS COLLECTION OF 1ST LADIES INAUGURAL GOWNS?</td>
</tr>
<tr>
<td>ART</td>
<td>CONSTRUCT A MINI MODEL OF YOUR 1ST LADY’S INAUGURAL GOWN OR A WHITE HOUSE ROOM OF THAT ERA.</td>
</tr>
</tbody>
</table>

Power Cards

(Gagnon, 2001)

- A visual aid developed by educators and parents
- Assist students with ASD in making sense of social situations, routines, the meaning of language, and the hidden curriculum
- Uses the individual’s special interests
Power Card for Cheyanne

Excerpt from "Autism and Asperger Syndrome: Classroom Strategies that Really Make a Difference!" by Elise Gagnon

1. Think before you say anything. Say it in your head first before saying it out loud.
2. If you can't think of anything nice to say, don't say anything.
3. You do not have to say every thought out loud that you think.

When kids who love Elvis remember these three things, Elvis says, "Thank you, thank you very much!"

Using an SIA to Identify and Manage Emotions

The Anger Thermometer

Furious
Angry
Cross
Irritated
Calm

5 4 3 2 1 0

Exploding

NYS
Remember!

• Don’t assume what motivates one child motivates another – assess!!!
• Use visuals
• Use peers
• Use special interests

• And BE CREATIVE!!!

Questions?

Center for Autism and Related Disabilities
Phone: (518) 442-2574 or toll free 1+(866)-2574
Email: card@albany.edu
Website: http://www.albany.edu/psy/autism
CARD Albany is now on Facebook
http://www.facebook.com/cardalbany

Required Coursework for Special Education Professionals now online – “Responding to the Needs of Students with ASD”
http://www.albany.edu/psy/autism/Training_flyer_web_format.pdf