

# Social Skills and ABA: Using a Functional Assessment and Conceptual Analysis to Guide Treatment

## National Autism Conference 2018

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# Goals

- ▶ Employ a functional assessment to select socially valid targets for intervention
- ▶ Develop social skills which are functional equivalents for problem behavior
- ▶ Use a conceptual analysis of the stimuli that occasion and maintain simple and complex social skills to develop teaching strategies
- ▶ Target socially valid social behaviors

# Goals

- ▶ Manipulate consequences within the training session to reinforce new behaviors which are functional equivalents for problem behavior
- ▶ Train parents to prompt and reinforce new behaviors which are functional equivalents for problem behavior
- ▶ Communicate effectively with teachers and other key players in the community to encourage entrapment–reinforcement in natural settings

# Social Skills

- ▶ “Social skills are the specific behaviors when interacting with others.”
- ▶ Social skill deficiency is a defining characteristic of autism.
- ▶ (Rutherford et al., 2004)

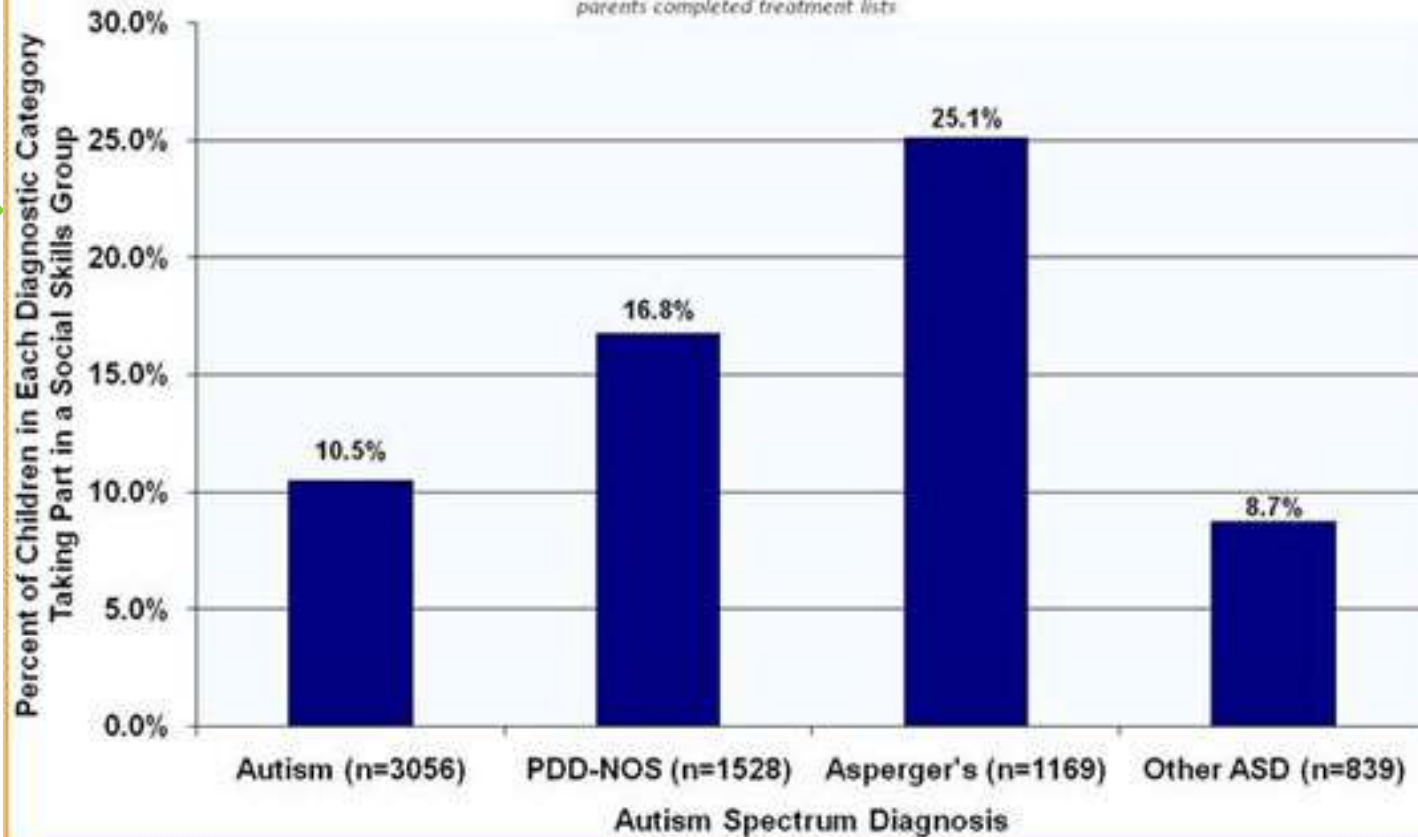
# Possible Outcomes of Social Skills Deficiencies

- ▶ Students who lack social skills are at risk for:
  - Aggression
  - Peer rejection
  - Loneliness
  - Social dissatisfaction
  - Academic failure
  - School drop-out
  - Contact with the legal system
  - Substance abuse
  - Difficulty maintaining employment and relationships

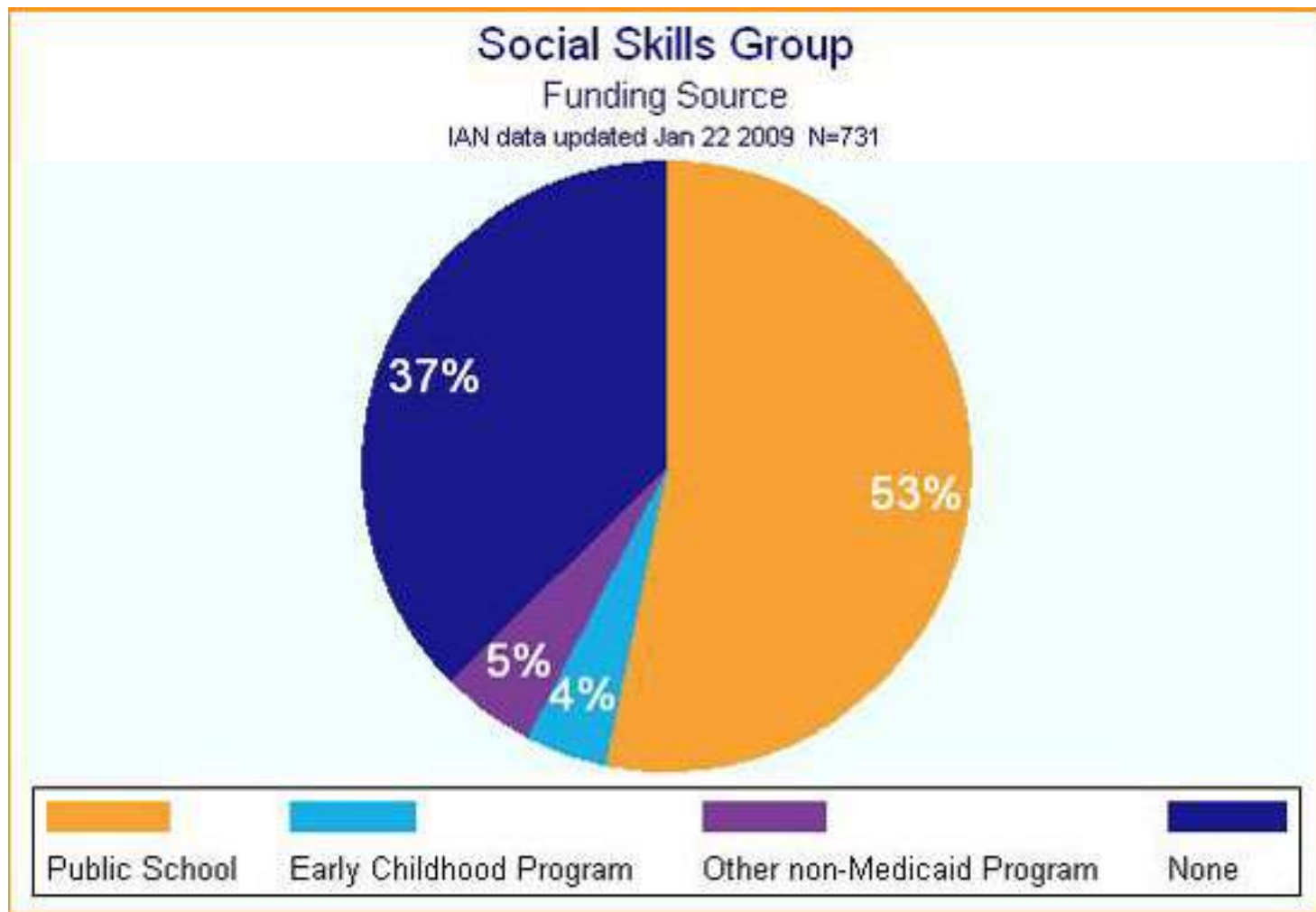
▶ (Maag, 2006; Rutherford, et al., 2004)

## Use of Social Skills Groups by Autism Spectrum Diagnosis

based on IAN data as of 1/22/09; n=6,592  
children with autism spectrum disorders whose  
parents completed treatment lists



- ▶ Interactive Autism Network (2011, February 15) *Ian Research Findings: Social Skills Groups*. Retrieved 8/6/2017 from [https://www.iancommunity.org/cs/ian\\_research\\_reports/treatment\\_series\\_social\\_skills\\_groups](https://www.iancommunity.org/cs/ian_research_reports/treatment_series_social_skills_groups)



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# Who Provides Group Social Skills Instruction?

- ▶ 14 pages of options in the Milwaukee Area based on a Google Search
- ▶ Behavior Interventions
  - Primary (Whole School)
  - Secondary (Group)
  - Tertiary (Function Based)
- ▶ Cognitive–Behavioral Therapy
- ▶ Interpersonal Therapy
- ▶ Medical Interventions
- ▶ Group and Individual Counseling
- ▶ (Bulliset al., 2001)



# What is Provided?

- ▶ Variety of Different Services and Activities are termed “Social Skills Groups”
- ▶ “You wouldn’t believe what they are calling social skills”
- ▶ Social Thinking Curriculum is being adopted by many local school districts

# What is Ineffective or Unproven?

DISCUSSION AND REVIEW PAPER

## Social Thinking®: Science, Pseudoscience, or Antiscience?

Justin B. Leaf<sup>1</sup> • Alyne Kassardjian<sup>1</sup> • Misty L. Oppenheim-Leaf<sup>2</sup> • Joseph H. Cihon<sup>1</sup> •  
Mitchell Taubman<sup>1</sup> • Ronald Leaf<sup>1</sup> • John McEachin<sup>1</sup>

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**Abstract** Today, there are several interventions that can be implemented with individuals diagnosed with autism spectrum disorder. Most of these interventions have limited to no empirical evidence demonstrating their effectiveness, yet they are widely implemented in home, school, university, and community settings. In 1996, Green wrote a chapter in which she outlined three levels of science: evidence science, pseudosci-

has been utilized by behaviorists and non-behaviorists. This commentary will outline Social Thinking® and provide evidence that the procedure, at the current time, qualifies as a pseudoscience and, therefore, should not be implemented with individuals diagnosed with autism spectrum disorder, especially given the availability of alternatives which clearly meet the standard of evidence science.

# Conclusions about Social Thinking® (Leaf, et. al. 2016)

1. Two published studies and both have “serious methodological flaws”
2. “...qualifies as a Pseudoscience”
3. “unestablished intervention” according to National Autism Standards phase 2 (2015)
4. Not behavioral (change thoughts), not technical (lacks procedures), not conceptually systematic
5. Recommending or endorsing may violate ethical guidelines
6. School districts should not implement, recommend, nor endorse
7. Social defecator and the school district

# Social Skills Training for Youth With Emotional and Behavioral Disorders and Learning Disabilities: Problems, Conclusions, and Suggestions

John W. Maag

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Teaching social skills to students with emotional and behavioral disorders and learning disabilities has become an accepted practice. Social skills training (SST), however, has often resulted in only modest and sometimes no changes in students' social competence. One of the main reasons is that acknowledged problems have been largely ignored. The purpose of this article is to examine those problems both conceptually and critically and to suggest that research begin to focus on replacement behavior training as a possible way to increase the effectiveness of SST.

# Maag (2005)

Examined limited gains with Social Skills Intervention and identified 3 main problems:

1. Behaviors that are not socially valid were often targeted for training
2. Functional Replacements for problem behavior were not targeted
3. Training techniques rarely matched to “reasons youngsters fail”(skills set)

Only small changes in peer acceptance were documented (one of the most importance components of social acceptance)

# Obligation of a BCBA in Social Communication Skills Instruction in Groups

- ▶ It is essential that Behavior Analysts design and implement social communication skills programming that conforms to the core principles of ABA and scientific evidence (Baer et al. 1968; Green 1996; Normand 2008)



# Reducing Problem Behavior

## Functional Assessment

- ▶ A set of procedures used to identify the **cause** of maladaptive or socially punishing behavior and reduce it through teaching replacement behaviors instead of suppressing it through punishment
- ▶ Empirical and scientific literature which supports these methods is found in the field of Applied Behavior Analysis



# Functional Assessment

- The outcome of the functional assessment is an analysis of how a person learned the maladaptive behavior (causes) and how it is presently maintained in the current environment.
- This allows selection of evidence based methods specific to the identified causes to replace, reduce or eliminate the problem behavior.

# Why is Functional Assessment Valuable?

- ▶ In other disciplines, interventions or treatments are sometimes based on form rather than function with programmed consequences based on form.
- ▶ This can result in interventions that strengthen the maladaptive behavior instead of reducing it or ineffective treatment. Teaching a social skill or rule without regard to what maintains current maladaptive behavior may not be successful.
- ▶ Instead, a functional assessment leads to identification of the behavior by its function (cause) and then selection of treatments or interventions which are effective in reducing behavior in the specific functional category identified.

# History of Functional Assessment

- ▶ The term functional refers to the causes of behavior.
- ▶ B.F. Skinner was the first to use the term function when referring to the “causes” of behavior.
- ▶ He discarded cause and effect in favor of functional in an effort to precisely talk about behavior.

# History of Functional Assessment

- ▶ Skinner suggested that maladaptive as well as adaptive behaviors demonstrated functional relationships related to antecedents and consequences which was the basis for future analysis of behavior



# History of Functional Assessment

- ▶ In the 1970–1980's a protocol for conducting functional assessment was developed to address the severe self-injury of persons with developmental disabilities
- ▶ Dr. Tedd Carr (1977) and Dr. Brian Iwata developed a protocol for classifying and selecting treatments based upon “function” at the University of Florida

# History of Functional Assessment

- ▶ The protocol has been refined and has been the subject of hundreds of research publications appearing mostly in journals devoted to practice of Applied Behavior Analysis
- ▶ The research has extended the analysis beyond self-injurious behavior of developmentally disabled persons to include persons with all types of behavior disorders, many different behaviors across all cognitive levels—including social skills

# Functions of Behavior

## 1. Socially Mediated Positive Reinforcement (SMPR)

Access to items and activities act as reinforcer

Attention acts as reinforcer

## 2. Socially Mediated Negative Reinforcement (SMNR)

Removal of stimulus acts as reinforcer

## 3. Automatic Positive Reinforcement (APR)

Behaviors produce stimulation that acts as a reinforcer

## 4. Automatic Negative Reinforcement (ANR)

Removal of some bodily stimulation acts as a reinforcer  
(Pain Reduction) Usually treated medically

# Evidence-Based ABA Procedures to Teach Social Communication Skills



REVIEW PAPER

# The Effectiveness of Social Skills Training Groups for Individuals with Autism Spectrum Disorder

Matthew Hotton<sup>1</sup> • Sarah Coles<sup>2</sup>

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© The Author(s) 2015. This article is published with open access at Springerlink.com

**Abstract** Autism spectrum disorder (ASD) is characterised by social difficulties that can have a negative impact on an individual's psychological and social wellbeing. To date, reviews of social skills training groups have mainly focussed on children, rather than adolescents and adults. This review aimed to critically evaluate studies published in the past 20 years that had used group-based social skills training to improve the social skills of adults and/or adolescents with ASD. Thirteen studies were identified, and group-based social skills training was generally effective at improving so-

## Introduction

### The Nature of Social Difficulties in Autism Spectrum Disorder

The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5) proposes 'impaired social interaction and communication' as key criteria for the diagnosis of autism spectrum disorder (ASD; American Psychiatric Association 2013). This reflects the combined nature of social interaction and communication difficulties in ASD. Social skills can be

## Effectiveness of Social Skills Groups for Adolescents and Adults (Hotton and Coles, 2016)

- ▶ Peer review journals from 1994 to 2014
- ▶ Identified 230 studies of which 13 met inclusion criteria
- ▶ Individuals with ASD without intellectual impairment
- ▶ Social Skills Rating System
- ▶ Social Responsiveness Scale
- ▶ Test of Adolescent Social Skills Knowledge
- ▶ Autism Diagnostic Observation Schedule

## Effectiveness of Social Skills Groups for Adolescents and Adults (Hotton and Coles, 2016)

- ▶ “Social Skills Treatment Groups show promising potential as being effective for improving social skills of adolescents and adults.”
- ▶ UCLA PEERs program most compelling
- ▶ Improvements in social interaction, social skills knowledge and friendship quality
- ▶ Improvements in mental health outcomes and quality of life
- ▶ Details on curricula used varied
- ▶ More research and better controlled research needed

## Social Skills Training for Youth With Emotional and Behavioral Disorders and Learning Disabilities: Problems, Conclusions, and Suggestions

John W. Maag

*Department of Special Education and Communication Disorders  
University of Nebraska-Lincoln*

Teaching social skills to students with emotional and behavioral disorders and learning disabilities has become an accepted practice. Social skills training (SST), however, has often resulted in only modest and sometimes no changes in students' social competence. One of the main reasons is that acknowledged problems have been largely ignored. The purpose of this article is to examine those problems both conceptually and critically and to suggest that research begin to focus on replacement behavior training as a possible way to increase the effectiveness of SST.

# Recommendations (Maag, 2006)

- ▶ Generate a list of target social skills with caregivers and learners to increase social validity
- ▶ Use a functional analysis to teach appropriate social replacement skills for problem behavior
- ▶ Focus on peer groups
- ▶ Promote entrapment--recruiting natural communities of reinforcement
- ▶ Peers/Siblings/Parents/Teachers reinforce performance of a socially appropriate target behavior

# Recommendations (Stokes & Baer, 1977)

Multiple exemplar training across teachers, stimuli, and environments (Stokes & Baer, 1977) to enhance generalization.



# The National Autism Center's and National Standards Project 2015

Findings and Conclusions  
ADDRESSING THE NEED FOR  
EVIDENCE BASED  
PRACTICE GUIDELINES FOR  
AUTISM SPECTRUM DISORDERS

# NAC PROJECT

## Goals:

1. To provide an update to the previous project, NSP1, published as the National Standards Report in 2009. Specifically, NSP2 reviews peer-reviewed intervention outcome studies for children/adolescents/young adults with autism spectrum disorder (ASD) since the publication of NSP1. The dates of peer-reviewed studies range from 2007 to 2012.
2. To extend the review of intervention outcome literature to include adults (22 years and older) with ASD.
3. To incorporate relevant feedback received regarding NSP1 categorization. The NSP2 report is intended to be more specific than the NSP1 report regarding the interventions it identifies as beneficial.
4. To assist parents, caregivers, educators, and service providers in understanding how to integrate evidence-based interventions into a well-rounded, individualized educational or behavioral program.

<http://www.nationalautismcenter.org/resources/>



# Established Treatments

- ▶ Behavioral Interventions
- ▶ Cognitive Behavioral Intervention Package
- ▶ Modeling
- ▶ Peer Training
- ▶ Natural Teaching Strategies
- ▶ Parent Training
- ▶ Scripting
- ▶ Social Skills Package
- ▶ Story-based Intervention

# *A Meta-Analysis of Video Modeling and Video Self-Modeling Interventions for Children and Adolescents With Autism Spectrum Disorders*

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**ABSTRACT:** *This meta-analysis examined the effectiveness of video modeling and video self-modeling (VSM) interventions for children and adolescents with autism spectrum disorders (ASD). Twenty-three single-subject design studies were included in the meta-analysis. Intervention, maintenance, and generalization effects were measured by computing the percentage of nonoverlapping data points (PND). Results suggest that video modeling and VSM are effective intervention strategies for addressing social-communication skills, functional skills, and behavioral functioning in children and adolescents with ASD. Results also indicate that these procedures promote skill acquisition and that skills acquired via video modeling and VSM are maintained over time and transferred across persons and settings. The results suggest that video modeling and VSM intervention strategies meet criteria for designation as an evidence-based practice.*

# Bellini (2007) Findings:

- ▶ 23 studies
- ▶ Video Modeling and Video Self-Modeling (VSM) are effective intervention strategies for teaching social-communication skills, functional skills, and behavioral functioning
- ▶ Effectively promote skills acquisition, maintenance and transferred across persons and settings
- ▶ Self or prestigious peer, independent execution, contact reinforcement

## Social Skills Interventions for Individuals with Autism: Evaluation for Evidence-Based Practices within a Best Evidence Synthesis Framework

Brian Reichow · Fred R. Volkmar

Published online: 5 August 2009  
© Springer Science+Business Media, LLC 2009

**Abstract** This paper presents a best evidence synthesis of interventions to increase social behavior for individuals with autism. Sixty-six studies published in peer-reviewed journals between 2001 and July 2008 with 513 participants were included. The results are presented by the age of the individual receiving intervention and by delivery agent of intervention. The findings suggest there is much empirical evidence supporting many different treatments for the social deficits of individuals with autism. Using the criteria

Social difficulties should differentiate children with autism spectrum disorders (ASD) from those with other developmental disorders (Klin et al. 2007) and are more heavily weighted than other areas in current (DSM-IV and ICD-10) diagnostic approaches (American Psychiatric Association 1994; World Health Organization 1994). Difficulties in the social arena typically remain an area of great vulnerability even for the most cognitively able individuals on the autism spectrum (Howlin 2005; Shea and Mesibov 2005).

# Reichow and Vollkmer (2010)

- ▶ Key components of an effective social group:
  - Mean age of 10 years
  - Clinic based
  - Minimum of one session per month for 12 months
  - Medium and higher cognitive levels

# Established Treatments

- The literature clearly identifies Behavioral Skills Training as an effective training package for teaching multiple step skills (Johnson et al., 2005, Gross, Miltenberger, Knudson, Bosch, & Breitwieser, 2007, Lumley, Miltenberger, Long, Rapp & Roberts, 1998, Wallace, Doney, Mintz–Resudek, & Tarbbox, 2004, Sarokoff and Sturmey, 2004).

# Behavioral Skills Training Model

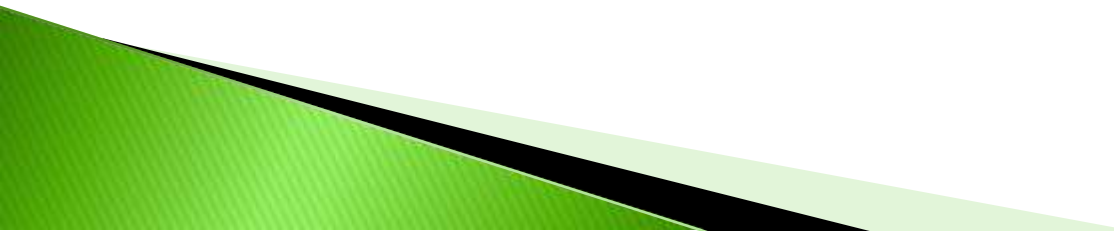
- ▶ Definition and Guided Instruction
- ▶ Identifying Situations when the Skill may be used
- ▶ Both Positive and Negative Examples (Modeling)
- ▶ Role Playing
- ▶ Performance Feedback and Reinforcement for Skill use
- ▶ Strategies for Transfer
- ▶ (Bullis, 2001; Rutherford, et al., 2004)

# Transfer the Technology

- ▶ Transfer of Social Skills through collaboration and communication with parents/school in Early Childhood and Elementary school
- ▶ Self Monitoring may be a viable intervention in middle school and high school
- ▶ Research supports the use of self monitoring with teacher matching for middle school students (Lloyd et al., 2006)



# Social Opportunities

- ▶ Joint Attention Training–Adults
  - ▶ Peer Play
  - ▶ Party Club
  - ▶ Friendship Camp
  - ▶ Friends and Fitness
  - ▶ Social Communication Therapy Group
  - ▶ Social Partnerships
  - ▶ Businessperson's Social Skills
- 

# Small Group Social Skills

Social Communication Therapy Group  
Friends and Fitness

# Goal

- ▶ Provide an overview of two of the social skills groups in terms of structure, followed by sample Functional Assessment and Conceptual Analyses to teach:
- ▶ A simple classroom skill of hand raising as mand
- ▶ A more complex skills of conversation.

# Goal Selection

Verbal Behavior Milestones and Assessment and  
Placement Program (VB MAPP–Sundberg, 2008)  
Assessment of Basic Language and Learning Skills–  
Revised (ABLLS–R–Partington, 2006)  
The Developmental Profile–Third Edition (DP–3)  
The Test of Problem Solving–3  
Vineland Adaptive Behavior Scale–2  
Kasper Inventory of Social Skills and Needs (KISSN)  
Open ended interview w/parent, teacher  
regarding inventory and Problem behavior

# The Kasper Inventory of Social Skills and Needs

Managing Peer Conflict/Peer Aversive Behavior				
Antecedent-Response		Consequence		Potential function
Does the learner engage in problem behavior when a peer is engaging in behavior that is bothering him?		If yes, What typically happens next?	Adult Separates Adult Directs Peer to stop Peer stops Peer/Adult provides dramatic response Other:	Escape Escape Escape Attention
Does the learner frequently tattle on peers for minor issues?		If yes, What typically happens next?	Adult Separates Adult Directs Peer to stop Peer stops Peer/Adult provides dramatic response Other:	Escape Escape Escape Attention
Is the learner overly bossy or teacher-like when a peer is engaging in behavior that is bothering him?		If yes, what typically happens next?	Adult Separates Adult Directs Peer to stop Peer Stops Peer/Adult provides dramatic response Other:	Escape Escape Escape Attention
Is the learner taken advantage of by dominant peers?		If yes, what typically happens next?	Peer leaves area Peer/adult provides dramatic response Other	Escape Attention
Importance				Proficiency
0 1 2 3 4	Appropriate reporting (three step fix it)	The learner will manage minor conflicts independently and gain adult assistance when needed.	The learner will ask once nicely, ask once strongly and get an adult for help if peer behavior is aversive and no adult	0 1 2 3 4
0 1 2 3 4	Minding your own Business	The learner will ignore or self-advocate when peers under jurisdiction of adults engage in behavior aversive to him.	The learner will ignore, walk away or ask to move if peer behavior bothers him and an adult is near the peer	0 1 2 3 4
0 1 2 3 4	Dealing with Bullies (Quick Talk and Walk)	The learner will safely advocate for his needs when presented with dominant peer (bully)	The learner will state " I don't like that" and move away from a bully and toward an adult	0 1 2 3 4

# Goal Selection

Indirect Assessment (KISS)

Direct observation in our group during trial group  
(Manipulation of environmental variables within group)

Utilization of peer tutors and seasoned participants for environmental manipulations

Functional Assessment/Analysis of problem behavior for children within our program

Team (Parents/School/Other Therapies) collaborate to select socially valid goals

Team (Parents/School/Other Therapies) collaborate to contrive opportunities for entrapment across settings

# Staff Training

- ▶ Each child may be provided with a shadow (treatment therapist) who is trained to facilitate interaction
- ▶ Support staff are specifically trained in:
  - ✓ Support Hierarchy
  - ✓ General Prompting
  - ✓ General Shadowing/Positioning Guidelines
  - ✓ Individualized Methods for prompting/fading
  - ✓ Methods for alerting the instructor/other TT
    - ✓ Reinforcement or missed skill
  - ✓ Individualized reinforcement systems
  - ✓ Applying BIPS within the social setting



# Peer Training

- ▶ Peers are specifically trained in:
  - ✓ Providing Social Reinforcement (Showing support)
  - ✓ Being Persistent in Gaining Attention (Get close, say name, touch shoulder, give item)
  - ✓ Coaching (Tell–Show–Do)
  - ✓ Acting (emotions, contriving MO)
  - ✓ What approximations to accept
  - ✓ Assisting in Prompting or Delivery of Reinforcement based on Group vote and learner agreement
  - ✓ Fluent in all Social Skills
  - ✓ Peer Reinforcement System
  - ✓ Planned Ignoring

# Providing Social Reinforcement

- ▶ Smiling, Nodding
- ▶ Clapping, Quiet Pump, Jumping
- ▶ Cheering by Name
- ▶ High fives, fist bumps
- ▶ Specific Praise
- ▶ Encouraging Words
- ▶ Replacement Phrases for Negative Statements
- ▶ Responding to mands (simple and complex)

# Acting

- ▶ Ignoring or directly reinforcing problem behavior
- ▶ Contriving situations to teach social skills
  - Need for assistance
  - Implied Rules
  - Contriving mands for information
    - Transitive MO
    - Mands for Information–Conversation
- ▶ Fluent in all Social Skills to be Instructed

# Methods and Procedures for SCTC

- ▶ Direct Instruction Methods for Group Rules  
Group Goals/Group Contingency/Content
- ▶ Greeting with Implied Rule
- ▶ Behavioral Skills Training Model with multiple video models used for instruction
  - Brief explanation
  - Video models with self-instruction
  - Role play and guided practice
- ▶ Application Activity: Realistic application contrived through games or application tasks.
- ▶ Farewells

# Methods and Procedures for Friends and Fitness

- ▶ Team taught: BCBA, Personal Trainer
- ▶ Direct Instruction Methods for Group Rules  
Group Goals/Group Contingency
- ▶ Group Structured Greeting
- ▶ Circuit 1: 10–20 minute nonstop cardio
- ▶ Behavioral Skills Training Model with multiple video models used for instruction
- ▶ Application Activities/Games

# Physical Exercise Facts

- ▶ The U.S. Department of Health and Human Services recommends that young people aged 6–17 years participate in at least 60 minutes of physical activity daily.

▶  
Collingwood TR, Sunderlin J, Reynolds R, Kohl HW 3rd. Physical training as a substance abuse prevention intervention for youth. *Journal of Drug Education* 2000;30(4):435–451.

# Physical Exercise Facts

- ▶ When children and adolescents participate in the recommended level of physical activity—at least 60 minutes daily of Moderate Vigorous —multiple health benefits accrue.



# Physical Exercise Facts

- ▶ There is substantial evidence that physical activity can help improve academic achievement, including grades and standardized test scores.
- ▶ The articles in this review suggest that physical activity can have an impact on cognitive skills and attitudes and academic behavior, all of which are important components of improved academic performance. These include enhanced concentration and attention as well as improved classroom behavior.
- ▶ Increasing or maintaining time dedicated to physical education may help, and does not appear to adversely impact, academic performance.

# Moderate Vigorous Physical Exercise Reduces Stereotypy

- ▶ “...experimental literature indicates that physical exercise can positively influence both appropriate and inappropriate behaviors, including stereotypy...”
- ▶ According to Kern, Koegel and Dunlap (1984) ...”15 minutes of continuous vigorous physical activity was always followed by a reduction in stereotypy.

Kern, Koegel, & Dunlap (1984). The influence of vigorous versus mild exercise on autistic stereotyped behaviors, *Journal of Autism and Developmental Disorders*, 14(1).

# Goals for Friends and Fitness

- ▶ Provide motivation, skills, and facilitated practice with careful prompting and prompt fading that children with autism need in order to benefit from social opportunities like recess, gym class, family and neighborhood organized games, and community offered athletics

# Methods and Procedures for Friends and Fitness

- Brief explanation
- Video models with self-instruction
- Role play and guided practice
- ▶ Application Physical Activity or Game
- ▶ Direct instruction in tact, receptive, and/or tacting teams, athletes frequently the content of conversations in the Midwest
- ▶ Group cleanup
- ▶ Farewells

# Methods and Procedures for SCTC

- ▶ Parent instruction in social skills
- ▶ Parent interview at end of session to assess generalization/social validity
- ▶ Parent receives graph of data

# All Group Social Skills

Pre-intervention probe is conducted

Classes meet continuously

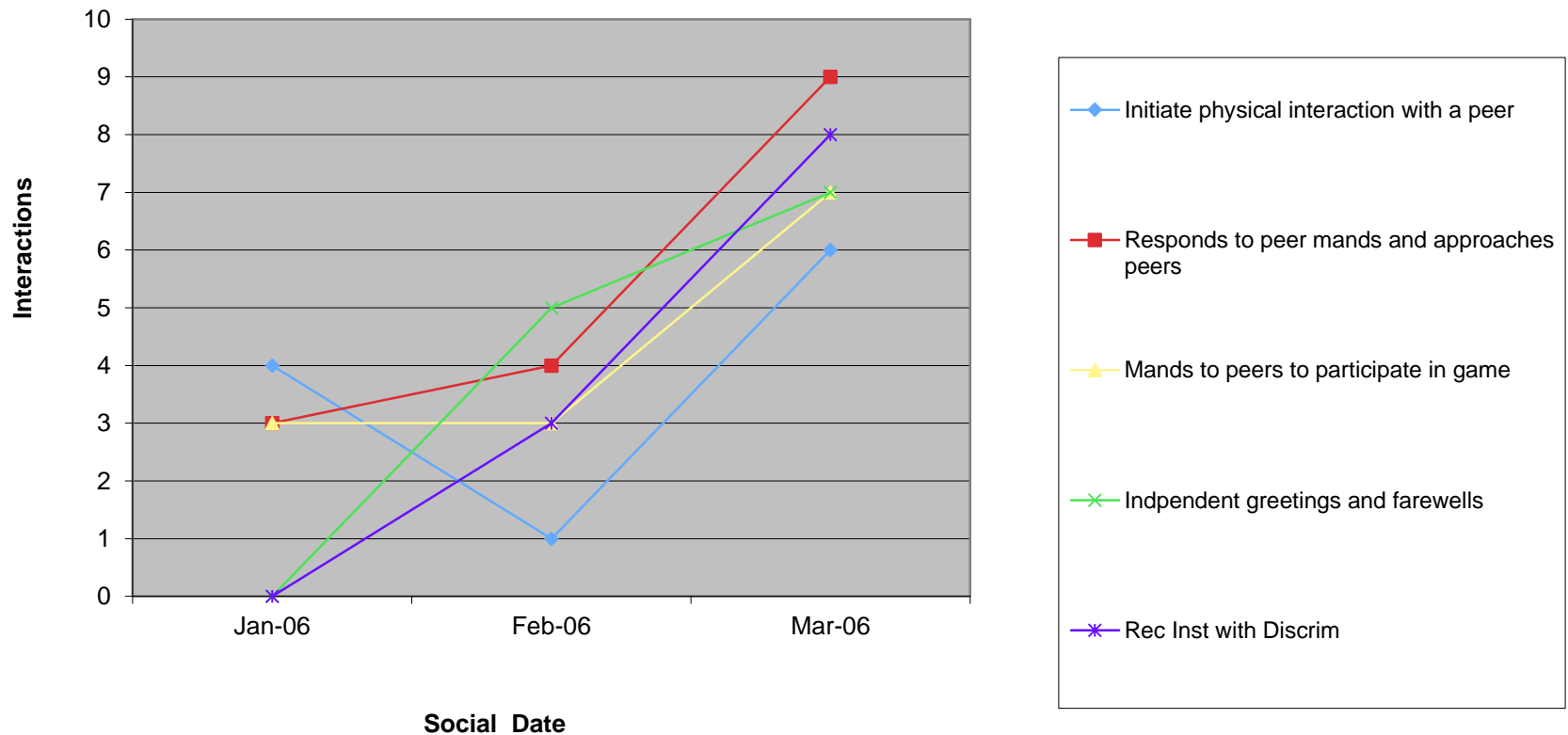
- Friends and Fitness 1–2 times per week
- Social Communication Therapy Class 1 per week
- Units last 6–10 weeks

Post-intervention probe conducted

Daily data collected

# JM data

Independent Social Interactions Per Opportunity





# Functional Analysis and Conceptual Analysis of a Classroom Social Skill: Raising Hand to Mand

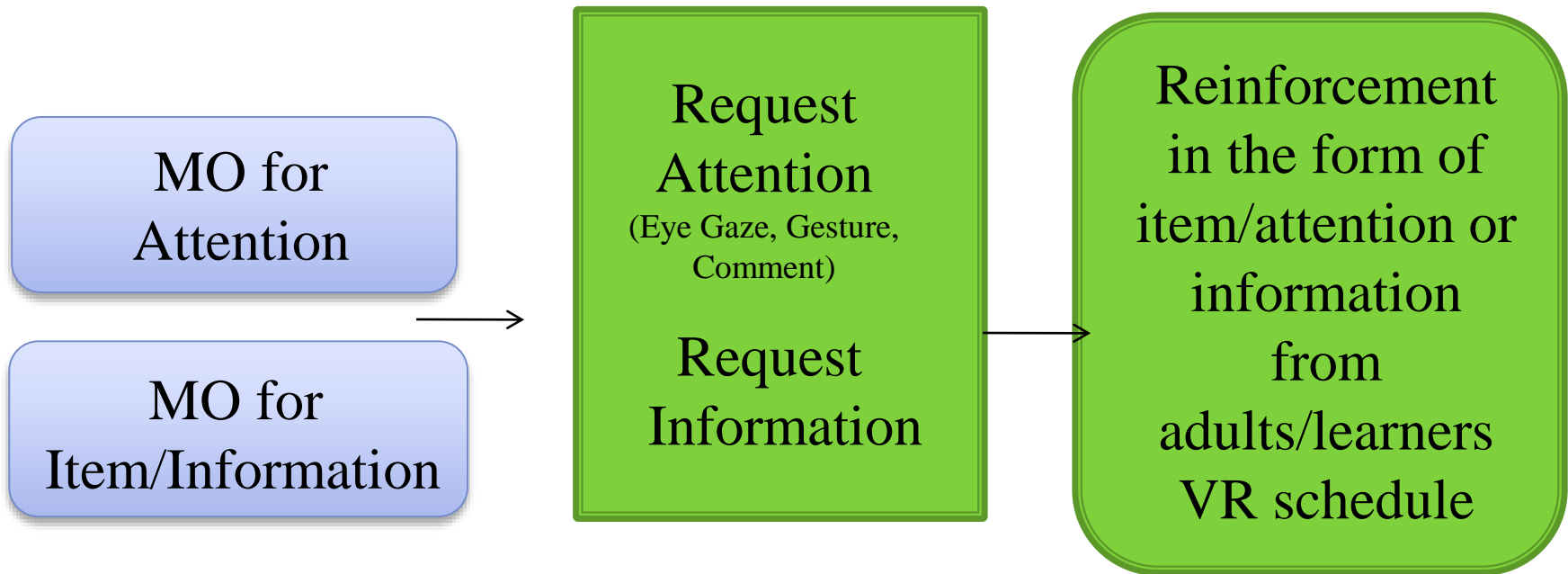
# Functional Analysis of Learners Talking out During Instruction

- ▶ Observation and Systematic Manipulations revealed different functions for different learners
- ▶ Socially mediated positive reinforcement (adult attention, peer attention)
- ▶ Automatic Positive reinforcement
  - –echolalia/scripting
  - –perseverative interests
- ▶ Automatic Negative reinforcement–negative statements

# Socially Mediated Positive Reinforcement

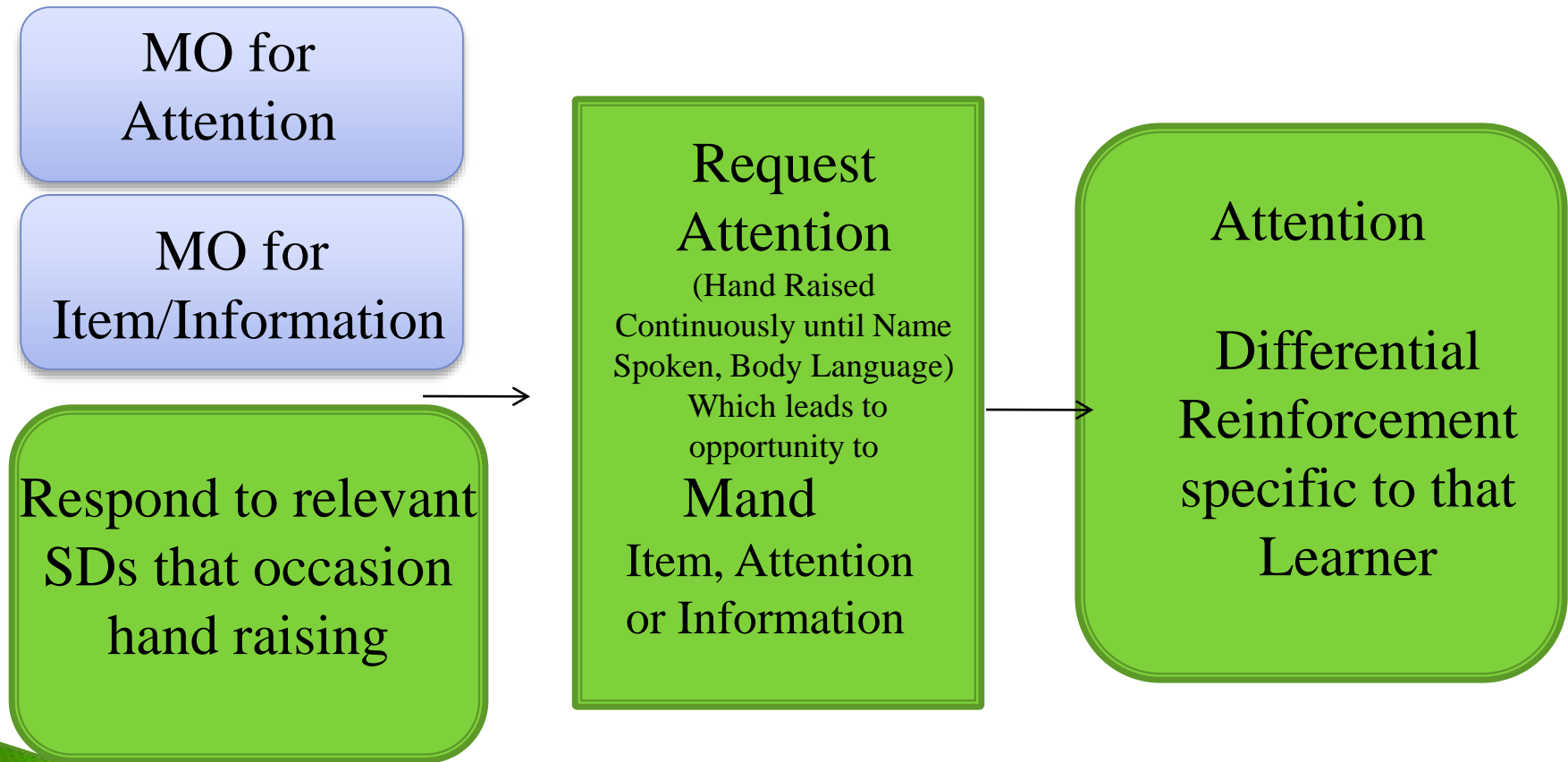
# Understanding Talking Out in Class Maintained by SMPR

Antecedent → Behavior → Consequence



# Hand Raising to Mand

Antecedent → Behavior → Consequence



## SDs that Occasion Hand Raising to Mand (Tangible/Attention/Information)

1. Alerting Signal
2. Teacher Facing Group
3. Teacher Talking
4. Signal of reinforcement available (Treats in hand) or teaching imminent (LCD projector on, Instructional Material Present)
5. Physical Arrangement of Learners
  1. Bring it in
  2. Hand on the wall
  3. Stand on the line
6. Stink Eye, “is you name Justin?”

# Parts of a Behavior Intervention Plan

1. Antecedent Manipulations: Arrange the environment to reduce the likelihood the behavior will occur
2. Extinction for the Problem Behavior (when possible) Remove the reinforcer that has previously followed the problem behavior
3. Direct Instruction and Differential Reinforcement of Replacement Behavior that serves the same function
4. Instruction in other necessary skills



## Antecedent Manipulations for Talking Out Maintained by Socially Mediated Positive Reinforcement

- ▶ Allow 5–7 minutes of Free Time after entry into the social skills space for learners to talk to staff and each other
- ▶ Review of Rules for hand raising with choral responding in Structured Group at Beginning of Each Session
  - Raise Hand
  - Keep Mouth Quiet
  - “Remember I call on people who raise their hand quietly. “

## Extinction for Talking Out Maintained by Socially Mediated Positive Reinforcement

- ▶ When the learner talks out, do not respond.
- ▶ Staff prompts learner to raise hand nonverbally and gives “quiet finger”.
- ▶ Instructor does not give eye contact. Instructor uses finger count to signal S-Delta condition with at least 5 count while continuing with class, restating rule, or calling on learners who raise their hand quietly.
- ▶ Restart count for repeat talk outs
- ▶ Call on learner after minimum 5 seconds of quiet hand raise.
- ▶ Reinforce the target behavior
- ▶ [Bt quiet finger.mp4](#)

## Program Description

Child's Name: \_\_\_\_\_ Began On: \_\_\_\_\_

ABLLS Area: RECEPTIVE

Skill/ABLLS item: Follow instruction to wait quietly with pointer finger

### Teaching Procedure:

Hold up a promise (special edible that he does not have access to) and present pointer finger (and verbal instruction "wait quietly" if the level indicates) approximately 6 inches from learner's mouth. If the learner waits quietly for duration of interval, deliver the promise. If the learner does not wait quietly for the duration of the interval, remove the promise and present 5 intraverbals and/or echoics. Restart the teaching procedure up to 2 additional times. If the learner does not wait quietly for any of the 3 presentations and subsequent intraverbals and/or echoics, put the promise away, and move on to another mastered item.

Setting: ITT (Intensive Table Teaching) and NET (Natural Environment)

### Error Correction Procedure:

See above teaching procedure

### Targets:

Finger plus verbal instruction 1 second ITT  
 Finger plus verbal instruction 2 seconds ITT  
 Finger plus verbal instruction 3 seconds ITT  
 Finger plus verbal instruction 4 seconds ITT  
 Finger plus verbal instruction 5 seconds ITT  
 Finger plus verbal instruction 5 seconds NET  
 Finger 5 seconds ITT  
 Finger 5 seconds NET  
 Finger 8 seconds ITT  
 Finger 8 seconds NET  
 Finger 10 seconds ITT  
 Finger 10 seconds NET  
 Finger 15 seconds ITT  
 Finger 15 seconds NET  
 Fade promise

Change error correction to stating "the finger means wait quietly" and representation up to 3 times prior to removal from setting and running the intraverbals or echoics.

## Differential Reinforcement of Raising Hand Quietly to Mand (Replacement Behavior that Serves Same Function)

- ▶ Set up practice trials to mand when various SDs are in place (e.g. Teacher standing at front of class holding reinforcer–candy, mysterious container, etc. )
- ▶ Staff prompts learner to raise hand nonverbally (MO in effect) and gives “quiet finger”
- ▶ Instructor calls on learner
- ▶ Learner mands
- ▶ Instructor delivers lavish specific praise, item/attention/information and points toward group contingency

## Differential Reinforcement of Other Necessary Skills

- ▶ Set up practice trials to respond to relevant SDs
  - Pair other alerting signals, Mand when various SDs are in place (e.g. Teach standing at front of class holding reinforcer–candy, mysterious container, etc.
- ▶ Staff prompts learner to raise hand nonverbally and gives “quiet finger”.
- ▶ Instructor calls on learner or nods at learner or looks at learner
- ▶ Learner mands
- ▶ Instructor delivers lavish specific praise and reinforcement.

## Differential Reinforcement of Other Necessary Skills

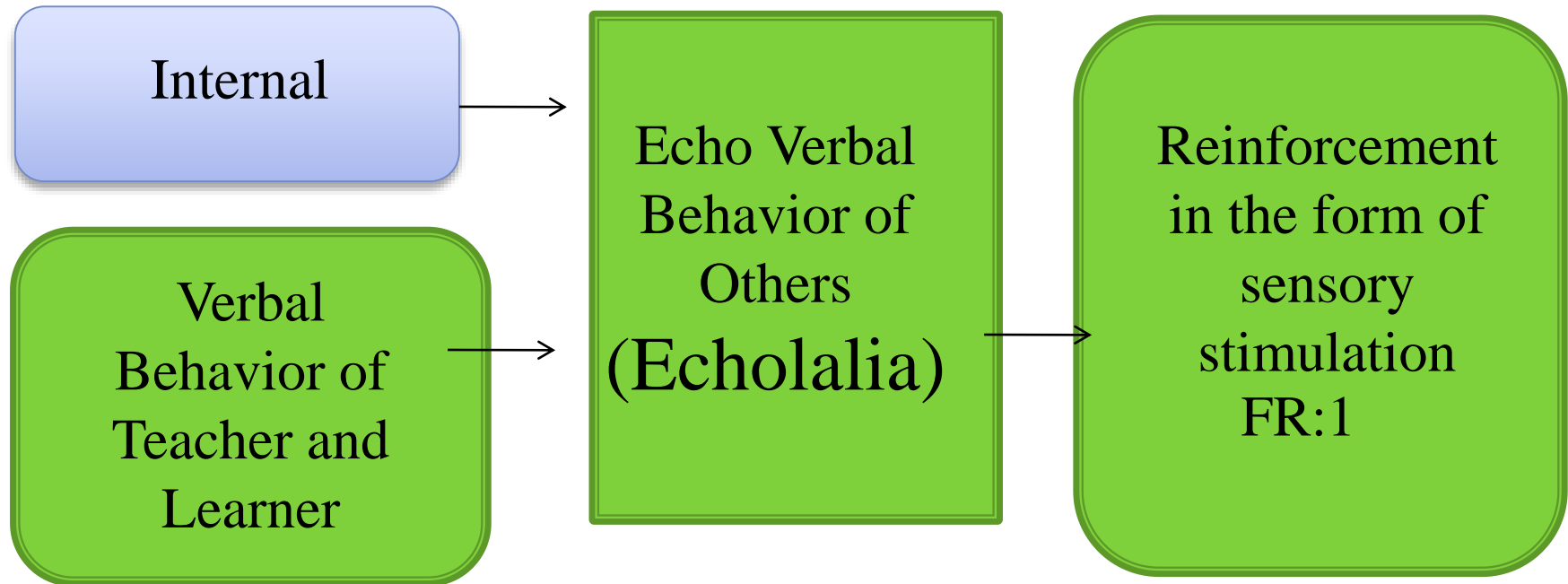
- ▶ Set up practice trials to respond to relevant SDs (Structure of group)
  - Direct instruction and differential reinforcement
    - responding to the alerting signal.
    - talking when teacher's back is turned or out of room and ceasing talking when teacher faces the group or re-enters if the setting is structured (hand on wall, standing on line, seated on floor)
    - Mand when various SDs are in place (e.g. Teach standing at front of class holding reinforcer – candy, mysterious container, etc.)

# Automatic Positive Reinforcement–Echolalia



# Understanding Talking Out in Class maintained by Automatic Reinforcement–Echolalia

Antecedent → Behavior → Consequence



## Antecedent Manipulations for Talking Out Maintained by Automatic Positive Reinforcement–Echolalia

- ▶ Allow 5–7 minutes of Free Time and Echolalia after entry into the social skills space
- ▶ Review of Rules with choral responding for Talking in Structured Group at Beginning of Each Session
  - Raise Hand
  - Keep Mouth Quiet
  - “Remember I call on people who raise their hand quietly. “

Consistently use hand signal for choral instruction  
Consistently use “quiet finger” and DI hand signal

## Extinction for Talking Out Maintained by Automatic Positive Reinforcement–Echolalia

- ▶ When the teacher presents instructions, learner is presented with the quiet finger to block echo response.
- ▶ When learner talks out, do not respond, present quiet finger.
- ▶ If talking persists, follow plan

Differential Reinforcement of Echoing teacher when given response to chorally respond and when quiet in response to quiet finger

- ▶ Staff prompts learner to cease talking during instruction via “quiet finger” (initially awarded individual tokens–now faded).
- ▶ Staff removes “quiet finger” and awards tokens for responses to choral responding hand signal. (initially awarded individual tokens–now faded)
- ▶ Instructor delivers lavish specific praise, item/attention/information and points toward group contingency for following signals.

## Differential Reinforcement of Other Necessary Skills

- ▶ Set up practice trials to respond to relevant SDs
  - Direct instruction and differential reinforcement of responding to the alerting signal quietly.
  - Direct instruction and differential reinforcement of talking when teacher's back is turned or out of room and ceasing talking when teacher re-enters if the setting is structured (hand on wall, standing on line, seated on floor)
  - Direct instruction and reinforcement for echoing is response to "Everybody, Everybody" with hand signal.

## Differential Reinforcement of Other Necessary Skills

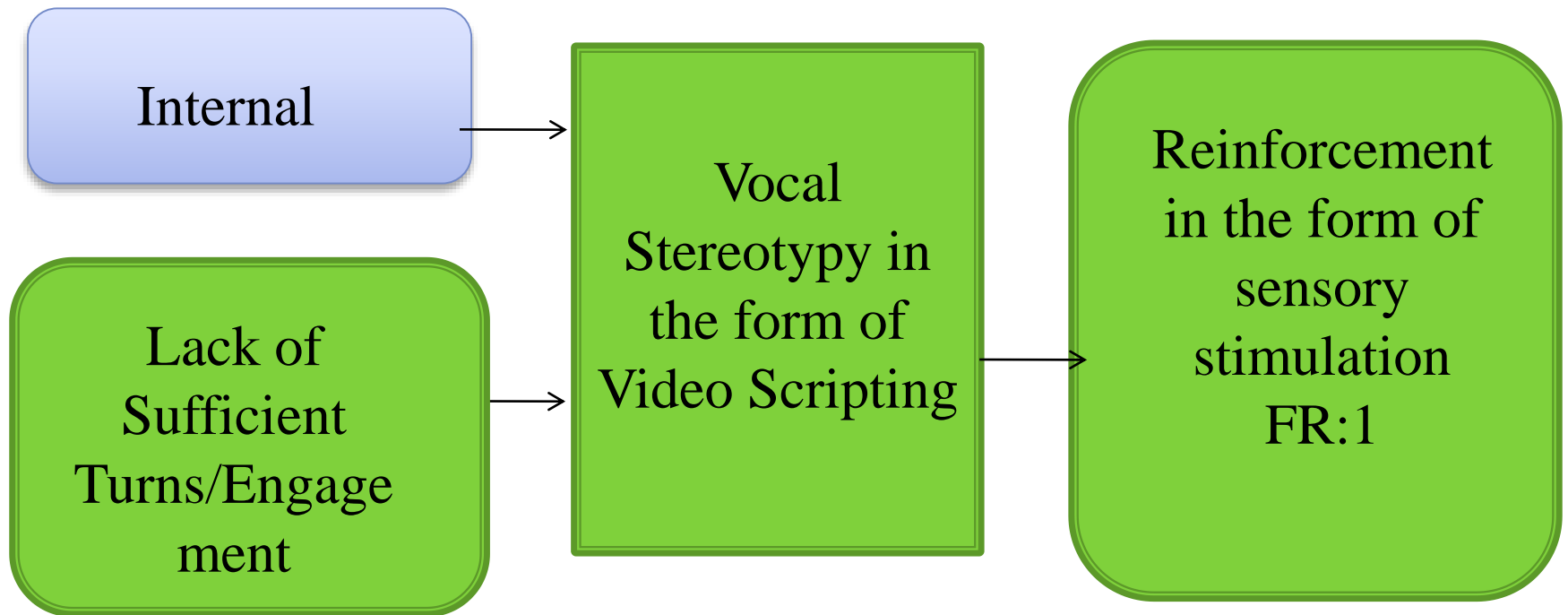
- ▶ Staff delivers tokens for remaining quiet in response to quiet finger or “5 seconds of quiet” or “10 seconds of quiet” signal.
- ▶ Staff uses verbal praise sparingly as it may be echoed.
- ▶ Learner has long history of reinforcement for immediate echolalia. Discrimination training necessary at onset of each class due to intermittent reinforcement in other similar situations.

# Automatic Positive Reinforcement “Video Scripting”



# Understanding Talking Out in Class Maintained by Automatic Positive Reinforcement–Vocal Stereotypy

Antecedent → Behavior → Consequence



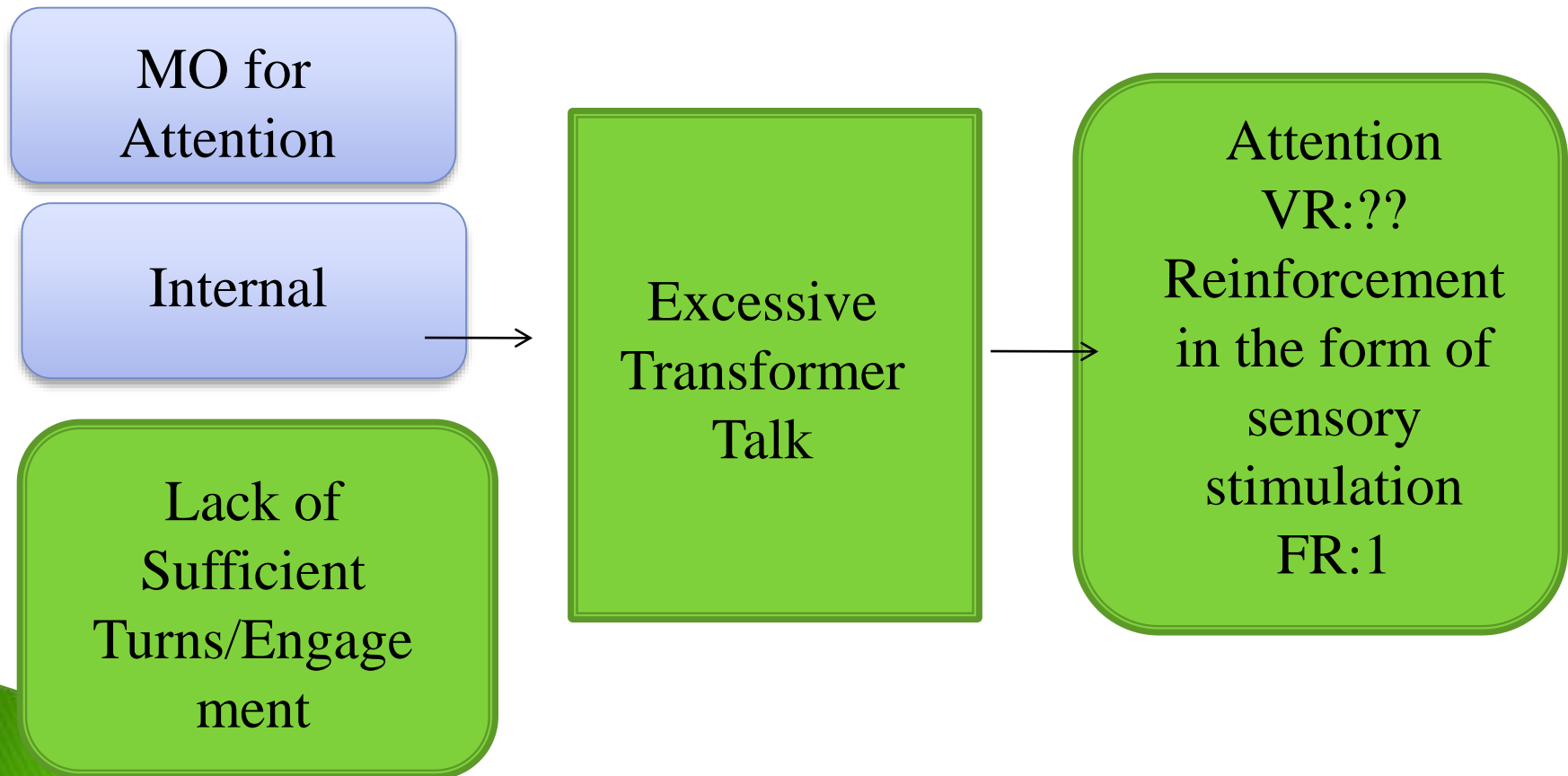
# Reduction in Talking Out Maintained by APR–Vocal Stereotypy

- ▶ Antecedent Manipulation
  - Discriminative Stimulus for DRO Interval or RIRD in effect (bracelet, ring, etc.) (next slide)
  - Increase in individual/Group Turns
- ▶ Extinction (interruption/punishment)
- ▶ Interrupt, RIRD or restart of timer for DRO
- ▶ Differential Reinforcement of Alternative Behavior that serves same function: None
- ▶ Instruction in Other Necessary Skills:  
Continue to promote social communication skills and independent play skills

# Automatic Positive Reinforcement Socially Mediated Positive Reinforcement

# Understanding Talking Out in Class Maintained by Automatic Positive Reinforcement/Socially Mediated Positive Reinforcement

Antecedent → Behavior → Consequence



# Reduction in Talking Out Maintained by APR/SMPR–Transformer Talk

- ▶ Antecedent Manipulation
  - 5–7 minutes of free time prior to group
  - Review Hand–raising rule
- ▶ Extinction
  - No instructor response, prompt, quiet finger, time delay
- ▶ Differential Reinforcement of Alternative Behavior that serves same function: Short, on topic responses reinforced abundantly. Initially, allow transformer talk after hand raised.

# Reduction in Amount of Talking About Transformers Maintained by APR/SMPR

- ▶ Antecedent Manipulation
  - After he raises, hand ask “What do you want to talk about?”
- ▶ Extinction—Not yet
- ▶ DRL ( allow 2 times or 2 sentences)
- ▶ Instruction in Other Necessary Skills:
  - Teach learner to tact MOs of others
- ▶ Instructor tells group topic and group votes if they want to hear about it or not.

# Reduction in Amount of Talking About Transformers Maintained by APR/SMPR

- ▶ Learner counts votes and tacts individuals who like to hear about transformers.
- ▶ If majority, DRL, If not, EXT, (Teaching learner that others have MOs that differ from his)
- ▶ Teach learner to recall learners who have MO for transformer talk and approach at free time.
- ▶ Teach learner signals that learners are bored with topic and needs to shift topic



# Reduction in Amount of Talking About Transformers Maintained by APR/SMPR

- ▶ Teach learner to mand for information from peer
- ▶ Teach learner to tact peer interests and initiate conversation regarding peer interests

# Automatic Negative Reinforcement

# Understanding Talking Out in Class maintained by Automatic Negative Reinforcement–Negative Statements

Antecedent → Behavior → Consequence

Internal  
Anxiety

Rain Clouds

Vocal  
Stereotypy in  
the form of  
Negative  
Weather  
Statements

Reinforcement  
in the form of  
Anxiety  
Reduction  
VR:?????

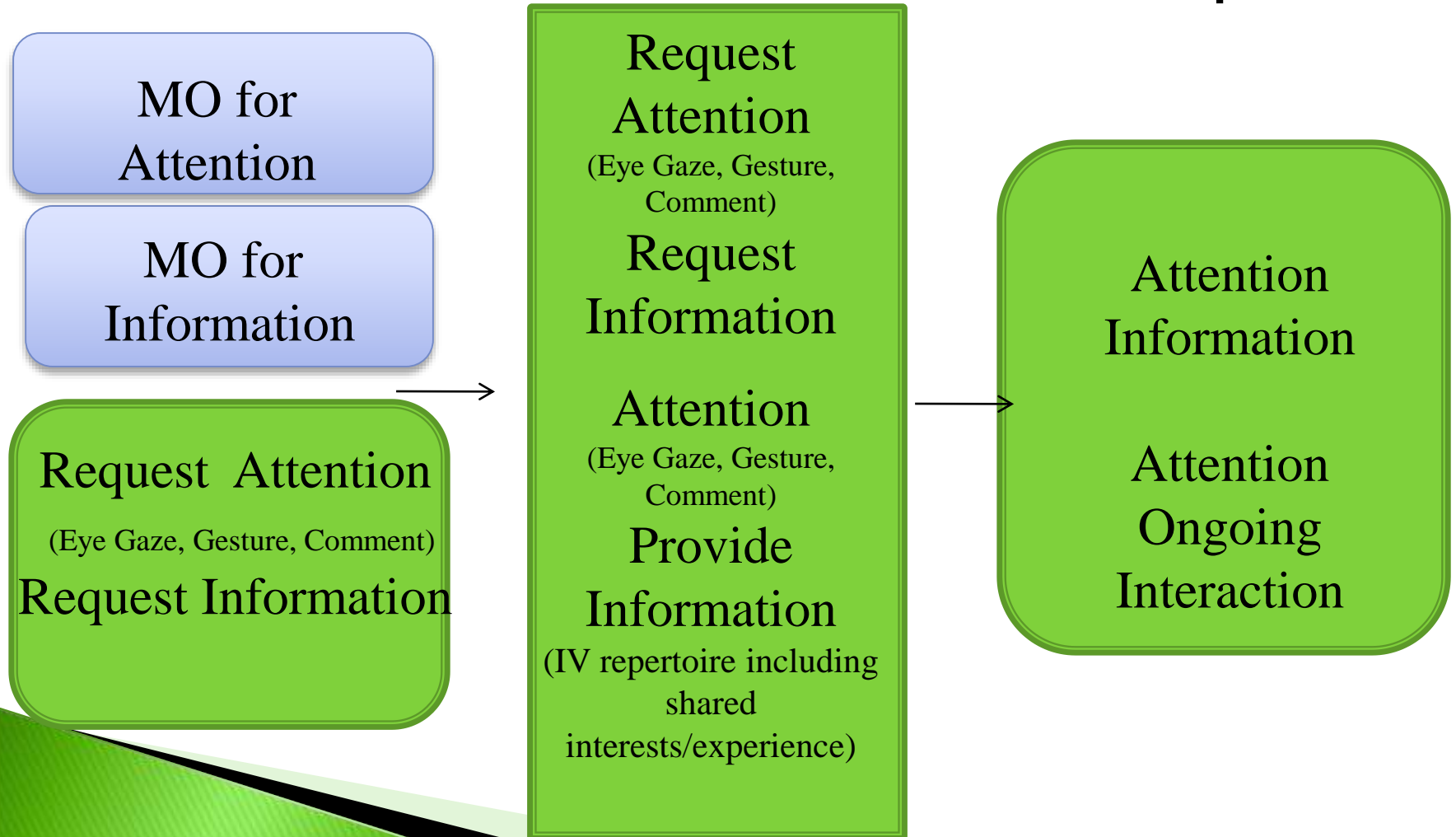
# Reduction in Talking Out Maintained by ANR–Vocal Stereotypy–Negative Statements

- ▶ Antecedent Manipulation
  - Increase in Individual/Group Turns
  - Close Blinds
- ▶ Extinction (not under social control)
  - Interrupt, Response blocking with Calming Strategy  
Incompatible with Negative Statements for whole group
- ▶ Differential Reinforcement of Alternative Behavior that serves same function: Prompting and Reinforcement of Calming Strategies with breathing, Happy Scripts
- ▶ Instruction in Other Necessary Skills: Desensitization with Hierarchy of rain videos of systematically increasing loudness while teaching competing behavior with physiological reduction in stress response; video model of calming in response to seeing rain, differential reinforcement of use of coping strategies.

# Functional Analysis and Conceptual Analysis of a Complex Social Skill: Conversation

# Understanding Conversation

Antecedent → Behavior → Consequence

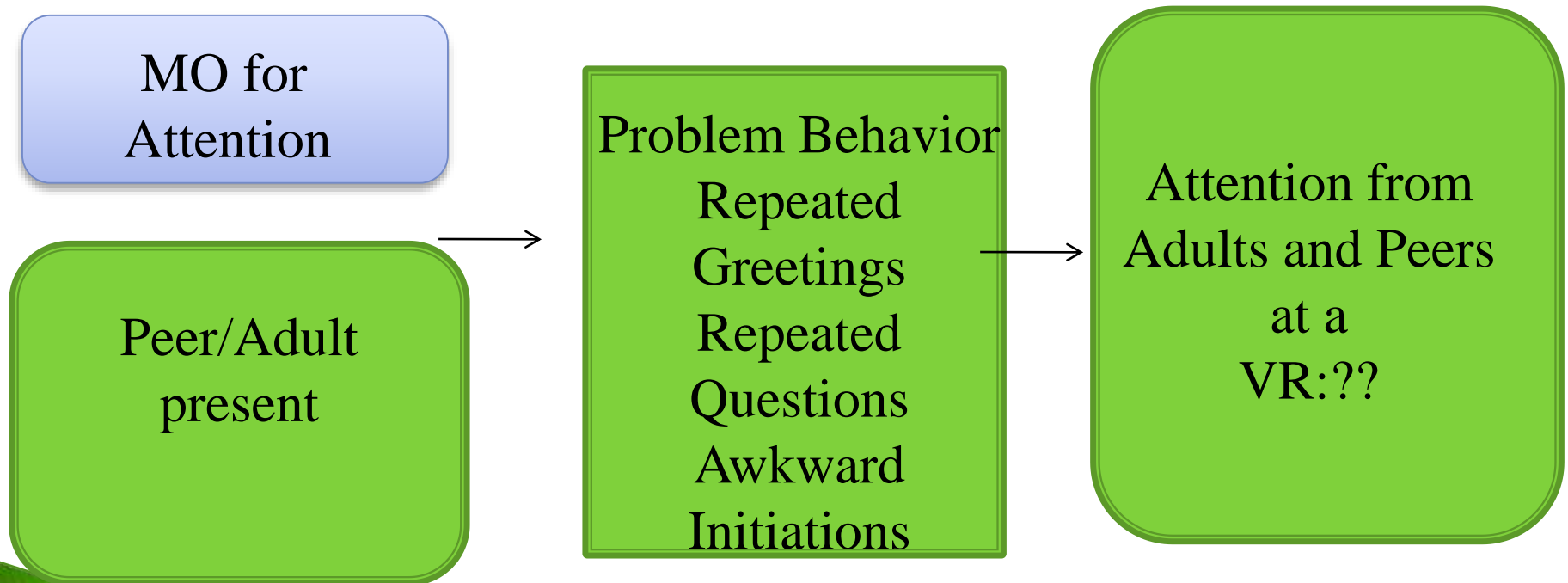


# Functional Analysis of Defective Mands for Attention

- ▶ Observation and Systematic Manipulations revealed similar functions for different learners
- ▶ Socially mediated positive reinforcement
- ▶ Problem behavior maintained by Peer attention (lip popping, repeated questions)
- ▶ Defective Mands:
  - Repeated Greetings/Questions maintained by attention
  - Awkward Initiations/Attempts to Join maintained by attention
- ▶ Latencies

# Understanding Problem Behavior and Other Defective Mands for Attention

Antecedent → Behavior → Consequence





# Manding Attention from Peers

## 1. Reduce Likelihood of Problem Behavior

DRO tokens to earn opportunity to ask questions from a list

## 2. Peer coaching and reinforcement for ignoring lip popping and repeated questions

MYOB training

## 3. Direct Instruction and Reinforcement of Replacement Behaviors

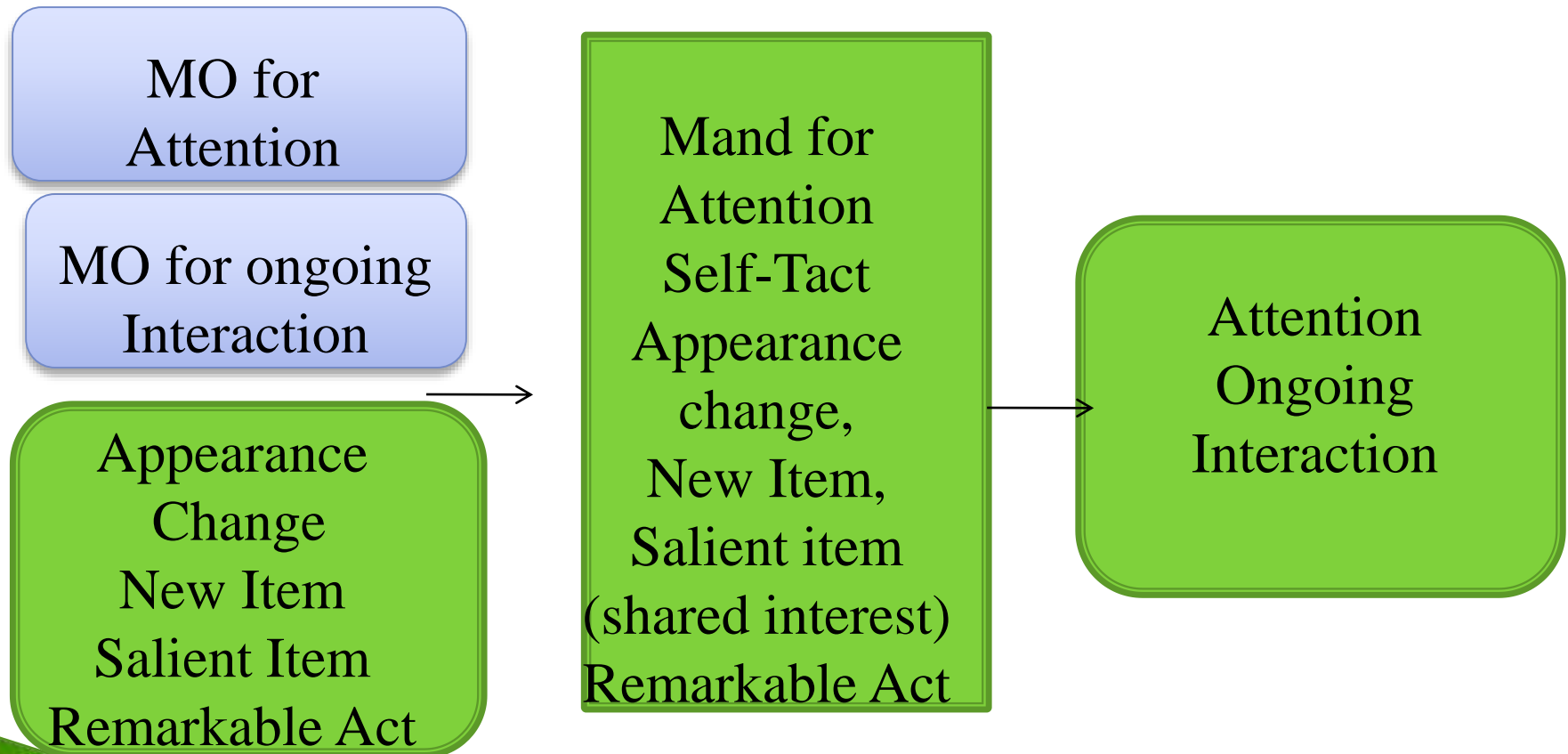
Manding For Attention

Complimenting

## 4. Other Necessary Skills:

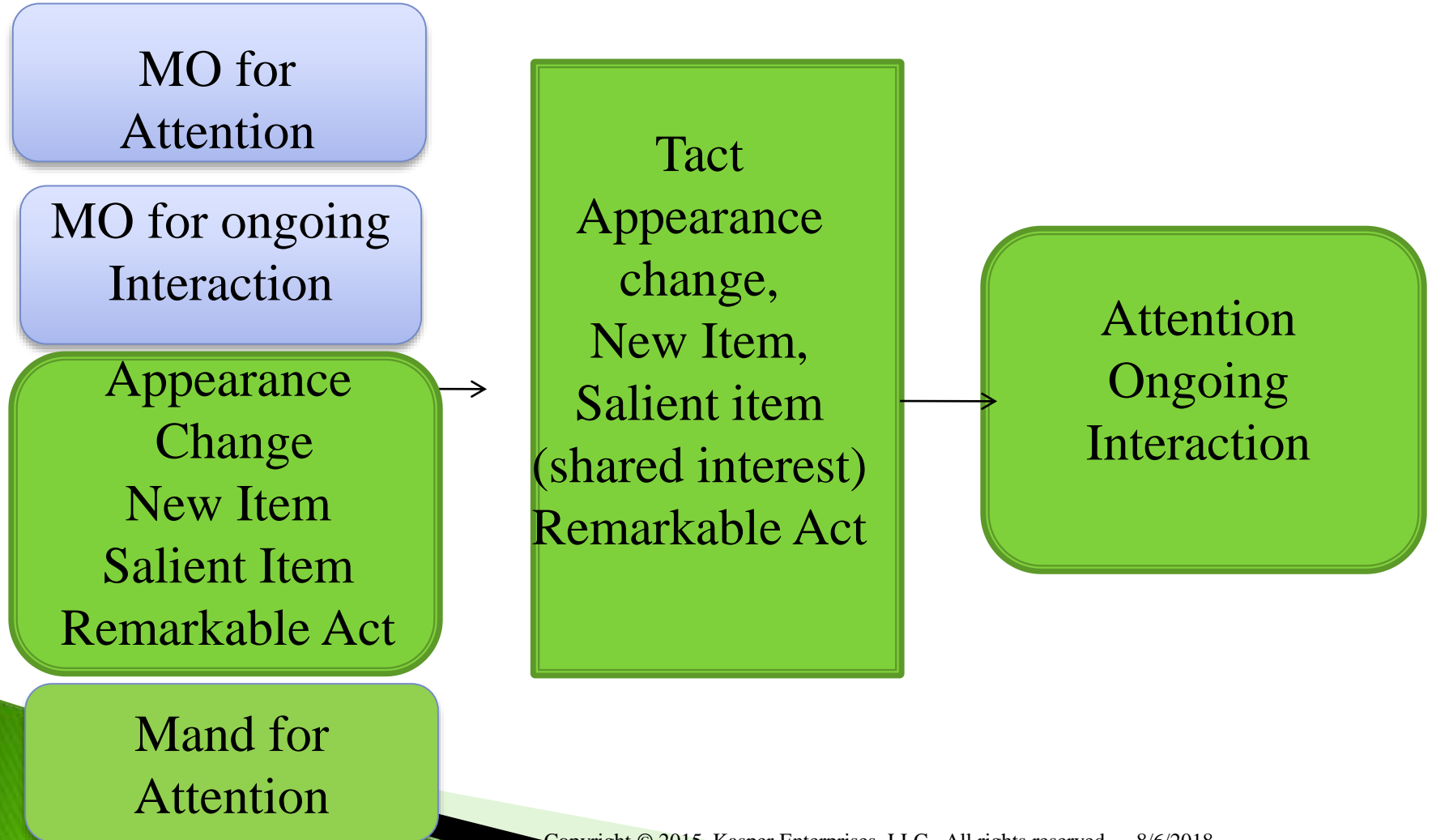
Responding to Mands for Attention

# Understanding Manding for Attention Antecedent → Behavior → Consequence



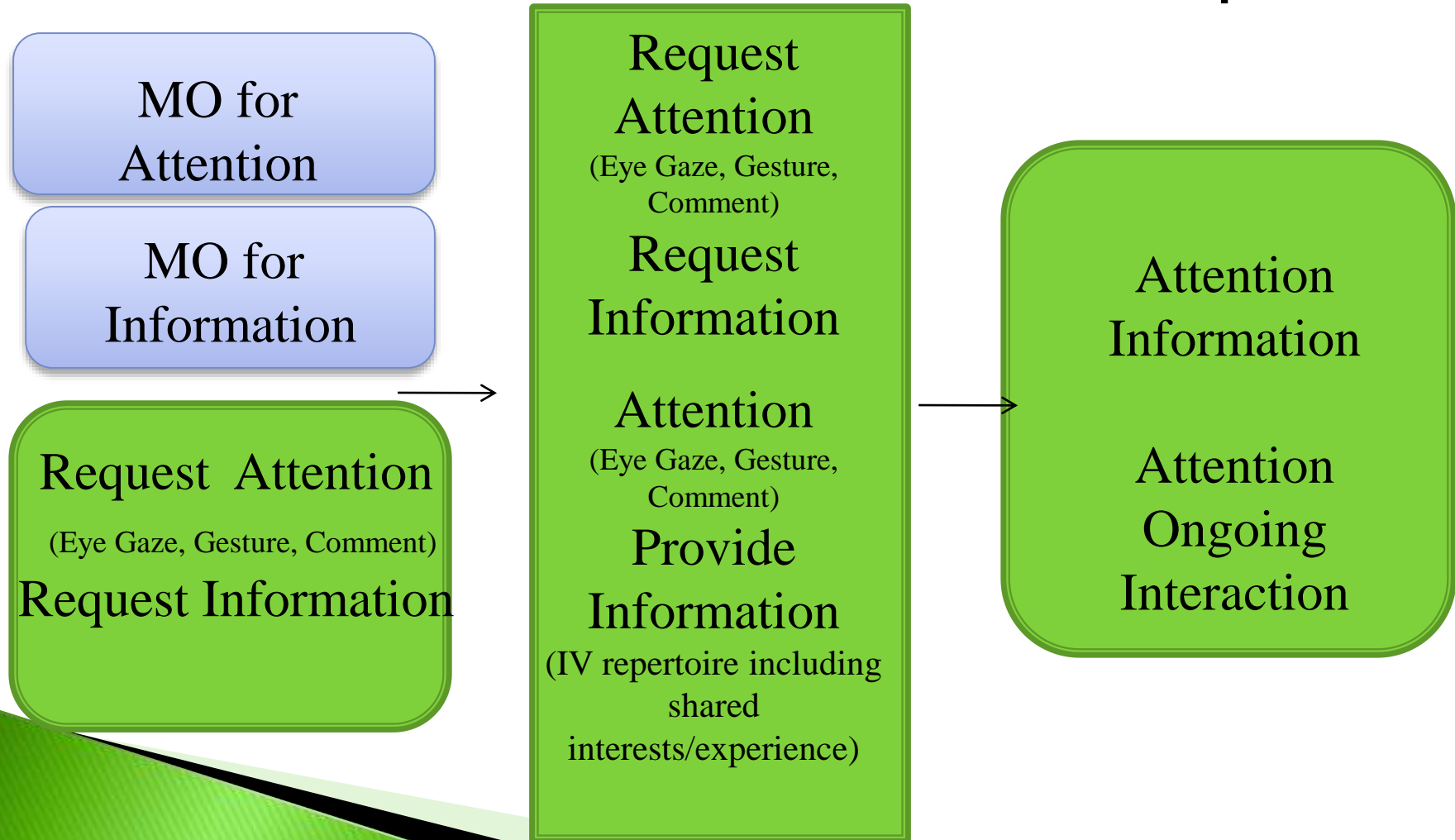
# Understanding Complimenting

Antecedent → Behavior → Consequence



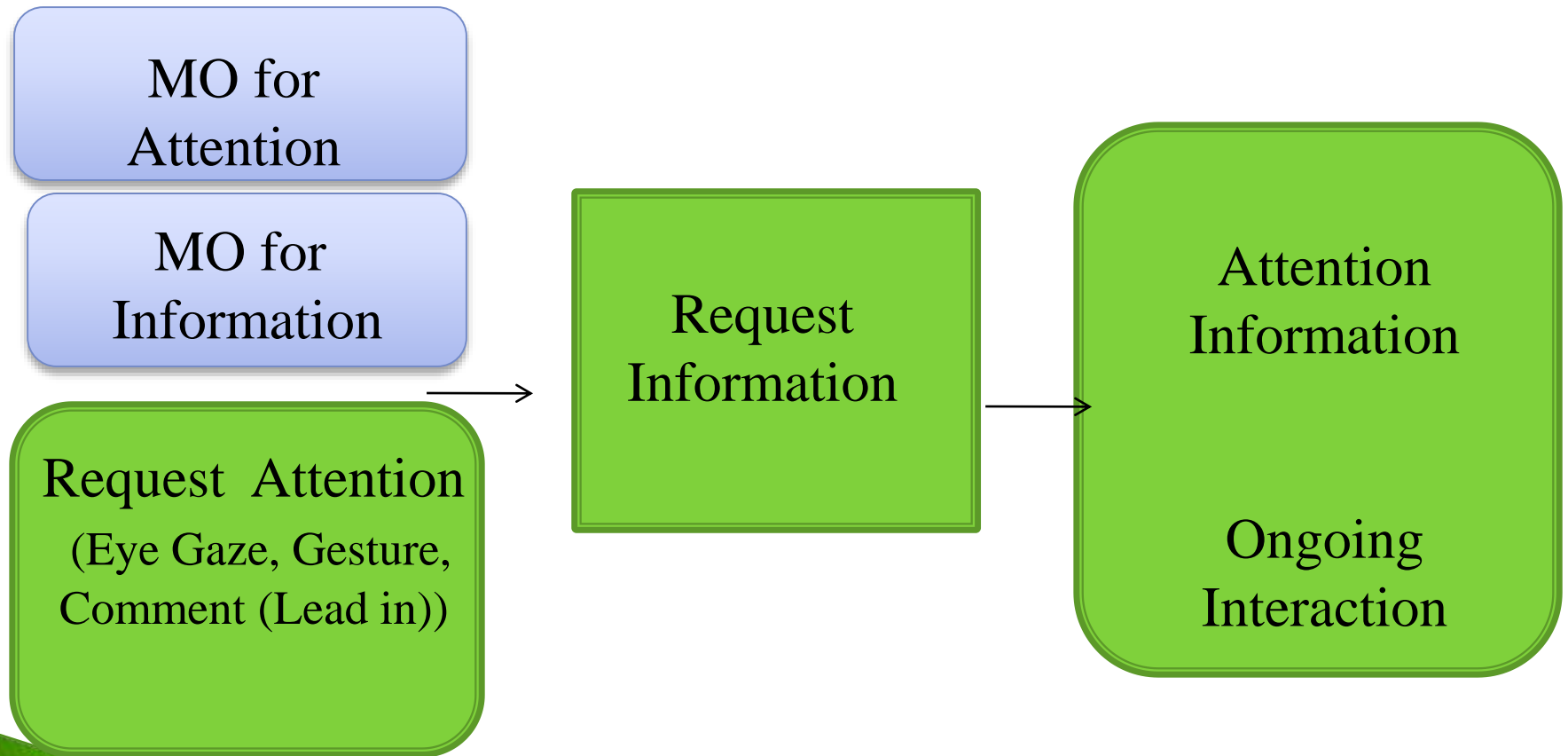
# Understanding Conversation

Antecedent → Behavior → Consequence



# Understanding Mands for Information

## Antecedent → Behavior → Consequence



# Functional Analysis of Defective or Absent Mands for Information

- ▶ Observation and Systematic Manipulations revealed similar functions for different learners
- ▶ Socially mediated positive reinforcement
- ▶ Defective Mands:
  - Repeated Greetings/Questions maintained by attention
  - Poor attending to verbal behavior of partner
  - Wh question selection errors
  - Latencies
- ▶ Skills Deficit
  - Wh questions discrimination
  - Fluency for responding to verbal behavior of partner
  - Limited intraverbal repertoire

# Understanding Defective or Absent Mands for Information

Antecedent → Behavior → Consequence

MO for  
Attention

Skills deficits:  
Poor Attention  
to comment,  
Poor WH use,  
not fluent

Problem Behavior  
Repeated  
Greetings  
Awkward  
Questions  
No/unrelated  
Comment

Attention from  
Adults and Peers  
at a  
VR:??



# Manding Information from Peers

## 1. Reduce Likelihood of Problem Behavior

DRO tokens to earn opportunity to ask questions from a list

## 2. Peer coaching and reinforcement for ignoring lip popping and repeated questions MYOB training

## 3. Direct Instruction and Reinforcement of Replacement Behavior Component skills

Attending to Comments

Manding For Information

Fluency Training

## 4. Other Necessary Skills:

Follow-up Commenting

# Target Social Skills

# Level 1 Group Rules and Associated Goals

- ▶ Responding to an Alerting Signal: Hands on Head, Look at the teacher
- ▶ Giving up Reinforcers
- ▶ Finding a Dot to Sit or Stand On
- ▶ Personal Space
- ▶ Choral Responding
- ▶ Eye contact
- ▶ Responding to the Quiet Finger
- ▶ Responding to the Direct Instruction Hand Signal
- ▶ Intraverbal Rules

# Goals associated with opening song

- ▶ Greeting in a structured format
- ▶ Attending to the Instructor
- ▶ Catching the Ball
- ▶ Answering “what’s your name?”
- ▶ Dancing
- ▶ Intraverbal Song

# Goals associated with class structure

- ▶ Following group instruction
- ▶ Imitating peers or asking questions if you miss an instruction
- ▶ Waiting for the whistle
- ▶ Proceeding on the whistle
- ▶ Standing in line, behind the line, on the dot
- ▶ Meeting in the Middle
- ▶ Raising Hand to Volunteer

# Social Skills/Sequences

- ▶ Accepting items from peers
- ▶ Manding to peer
- ▶ Following instructions from peers
- ▶ Finding a Partner (buddy up)
- ▶ When someone doesn't answer (gaining attention, persistence)
- ▶ Asking to play a game
- ▶ Working together to achieve an adult-directed goal

# Social Skills/Sequences

- ▶ Returning Greetings (less structured)
- ▶ Yes/No Manding to Peers
- ▶ Manding to join game
- ▶ Waiting in line
- ▶ Basic Calming Strategies
- ▶ Meet in the middle: Eye contact, waiting, common social exchanges (high fives, fist bumps)



# Social Skills–Level 2

- ▶ Cheering
- ▶ Coaching
- ▶ Offering Assistance
- ▶ Simple Negotiation
- ▶ Advanced Negotiation
- ▶ Physical Problem Solving
- ▶ Self-Advocacy
  - Raising hand to mand
  - Voting your preference
  - Mand clarification you miss an instruction
  - Mand for turn when turn missed
  - Finding a quiet spot in a new environment
  - Asking for Music down, 10 seconds of quiet, break, sitting out of a game

# Social Skills/Sequences

- ▶ Manding Attention from Peers
- ▶ Manding for Information
- ▶ Handling Loss
- ▶ Being a Good Sport
- ▶ Following Rules of Games
- ▶ Tacting Rules of Games (Implied)
- ▶ Three Step Fix It
- ▶ Mind your own Business
- ▶ Quick Talk and Walk (Bullies)

# Social Skills/Sequences

- ▶ Tacting likes/dislikes of peers
- ▶ Predicting Peer behavior
- ▶ Complimenting
- ▶ Conversations
  - Short conversation
  - Long conversation
  - Conversational topics
  - Topic Questions
    - Opinion–Do you like
    - What Did you do?

# Friends and Fitness Units

- ▶ Workout and Working It out
- ▶ Having a ball: Basketball
- ▶ Having a ball: Football
- ▶ March Madness
- ▶ Problem Solving
- ▶ Working together
- ▶ Winter Olympics
- ▶ Summer Olympics
- ▶ Boxing

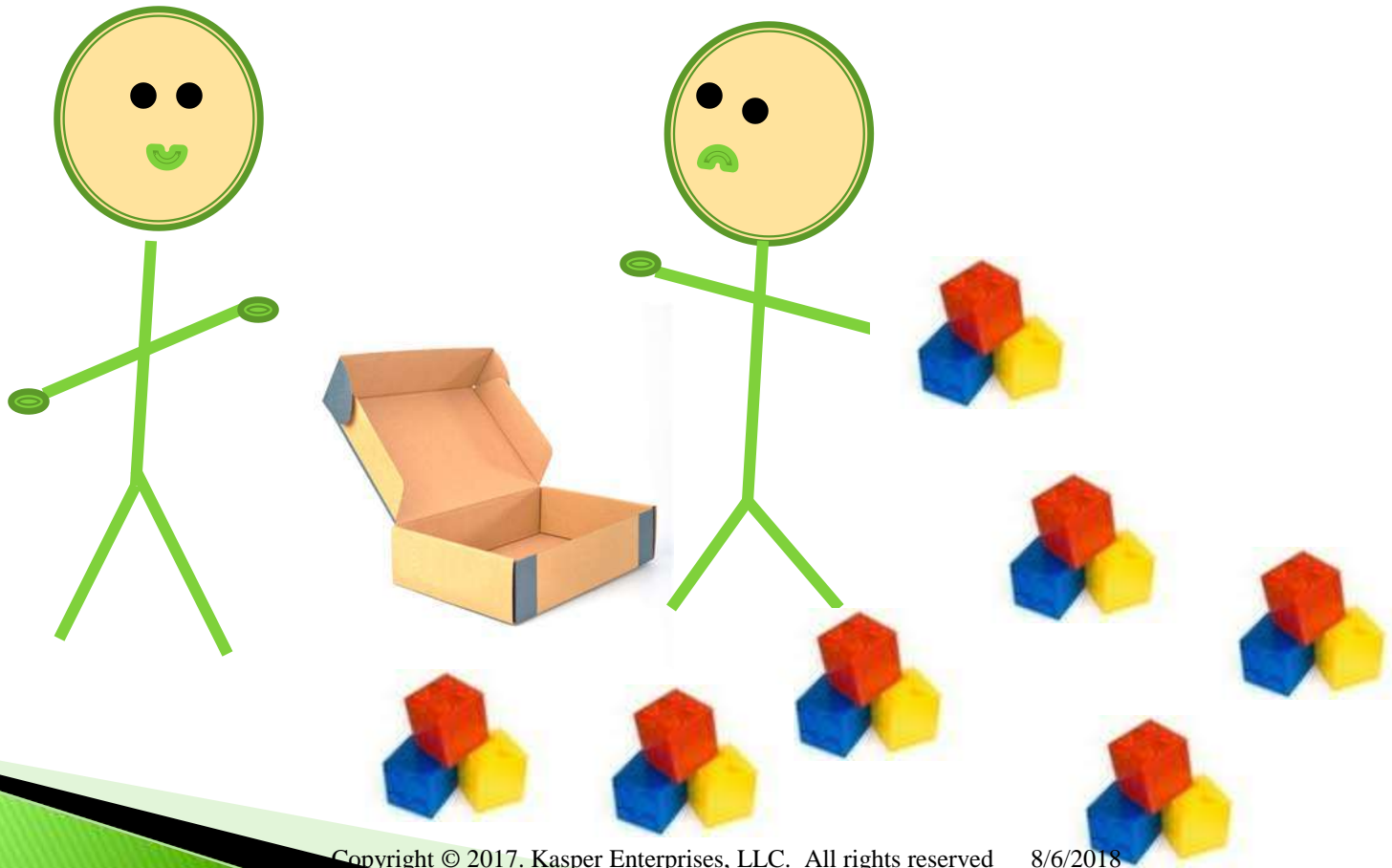
# Friends and Fitness Units

- ▶ Winter Sports
- ▶ Lawn Games
- ▶ Baseball
- ▶ Rock Climbing
- ▶ Obstacle Courses
- ▶ Volleyball
- ▶ Track and Field
- ▶ Swimming
- ▶ “First Marathon”

# Offering Help

# Offering Help

## 1. Decide if Someone needs help



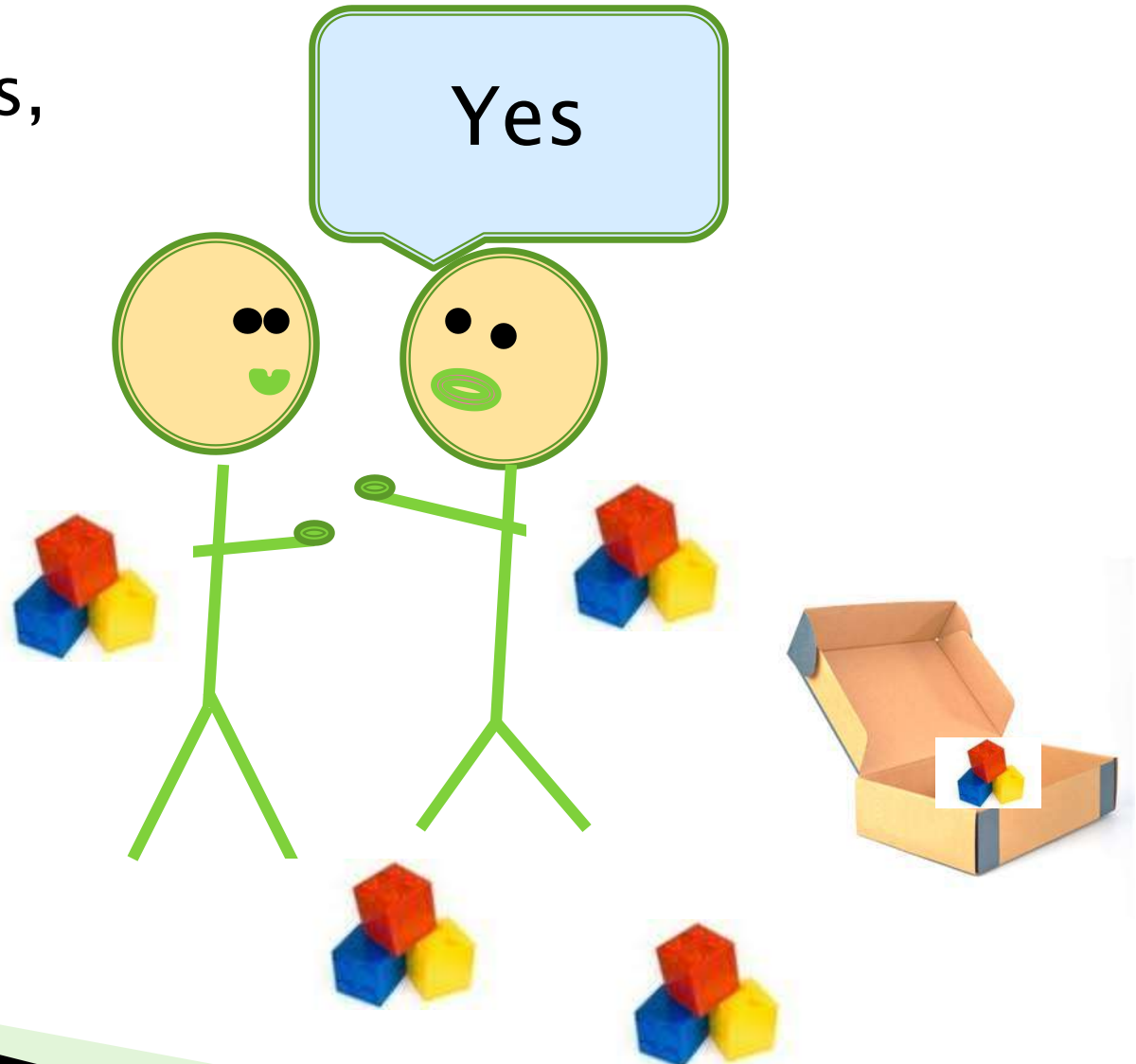


## 2. Ask “Do you need Help?”



# 3. Do it!

If they say Yes,  
Do it!



# Figures of speech

- ▶ Give me some love
- ▶ Bring it in
- ▶ Push it back
- ▶ Sista
- ▶ Bro
- ▶ Shades
- ▶ Lid
- ▶ Eyes on Me
- ▶ Jumping the gun
- ▶ Shifting it into high gear
- ▶ Running out gas
- ▶ Breaking the record
- ▶ Killed it
- ▶ Nailed it
- ▶ You're killing me

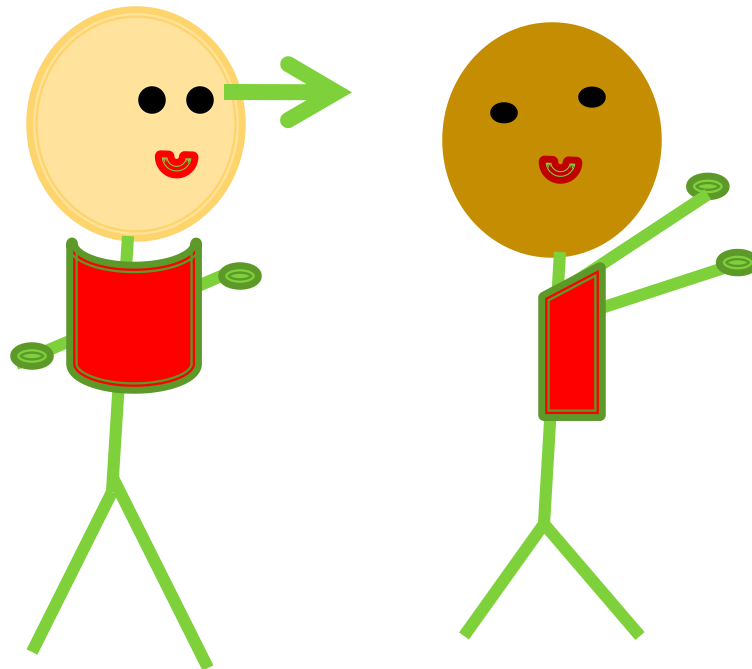
# Winter Olympics

Unit Example  
8–10 sessions

# Being A Good Sport

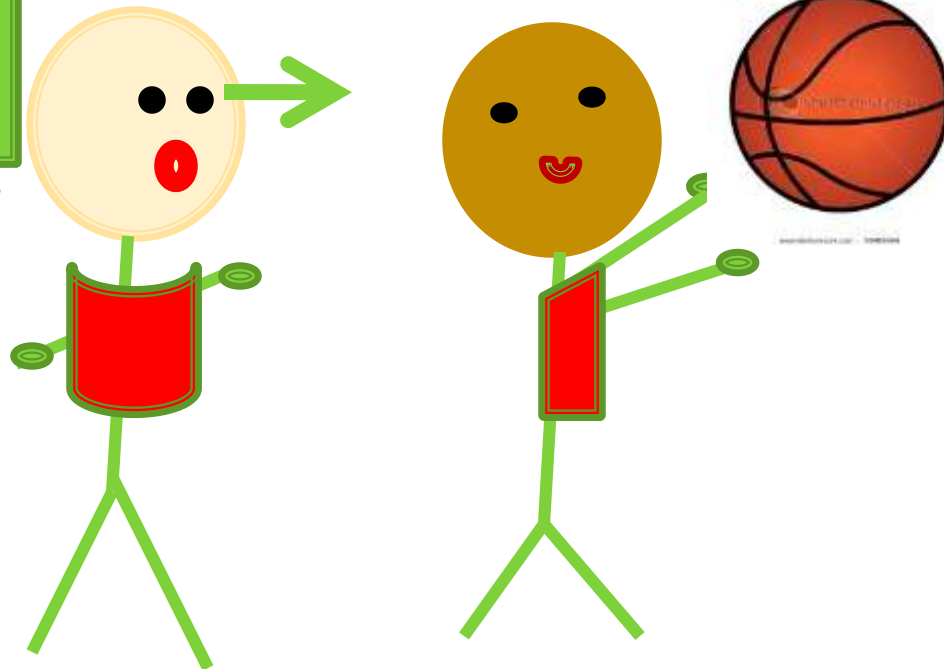
# Being a Good teammate

## 1. Watch your teammate



## 2. Cheer when your teammate takes his turn

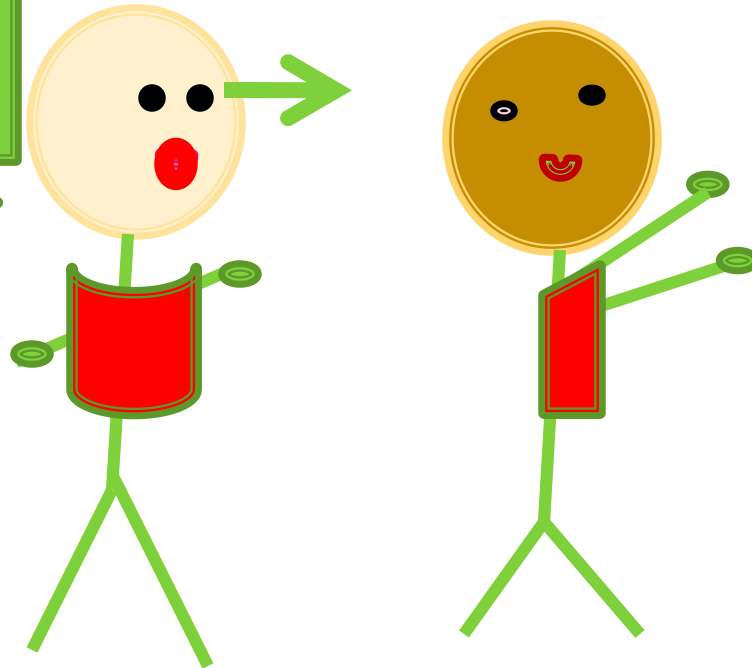
Go\_\_\_ go!  
You can do it!  
Come on  
—!





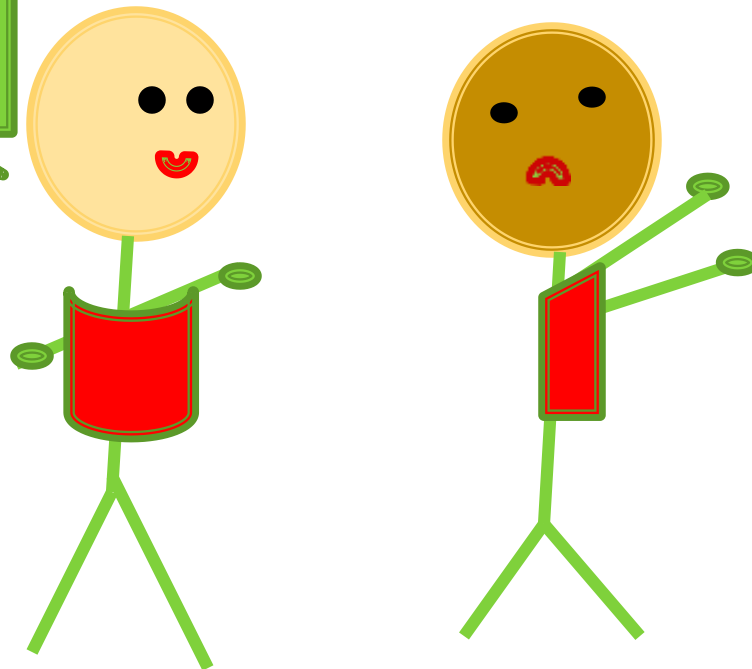
## 2. Cheer when your teammate does a great job

You did it!  
Great Job!  
Sweet!  
Awesome!



# If your teammate can't do it Use Encouraging Words

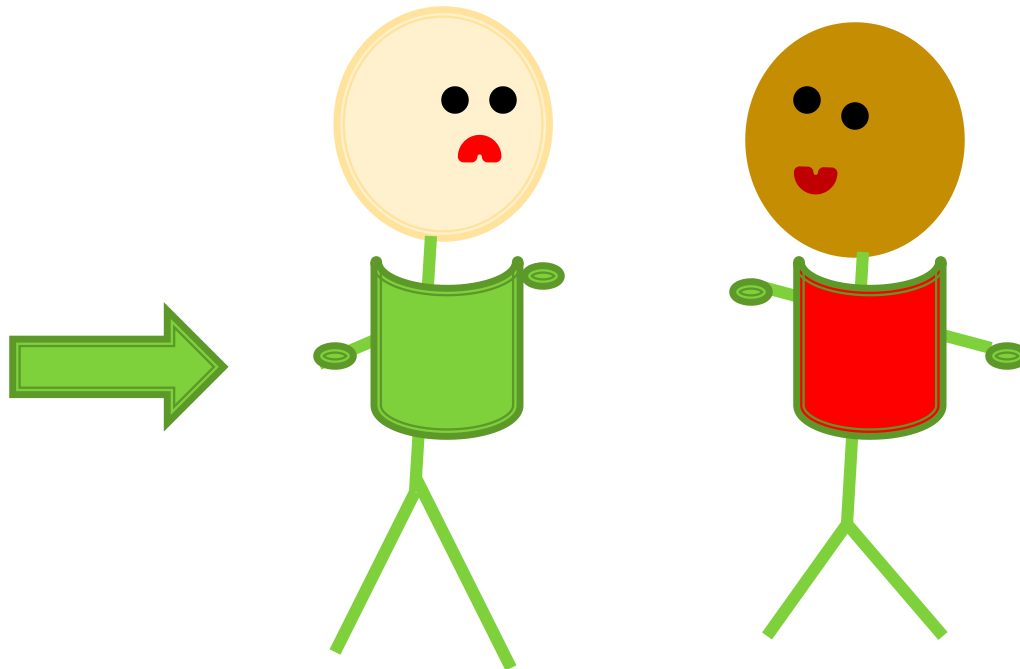
Nice Try!  
Good Try!  
You'll do  
it next  
time!



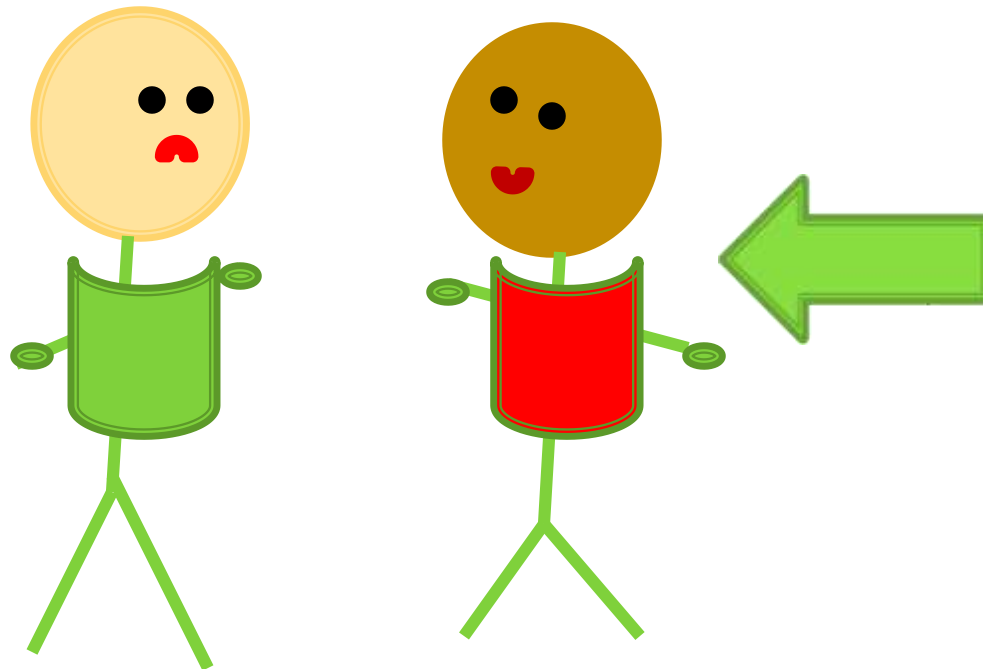
# Being A Good Sport

Being a good loser

# If you Lose, it's ok to feel a little sad or a little mad.

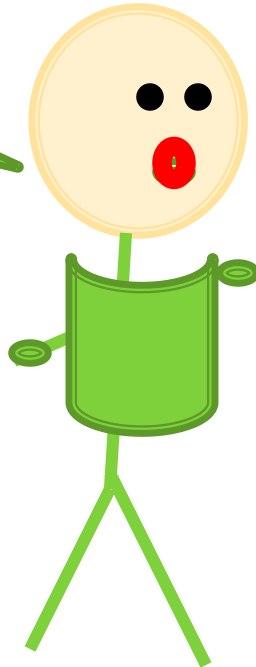


# If you Win, it's ok to feel Happy!

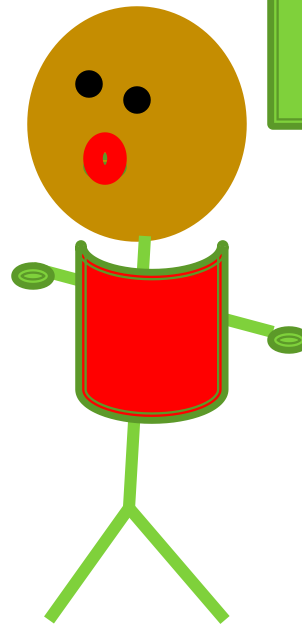


# If you win or lose, Say “Good game”

Good  
Game!



Good  
Game!



# Goals and Data Collection

# General Group/Community Skills

## GENERAL GROUP/COMMUNITY SKILLS

GOAL	OBJECTIVE	CRITERIA	PAST/CURRENT STATUS
Waiting	The learner will wait appropriately if a reinforcer is not delivered immediately following a behavior	The learner will be able to wait appropriately for turn or activity for up to 5 minutes in a group setting	BL: Engages in repeated requesting. 4/2018 Waiting for discriminated short intervals (20 seconds) with whole group
Offering assistance	The learner will independently recognize when help is needed, and identify what type of help is needed	The learner will independently recognize when help is needed, identify what type of help is needed, and will offer assistance if he has the prerequisite skills in 3/3 contrived opportunities.	BL: Offers help, but may offer wrong type of help or not be able to help. 4/2018: Offers help appropriately at least once per session, when he lacks skill, he struggles and requires prompts to ask for assistance.
Improve non-verbal pragmatics	The learner will demonstrate appropriate head position and body orientation when speaking to others	When responding to social communication initiations from others in 3 out of 4 individual and 3 out of 4 group opportunities	BL: Frequently looks down rather than orienting to teacher or scanning group. 4/2018: Will look up when coached that his idea is amazing and needs restatement
Improve volume	The learner will demonstrate appropriate volume when speaking to others	When responding to social communication initiations from others as demonstrated by 3 or fewer requests for repetition per session	BL: Frequent requests for repetition needed in group situations



# Self-Advocacy Skills

Volunteering	The learner will raise hand or follow the instruction to volunteer	The learner will raise hand or follow instruction to volunteer when he possesses the skills to conduct the task in 3/3 opportunities.	BL: Currently volunteers or offers assistance even when he lacks skills.
Raises hand to comment	The learner will raise hand and make succinct comment	The learner will raise hand and make a short, comment relevant to current topic in 3/4 opportunities.	BL: Currently fails to raise hand or raises hand and "forgets" or does not provide cogent statement in ¾ opportunities. 4/2018 Hand raising improved dramatically
Advanced negotiation	The learner will negotiate with a peer (talk it out: first/then, combine, 3 <sup>rd</sup> option) when directed/independently	The learner will use advanced/complex negotiation strategies when directed/independently without acquiescing in 3 of 4 opportunities	BL: Per parent report, acquiesces 4/2018 Noted to attempt to combine ideas x2

Managing Peer Conflict/Peer Aversive Behavior															
Antecedent-Response						Consequence				Potential function					
Does the learner engage in problem behavior when a peer is engaging in behavior that is bothering him?					If yes, What typically happens next?		Adult Separates Adult Directs Peer to stop Peer stops Peer/Adult provides dramatic response Other:				Escape Escape Escape Attention				
Does the learner frequently tattle on peers for minor issues?					If yes, What typically happens next?		Adult Separates Adult Directs Peer to stop Peer stops Peer/Adult provides dramatic response Other:				Escape Escape Escape Attention				
Is the learner overly bossy or teacher-like when a peer is engaging in behavior that is bothering him?					If yes, what typically happens next?		Adult Separates Adult Directs Peer to stop Peer Stops Peer/Adult provides dramatic response Other:				Escape Escape Escape Attention				
Is the learner taken advantage of by dominant peers?					If yes, what typically happens next?		Peer leaves area Peer/adult provides dramatic response Other				Escape Attention				
0	1	2	3	4	Appropriate reporting (three step fix it)	The learner will manage minor conflicts independently and gain adult assistance when needed.	The learner will ask once nicely, ask once strongly and get an adult for help if peer behavior is aversive and no adult				0	1	2	3	4
0	1	2	3	4	Minding your own Business	The learner will ignore or self-advocate when peers under jurisdiction of adults engage in behavior aversive to him.	The learner will ignore, walk away or ask to move if peer behavior bothers him and an adult is near the peer				0	1	2	3	4
0	1	2	3	4	Dealing with Bullies (Quick Talk and Walk)	The learner will safely advocate for his needs when presented with dominant peer (bully)	The learner will state “ I don’t like that” and move away from a bully and toward an adult				0	1	2	3	4

# Sports / Sportsmanship

## SPORTS SMARTS/SPORTSMANSHIP

GOAL	OBJECTIVE	CRITERIA	PAST/CURRENT STATUS
Coaching (Tell, Show, Do)	The learner will independently provide a directive statement, gesture, or model to coach others	The learner will independently provide a directive statement, gesture, or model to coach others as needed in 3 out of 4 opportunities	BL: Attempts to make statements but is unclear 4/2018 performing all steps with prompts

# Conversational Skills

CONVERSATIONAL SKILLS

GOAL	OBJECTIVE	CRITERIA	PAST/CURRENT STATUS
Commenting	The learner will provide an appropriate follow up comment during contrived conversations	The learner will provide an appropriate follow up comment during 3 out of 4 contrived conversations	BL: Noted occasionally
Asking appropriate follow up questions (how, where, when, what, why)	When given a conversational lead in, the learner will ask the appropriate WH question	The learner will ask a question contingent on previous statement from conversational partner in ¾ contrived situations	BL: Noted occasionally, latency, formulation issues. 4/2018 100% accuracy during game format
Asking opinion questions	The learner will ask opinion questions of others	The learner will ask a question to determine opinion of others in ¾ contrived situations.	BL: Noted occasionally 4/2018 Selecting opinion comment during game format 100% accuracy
Getting to the point	The learner will provide a succinct answer when presented with a scenario or topic	The learner will provide a 5-7 word sentence to add to an ongoing topic or answer a question in ¾ opportunities.	BL: Wordy, imprecise sentences. 4/2018: Repeats after coaching
Describing steps of a task	The learner will state the steps of a task with 5-10 word sentences	The learner will describe a short task or relate a sequence of events with 3 5-10 word sentences to the group after individual practice with staff or peer.	BL: Scaffolding or interpretation needed.
Describing the rules of a game	The learner will state the given number of rules with 5-7 word sentences	The learner will describe game rules or class rules with 3 5-10 word sentences after individual practice with staff or peer.	BL: Scaffolding or interpretation needed. 4/2018: Currently working on rules of his own invented game.
Telling a joke	The learner will tell a simple joke	The learner will tell a simple joke with good eye contact, body posture, and volume after individual practice with staff or peer.	BL: Demonstrates motivation



(Please complete at every session.)

## Daily Progress Notes Social Opportunity

Child's Name: \_\_\_\_\_

Therapist: \_\_\_\_\_ Time: \_\_\_\_\_ Date: \_\_\_\_\_

Behaviors	Target Behavior					Notes					
	Number of Instances										
Mand "What"	1					Contrived 1x Daily					
Mand "What"	1	2	3	4	5	Conversation Leads to Reinf(TMO)					
Mand "Where"	1	2	3	4	5	Conversation Leads to Reinf(TMO)					
Mand "Who"	1	2	3	4	5	Conversation Leads to Reinf(TMO)					
Mand "Which"	1	2	3	4	5	Conversation Leads to Reinf(TMO)					
Coaching	1	2	3	4	5	Talk Show Do					
Negotiation	1	2	3	4	5	Simple Complex					
Self-Advocacy	1	2	3	4	5	Votes volunteer clarify missed					
Conversation	1	2	3	4	5	4+ exchanges only					
Cooperate Goal	1	2	3	4	5	Adult instructed Peer initiated					
Coping Strategy	1	2	3	4	5	Tt cdc cb ls 8 break					

General Comments:

Therapist Signature: \_\_\_\_\_



## Daily Progress Notes

(Please complete at every session.)

Child's Name: \_\_\_\_\_

Therapist: \_\_\_\_\_ Time: \_\_\_\_\_ Date: \_\_\_\_\_

Behaviors	Problem Behavior					Comments	Time Met	
	Number of Instances							
Greeting	1	2	3	4	5			
Mands to Peers	1	2	3	4	5			
Responds Phys	1	2	3	4	5			
Initiates Phys	1	2	3	4	5			
Group Instruction	1	2	3	4	5			
Accepts Items	1	2	3	4	5			
Coop Peer	1	2	3	4	5			
Choral Respond	1	2	3	4	5			
Self Stim Circle	1	2	3	4	5			
Self Stim Active	1	2	3	4	5			

**General Comments:**

# Daily Progress Notes

(Please complete at every session.)

Child's Name: \_\_\_\_\_

Therapist: \_\_\_\_\_ Time: \_\_\_\_\_ Date: \_\_\_\_\_

Behaviors	Target Behavior					Notes						
	Number of Instances											
Cheering	1	2	3	4	5	Words	Gestures					
Coaching	1	2	3	4	5	Talk	Show	Do				
Coping Strategy	1	2	3	4	5	Tt	cdc	cb	ls	fb	z	
Negotiation	1	2	3	4	5	simple	complex					
Offer Assistance	1	2	3	4	5	Contrived	Naturally Occurring					
Finds a Partner	1	2	3	4	5	Find,	stays	handles	less preferred			
Self-Advocacy	1	2	3	4	5	Votes	volunteer	clarify	missed			
Conversation	1	2	3	4	5							
Cooperate Goal	1	2	3	4	5							

**General Comments:**



# Single Item Daily Probe for \_\_\_\_\_

Date →		7/15	7/19	7/22	7/26	10/26					7/15	7/19	7/22	7/26	
Therapist →															
1	Hands on head	Y N	Y N	Y N	Y N		1	Four Square			Y N	Y N	Y N	Y N	Y N
2	Choral response	Y N	Y N	Y N	Y N		2	Tag			Y N	Y N	Y N	Y N	Y N
	Find a partner						3	Simon Says			Y N	Y N	Y N	Y N	Y N
3	Get close	Y N	Y N	Y N	Y N		4	Race			Y N	Y N	Y N	Y N	Y N
4	Eye contact	Y N	Y N	Y N	Y N		5	Freeze Tag/stuck mud			Y N	Y N	Y N	Y N	Y N
5	Ask	Y N	Y N	Y N	Y N		6	Keep Away			Y N	Y N	Y N	Y N	Y N
	Ask to Play						7	Soccer			Y N	Y N	Y N	Y N	Y N
6	Get close	Y N	Y N	Y N	Y N		8	Kickball			Y N	Y N	Y N	Y N	Y N
7	Eye contact	Y N	Y N	Y N	Y N		9	Sharks/Minnows			Y N	Y N	Y N	Y N	Y N
8	Say name	Y N	Y N	Y N	Y N						Y N	Y N	Y N	Y N	Y N
9	Ask	Y N	Y N	Y N	Y N		1	Pass the ball			Y N	Y N	Y N	Y N	Y N
	Persist						2	Foot on the ball			Y N	Y N	Y N	Y N	Y N
10	Tap shoulder	Y N	Y N	Y N	Y N		3	Jump the Hurdle			Y N	Y N	Y N	Y N	Y N
11	Say name	Y N	Y N	Y N	Y N		4	Throw the ball			Y N	Y N	Y N	Y N	Y N
	Offer assistance						5	Pitch the ball			Y N	Y N	Y N	Y N	Y N
12	Notice need	Y N	Y N	Y N	Y N		6	Catch the ball			Y N	Y N	Y N	Y N	Y N
13	Ask in a nice way	Y N	Y N	Y N	Y N		7	Run the bases			Y N	Y N	Y N	Y N	Y N
14	Cheer	Y N	Y N	Y N	Y N										
15	Getting in line	Y N	Y N	Y N	Y N						Y N	Y N	Y N	Y N	Y N
16	Smoothie	Y N	Y N	Y N	Y N						Y N	Y N	Y N	Y N	Y N
											Y N	Y N	Y N	Y N	Y N
											Y N	Y N	Y N	Y N	Y N



# Three step fix it

Three-step fix it yourself strategy:

1. Ask once nicely
2. Ask once strongly
3. Get an adult for help

# Benefits of the Group Contingency

- ▶ Encourage each other
- ▶ Coach each other
- ▶ Learn to influence each other
- ▶ Generate new games
- ▶ Generate cohesive rules to games
- ▶ Work it out
- ▶ Problem Solve

# INTENSIVE CLASS RESEARCH and RESULTS

Or go to 296

# Purpose

- The purpose of this study was to examine the effects of a behaviorally-based treatment package to improve social skills, inferencing, and motor skills for children with autism spectrum disorder age 6-11 within the context of a fitness based social communication group.

- Specific skills in three domains: social communication/social skills, logical inferencing, and motor skills were selected for treatment.
- Maintenance of effects at a three months follow up was probed.

# Method

## ***Participants***

- Seven children with a diagnosis of autism spectrum disorder ages six to eleven with Intermediate or Advanced learner profiles according the Assessment of Basic Language and Learning Skills-Revised (Partington, 2006), or the Verbal Behavior Milestones Assessment and Placement Program (Sundberg, 2008)

- Typically developing peers who received four hours of training in interacting and promoting social and motor skills in children with autism spectrum disorder, entrapment and self-reinforcement via a token system

# Peer Training

Peers taught strategies

- ▶ Gaining attention
- ▶ Prompting requests
- ▶ Gaining attention and persisting until a child responds to a question or direction
- ▶ Reinforcing social attempts
- ▶ The primary intervention targets involved pairing with reinforcement, manding and initiating and maintaining interactions with the peer.
- ▶ Reinforcement System



## ***Setting***

- Local community center comprised of indoor meeting room with PowerPoint capabilities, kitchen area, and outdoor playing field

## Procedures

- Each participant with autism spectrum disorder received treatment in a group format for 3 hours, 5 days per week for two weeks.

- ▶ Behavioral Skills Training including a brief explanation of the target skill with choral responding, modeling, guided practice, and feedback during application exercises was conducted.

- Video models were included for social skills and inferencing.
- Role play was included for social skills only.
- Each child with autism spectrum disorder was provided with a shadow who was an employee of The Center and received 4 hours of training on facilitation of the goals of the study as well as probe procedures and scoring criteria. Staff engaged in role play until proficiency was demonstrated and until a score of 80% or higher was achieved on a quiz containing the training content.

- ▶ Corrective feedback was provided to staff if needed by the lead instructor during training and throughout the study.

# Measurement

- Baseline: Baseline cold probe data were collected for each skill for each participant during the initial session

## Measurement

- For social skills, the lead instructor would alert staff and peer models that a probe was about to be conducted. An instruction would be provided to the group and no prompting occurred. Shadows scored participant responses as Y or N for correct and incorrect/no response respectively. Some social skills contained several components (e.g. Finding a partner: get close, eye contact, mand) and each component was scored individually.

- ▶ Baseline for motor skills consisted of the personal trainer modeling each skill individually for each participant who was then asked to perform the skill. Personal trainer and lead instructor and/or shadow scored the response according to criteria as detailed above.



- Baseline for Inferencing consisted of viewing a 1-2 minute video of children engaging in a recess game and each participant was asked to tact the game. Probe data was collected as detailed above.

# Single Item Daily Probe for \_\_\_\_\_

Date →		7/15	7/19	7/22	7/26	10/26					7/15	7/19	7/22	7/26	
Therapist →															
1	Hands on head	Y N	Y N	Y N	Y N		1	Four Square			Y N	Y N	Y N	Y N	Y N
2	Choral response	Y N	Y N	Y N	Y N		2	Tag			Y N	Y N	Y N	Y N	Y N
	Find a partner						3	Simon Says			Y N	Y N	Y N	Y N	Y N
3	Get close	Y N	Y N	Y N	Y N		4	Race			Y N	Y N	Y N	Y N	Y N
4	Eye contact	Y N	Y N	Y N	Y N		5	Freeze Tag/stuck mud			Y N	Y N	Y N	Y N	Y N
5	Ask	Y N	Y N	Y N	Y N		6	Keep Away			Y N	Y N	Y N	Y N	Y N
	Ask to Play						7	Soccer			Y N	Y N	Y N	Y N	Y N
6	Get close	Y N	Y N	Y N	Y N		8	Kickball			Y N	Y N	Y N	Y N	Y N
7	Eye contact	Y N	Y N	Y N	Y N		9	Sharks/Minnows			Y N	Y N	Y N	Y N	Y N
8	Say name	Y N	Y N	Y N	Y N						Y N	Y N	Y N	Y N	Y N
9	Ask	Y N	Y N	Y N	Y N		1	Pass the ball			Y N	Y N	Y N	Y N	Y N
	Persist						2	Foot on the ball			Y N	Y N	Y N	Y N	Y N
10	Tap shoulder	Y N	Y N	Y N	Y N		3	Jump the Hurdle			Y N	Y N	Y N	Y N	Y N
11	Say name	Y N	Y N	Y N	Y N		4	Throw the ball			Y N	Y N	Y N	Y N	Y N
	Offer assistance						5	Pitch the ball			Y N	Y N	Y N	Y N	Y N
12	Notice need	Y N	Y N	Y N	Y N		6	Catch the ball			Y N	Y N	Y N	Y N	Y N
13	Ask in a nice way	Y N	Y N	Y N	Y N		7	Run the bases			Y N	Y N	Y N	Y N	Y N
14	Cheer	Y N	Y N	Y N	Y N										
15	Getting in line	Y N	Y N	Y N	Y N						Y N	Y N	Y N	Y N	Y N
16	Smoothie	Y N	Y N	Y N	Y N						Y N	Y N	Y N	Y N	Y N
											Y N	Y N	Y N	Y N	Y N
											Y N	Y N	Y N	Y N	Y N

- ▶ Post Treatment data at the end of the second week and follow up data three months after the treatment ended were collected in a manner identical to the initial probe. One subject was not available for follow up probe.

# Experimental Design

- AB design with maintenance probe across subjects
- IOA calculated using:  $\text{Agreements} / (\text{Agreements} + \text{Disagreements})$  and was greater than 80%.

# Results

- Analysis of results reveal that all but one participant (who achieved a perfect score on social skills in baseline) demonstrated improvement in social skills and inferencing at the end of treatment and maintained higher levels of accuracy over baseline at the three month follow up.

- ▶ Results of motor skills probe were less consistent with 4/7 participants demonstrated improvement at the study's end and maintained at follow up; one subject achieving a perfect score on probe and maintaining, and two subjects exhibiting lower accuracy at study completion, but improvement at the three month follow up probe.

- Parent report indicated generalization of skills to other environments.
- Three participants are currently participating in community offered athletic activities.

# Discussion

- Results suggest that this treatment package may be effective in improving social skills, inferencing, and fitness, and may promote greater community integration in athletically-oriented social activities.
- A major limitation is the complex treatment package which prohibits identification of critical independent variables.



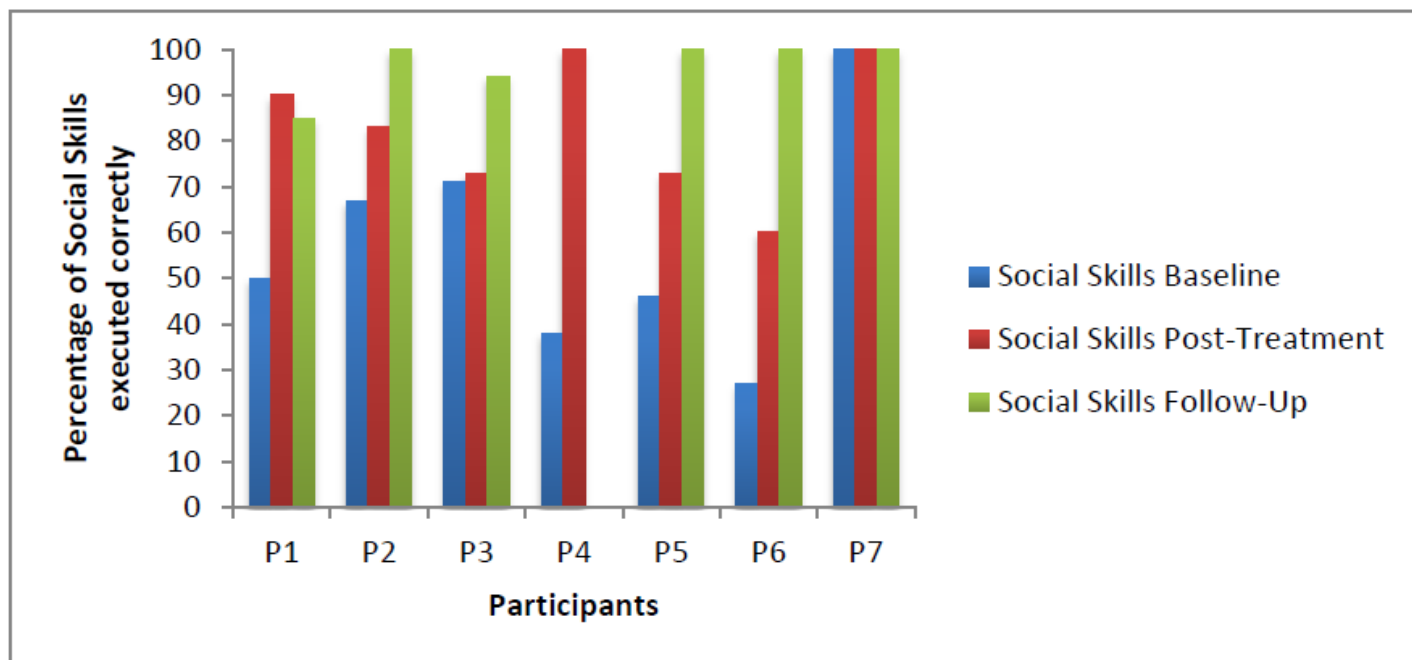


Figure 1. Percentage of social skills executed correctly by participants in baseline, post-treatment, and at three month follow-up.

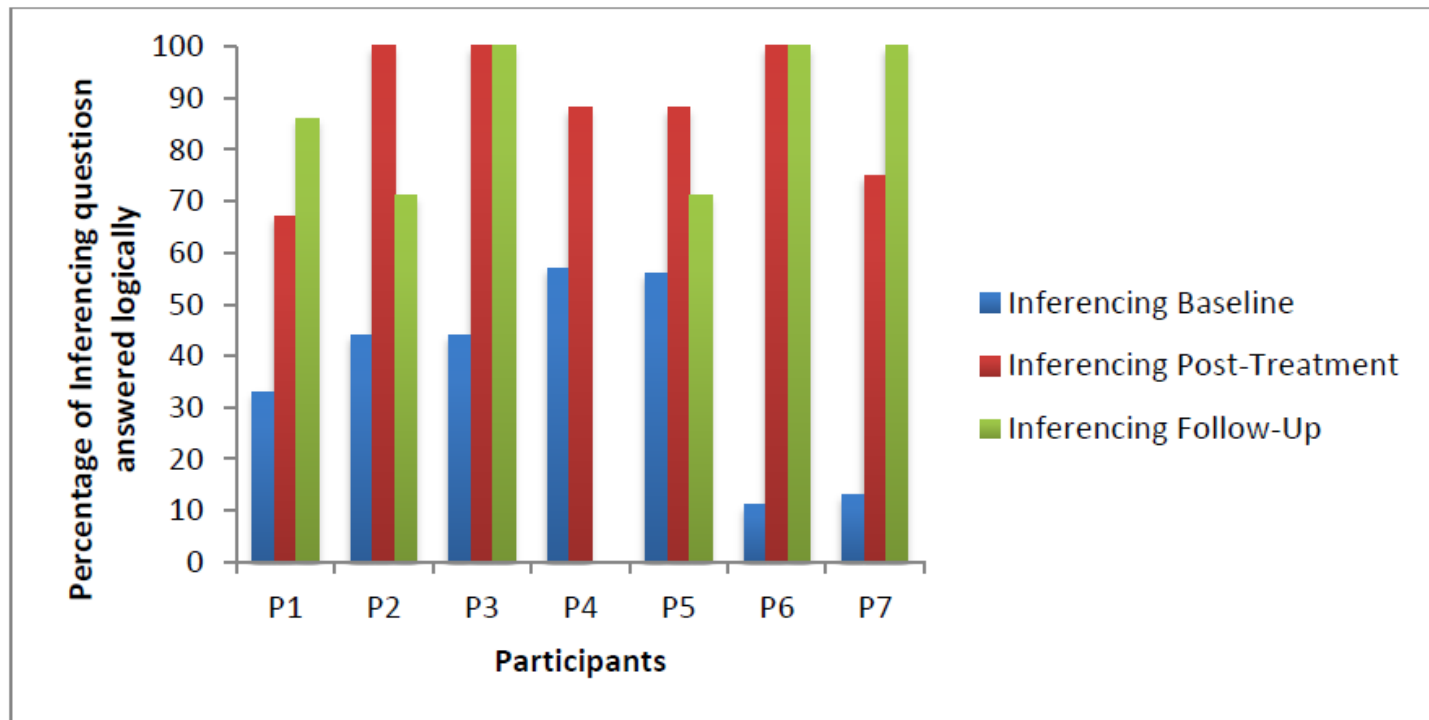


Figure 2. Percentage of inferencing questions answered logically by participants in baseline, post-treatment and at three month follow up.

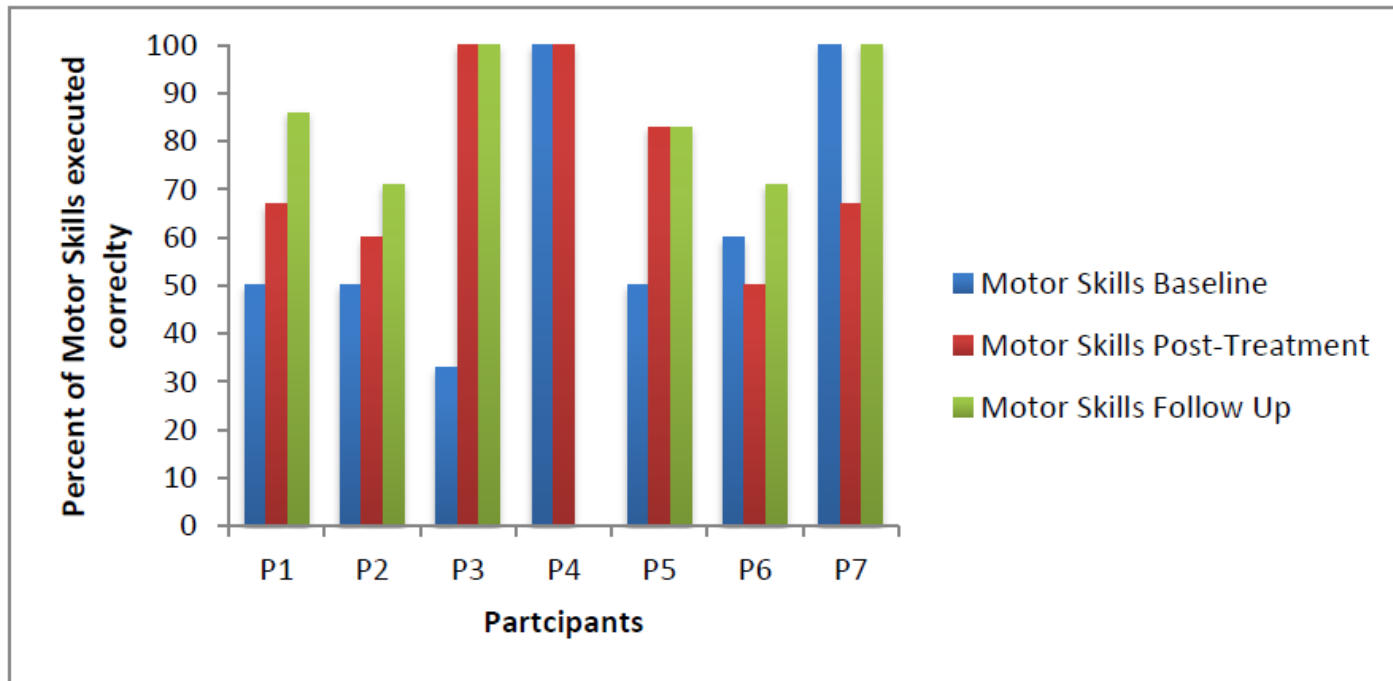


Figure 3. Percentage of motor skills executed correctly by participants in baseline, post –treatment, and at three month follow up.

# Social Skills Instruction

- ▶ Integration or proximity is NOT social skills instruction
- ▶ Social skills training require instruction, modeling, guided practice with feedback, generalization and monitoring.
- ▶ Facilitators (peers and adults) require training, monitoring, and feedback.
- ▶ Data collection is essential to ensure that training is effective

# Additional Models

- ▶ Facilitated Play Groups
- ▶ Social skills groups (small, individual)
- ▶ Facilitated Recess
- ▶ Lunchtime Social Skills groups
- ▶ Afterschool social clubs
- ▶ Facilitated camp or other club (girl scouts, dance, etc.)
- ▶ Social skill of the month

# Life Long Skills

- ▶ In facilitated peer interaction, children are provided with guided practice in social skills, such as how to communicate, cooperate, and solve problems. They practice controlling their emotions and responding to the emotions of others. They develop the ability to negotiate.
- ▶ These are life long skills that will impact their quality of life.

“Social Interaction skills are critical to successful social, emotional, and cognitive development. Effective social skills allow us to elicit positive reactions and evaluations from peers as we perform socially approved behaviors” (Ladd & Mize, 1983)

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