



8th Annual Autism/Asperger's Conference
LIFE-LONG STRATEGIES
FOR SUCCESS

SCHOOL ★ HOME ★ COMMUNITY ★ WORK

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WORKSHOP A-1

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PRACTICAL SOLUTIONS: SUCCESSFUL INCLUSION OF INDIVIDUALS WITH HIGH FUNCTIONING AUTISM/ASPERGER'S

(All Ages track, BCBA track)

ABSTRACT:

Individuals with autism spectrum disorders exhibit a variety of behavioral and learning characteristics that interfere with their success in educational and social contexts. Individuals with ASD's who have high cognitive ability are sometimes misunderstood, as their deficits may be more subtle and their strengths may lead others to underestimate the extent to which they require support. It may also be difficult for peers to understand their unique needs. This presentation will review some of the challenges experienced by learners with ASD's, and will review the strategies and supports that can increase their success in inclusive settings.

OBJECTIVES:

1. Participants will identify common behavioral and learning challenges that interfere with social integration and require supports.
2. Participants will be introduced to a variety of ways in which students with autism can be supported in inclusive settings.
3. Participants will identify how challenging behaviors can be understood, assessed, and reduced.

Dr. Mary Jane Weiss has written numerous articles and four books on autism, *Right from the Start: Behavioral Intervention for Young Children with Autism* (co-authored with Sandra Harris), *Reaching Out, Joining In: Teaching Social Skills to Young Children with Autism* (co-authored with Sandra Harris), *Sibling Stories: Reflections on Life with a Brother or Sister on the Autism Spectrum* (co-authored with Lynne Stern Feiges) and *Practical Solutions for Educating Young Children with High-Functioning Autism and Asperger's Syndrome*. Dr. Weiss is an expert at promoting successful inclusive experiences; building social skills; evaluating the efficacy of autism treatments; maximizing family members' practical skills; and evaluating the impact of ABA in learners with autism.

**Practical Solutions:
Successful Inclusion
of Individuals with
High Functioning
Autism/Asperger's**

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Presentation at Milestones
Autism/Asperger's Conference
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The Current Context

- More students with ASD's are included than ever before
- There are tremendous advantages to inclusive environments for them, and for their peers
- Appropriate supports make the difference

Major Points

- Inclusion is a right
- Inclusion is an option
- Inclusion is a continuum
- Individualization is key

**Learning Challenges
Associated with ASD's**

- Attentional Impairments
 - Selective attention may be poor
 - Sustained attention may also be problematic
 - Learning readiness may be absent
- Consequences
 - Difficulty keeping up with group
 - Reduced independence
 - Discrepancy from peers

Learning Challenges
(continued)

- Learning to Learn Difficulties
 - Reliance on external reinforcement
 - Poor transfer of learning across settings/contexts
 - Not learning readily from others
- Consequences
 - Stigmatization
 - Difficulty with diversity of presentations and topics

Learning Challenges
(continued)

- Communication Deficits
 - Impaired functional use of communication
 - Difficulties in understanding when to communicate
 - Difficulties with volume, pitch, and rhythm
 - Low rates of spontaneous speech
- Consequences
 - Reduced independence
 - Passivity
 - Frustration

Learning Challenges

(continued)

- Deficits in Play/Social Behaviors
 - Play and/or recreation may be idiosyncratic or ritualistic
 - May not readily respond to initiations made by peers or be interested in age appropriate activities
 - Difficulties understanding and following rules, understanding turn taking, and being reciprocal
 - May have little available language that can be used in play or other recreational/social situations
 - Consequences
 - Reduced options for social interaction
 - May not be approached by others

How do behavior analysts approach inclusion?

- The same way they approach other contexts

Definition of ABA

- Applied Behavior Analysis is the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for behavior change.”
- Cooper, Heron, & Heward, 2007

Critical Aspects of that Definition

- Social significance
- Functional relations

Dimensions of ABA

- What are some defining features of the science?
- What defines clinical practice and evaluation of outcome?

Characteristics of Applied Behavior Analysis

- Paper by Baer, Wolf, & Risley (1968) "Some current dimensions of applied behavior analysis"
 - defined the purpose of the new field
 - set critical standards for research in the field, and is applicable to clinical practice as well
 - most widely cited publication in ABA

The 7 Characteristics of a Study in ABA

- 1 **Applied**
- 2 **Behavioral**
- 3 **Analytical**
- 4 **Technological**
- 5 **Conceptually Systematic**
- 6 **Effective**
- 7 **Display Generality**

Applied

- Determined by the *social significance* of the behavior under investigation
- Therefore, a study/intervention must examine behavior that has importance to the individual.

Behavioral

- The behavior studied must be one in *need of improvement*
- It must be possible to *measure* the behavior in need of improvement

Analytic

- Must demonstrate a *functional relation* between the manipulated events and the behavior of interest.

Technological

- All of the procedures used must be completely *identified* and *precisely* described.
- OPERATIONAL DEFINITIONS
- CLEAR DESCRIPTIONS OF PROCEDURES
 - Enables replication

Conceptually Systematic

- Procedures for behavior change are described in terms of the *relevant (basic, behavioral) principles* from which they were derived

Effective

- Whereas some investigations produce results with theoretical or statistical significance, applied behavior analysis must produce *clinical or social* significance to be judged effective.
- Applied behavior analysts discontinue ineffective treatments and do not recommend interventions known to be ineffective.

Generality

- Behavior change lasts over *time*,
- appears in environments *other than* the one in which the behavioral techniques were applied, or
- spreads to other behaviors not directly treated by the behavior change techniques.

Functional Relation

- Independent and *dependent* variables
- IV – exists independently from phenomenon to be assessed
- Requires *manipulation and control* of the independent variable
- Causal relationship

Evaluation of Outcome

- Transfer to natural environment
- Independence
- Spontaneity

How does this relate to supporting individuals in inclusive settings?

- How can ABA be implemented in these settings?
- How can we continue to focus on functional relations, objective evaluation of progress, and movement toward ultimate goals in a systematic way?

Strategy

PROGRAM FOR SUCCESS

Top 10 List for Making Inclusion Successful

- Match the learner to the environment and activities
- Have goals identified for the inclusive experience
- Provide appropriate environmental and curricular accommodations
- Provide appropriate visual supports

Top 10 list (continued)

- Train staff in inclusive setting
- Provide support (when needed) in the form of trained aide/shadow
- Prompt appropriately
- Plan for adequate reinforcement
- Decide on how peers will be utilized
- Take data on progress and make data-based treatment decisions

1. Match the learner to the environment and the activities

- Choose an environment that is likely to facilitate success
 - Degree of structure
 - Teacher style
- Choose activities likely to lead to success
 - Preferred
 - Easy
 - Short in duration (initially)

2. Identify goals for the inclusive experience

- For each learner, identify what results are expected
- What are we working on in this environment at this time?
 - Social skills
 - Academic knowledge
 - Learning in a group
 - Generalization of skills

3. Provide appropriate curricular and environmental adaptations

- Ensure that the environment (and the expectations) are understood by and functional for the learner with autism
 - Physical environment
 - Materials
 - Assignments
 - Visual Cues

Preparing the Classroom for a Student with ASD: Physical Environment

- How can I set up the *physical environment* to increase the likelihood of the student being successful?
 - Distraction
 - Proximity to teacher

Preparing the Classroom for a Student with ASD: Curricular Changes

- How can I present *material* to increase the likelihood that the student will be successful?
 - Simplify instructions.
 - Use clear motivational systems, with visual cues where possible.
 - Write out instructions or give pictorial cues for lengthy, multi-step activities.
 - Present information across multiple/preferred senses where possible.

Preparing the Classroom for a Student with ASD: Curricular Changes

- How can I structure *assignments* to increase the likelihood of the student being successful?
 - Consider possible modifications.
 - Incorporate preferred materials and modes of instruction where possible
 - Consider cooperative learning groups
 - Highlight student's strengths where possible

4. Provide appropriate visual supports

- Consider possible visual cues.
 - Posted schedules
 - Digital clocks
 - Labels for cubbies/desks
 - Written reminders
 - Timers
 - Individualized motivational systems

5. Train staff in the inclusive setting

- Training needs
 - Understanding the learning characteristics of students with ASD's
 - Understanding roles and responsibilities
 - Understanding how to effectively reinforce
 - Understanding how to effectively prompt

6. Provide support in the form of trained aide/shadow

- For many students, success in the inclusive environment will depend on the presence of a trained paraprofessional

Aide vs. Shadow

Understanding a continuum of assistance

Role Flexibility

- Recognize that a shadow will go in and out of shadowing and aide roles
 - Across activities
 - Across settings
 - In response to the learner's needs
 - Goal is to fade assistance when it is possible to do so

A Shadow does not provide the same level and type of assistance as a 1 to 1 aide

<ul style="list-style-type: none">➢ The 1 to 1 Aide<ul style="list-style-type: none">❖ Devotes full attention and time to individual student❖ May provide special lesson or special adaptations of classroom activities to student	<ul style="list-style-type: none">➢ The Shadow<ul style="list-style-type: none">➢ Knows when to offer support➢ For the most part, supports participation in usual classroom activities
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A Shadow does not provide the same level and type of assistance as a 1 to 1 aide

<ul style="list-style-type: none">➢ The 1 to 1 Aide<ul style="list-style-type: none">❖ Often sits in front of or adjacent to student❖ Offers intrusive assistance❖ Uses very direct reinforcement❖ Often a continuous or very frequent reinforcement schedule	<ul style="list-style-type: none">➢ The Shadow<ul style="list-style-type: none">❖ Often sits or stands behind student, and may stand a distance behind student❖ Offers the least intrusive assistance❖ Uses very subtle forms of reinforcement wherever possible❖ Employs an intermittent reinforcement schedule and seeks to thin schedule
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A Shadow does not provide the same level and type of assistance as a 1 to 1 aide

<ul style="list-style-type: none">➢ The 1 to 1 Aide<ul style="list-style-type: none">❖ Emphasizes skill acquisition❖ May provide modeling of desired responses❖ Student takes instruction from aide	<ul style="list-style-type: none">➢ The Shadow<ul style="list-style-type: none">❖ Emphasizes incidental learning and generalization of acquired skills across settings❖ Directs student's attention to peer models❖ Student takes instruction from teacher
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A Shadow does not provide the same level and type of assistance as a 1 to 1 aide

<ul style="list-style-type: none">➢ The 1 to 1 Aide<ul style="list-style-type: none">❖ Data collection efforts often involve skill acquisition programs	<ul style="list-style-type: none">➢ The Shadow<ul style="list-style-type: none">❖ Data collection efforts typically involve the maintenance and generalization of skills, the spontaneous use of language, social interaction, etc.
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Determine What Assistance Level Is Needed

- Work as a team to identify times when it is feasible to function as a shadow
- Also identify times when there is a need for an aide-level of support

What Is a Shadow?

- A "shadow" is an individual who uses systematic prompting and reinforcement to support a student's participation in a more inclusive, less restrictive environment.

What Broad Issues Must Be Considered by the Shadow?

- Shadows recognize that the first few months are a critical transition period and present multiple challenges for the target student
- Shadows must be keen observers of the target student in all skill domains and within all educational settings

What Broad Issues Must Be Considered by the Shadow? (continued)

- Shadows strive to provide feedback and guidance in as least intrusive a manner as possible

What Broad Issues Must Be Considered by the Shadow? (continued)

- Shadows are aware of the need to constantly assess and evaluate the effectiveness of potential reinforcers. Shadows appreciate the ongoing and essential nature of this task.

Overall Objectives of Shadowing

- To assist student in acquiring skills and information from the regular educational setting
- To provide feedback in a manner that minimizes prompt dependency
- To promote the transfer of skills
- To promote the learning of new skills within the classroom environment

Overall Objectives of Shadowing (continued)

- To enhance the student's socialization with classroom peers during both group work and social activities
- To facilitate learning from peers
- To promote transitions across classroom activities with minimal disruptive behavior

Overall Objectives of Shadowing (continued)

- To promote appropriate, independent activities
- To minimize and prevent challenging behaviors

7. REINFORCEMENT

Provide reinforcement effectively

Review of Key Issues in Providing for Adequate Reinforcement

- Understand reinforcement
- Use reinforcement
- Select rewards that are motivating
- Use a variety of rewards
- Use rewards immediately
- Use rewards contingently
- Use reinforcement differentially

Critical Issue: Identifying Preferences

Assess preferences
Informally
Formally (how can we collect data??)
Approach
Comparative
Hierarchical
Why is this important??

Preferences

Consider how preferred a reward is
more highly preferred rewards should be reserved
Utilize information in planning activities
preferred activities can be earned
Incorporate choice
choice is highly reinforcing

8. PROMPTING

Provide prompts effectively

What Are Prompts?

- Additional assistance that increases the likelihood that a particular behavior will occur
- Techniques that can be used across a wide range of settings and can facilitate a wide variety of responses.

Critical Aspects of Prompting

- Prompts should be used to aid acquisition
- Prompts should be faded to ensure independence
- Prompt dependency is a risk in individuals with autism
 - do not use rigid hierarchies
 - vary prompts
 - check for fading readiness
 - consider using a time delay strategy
 - use the least intrusive prompt necessary (for mastered skills)

Prompts Can Take on Many Forms....

- Physical
- Gestural
- Positional
- Verbal
- Visual/Textual
- Tactile
- Model

Prompting Data Provide an Index of Independence

- Data may be collected on the prompts necessary in given contexts
 - number
 - types
 - rate
- Ancillary data can serve similar functions
 - % of times student responded independently to the teacher

Utility of Prompting Data

- These data can be compared to the assistance provided to a typical learner in that environment
 - how discrepant?
- These data can guide decisions about supports and about the fading of supports
- These data can be a powerful measure of change

Summary of Training Issues

- Identify and train key players
- Focus on shadowing
- Focus on the effective use of reinforcement
- Focus on the effective use of prompting

9. Decide on How Peers Will Be Included

- How will integration be done?
- Will peers be informed?
- Will peers be trained?

Broad Conclusions

- Peer mediated intervention strategies are highly successful
- Teaching peers to interact effectively is very helpful
- Providing time for children with and without disabilities to be together increases the acceptance of children with disabilities by their peers
 - And may have other benefits as well

Peer Training

- Basic friendship skills
- Understanding of ASD's (if appropriate)
 - Helps with attribution
- Specific skills
 - Getting attention
 - Prompting (!!)
 - Reinforcing (!!)

Also Attend to Peers' Needs

- Focus on basic skills for learners with ASD's
 - Reduce challenging behaviors
 - Increase responsiveness
 - Ensure that initiations are understood and are appropriate
 - Facilitate social comprehension
 - Look at speed of response

10. Take data on progress and use data for decision making

- Collect data
 - Generalization of skills
 - Mastery of new skills
 - Social behaviors (initiations, responses)
 - Behavioral data
 - Engagement
 - Play, Shared Leisure
 - Conversation

What Can Data Help with?

- Making adjustments in instruction
 - Add reinforcement
 - Change prompts
 - Change goal
- Decide about supports based on data
 - Need for intervention?
 - Need for additional supports?
 - Systematic fading plans

What are some issues that behavior analysts can assess?

- Challenging behaviors
 - Conduct functional assessments and functional analyses
 - Generate function-specific behavior intervention plans
 - Develop replacement skill programs
 - Recommend antecedent strategies
 - Include fading criteria
 - Evaluate success and recommend alterations

What are some issues that behavior analysts can assess?

- Social skills
 - An area in which ABA intervention is often not recommended
 - An area in which there is less research to guide us, and many unsubstantiated claims of effectiveness

Social Skills

- What can we do?
 - Operationally define objectives
 - Develop data collection methods to track success
 - Outline systematic methods of teaching
 - Inform teams regarding levels of evidence for common approaches
 - Conduct component analyses

What are some issues that behavior analysts can assess?

- Skill acquisition
 - Track success in teaching
 - Move beyond data for accountability only
 - Use data to problem-solve
 - Track mastery of goals (overall)
 - Help develop goals in socially significant areas
 - Help shape complex social behaviors

What are some issues that behavior analysts can assess?

- Generalization of skills
 - Ensure that success is determined by transfer to natural environment
 - Help teams assess for generalization in meaningful ways
 - Highlight how certain teaching methods will enhance generalization

Ongoing Evaluation

Should be based on objective data
Should be comprehensive in focus
Should be linked to

- action/responsiveness/alterations in instruction
- modifications in supports

What makes inclusion successful?

What criteria do we utilize?

How can we make it objective?

- what percentage of goals were achieved?
- was any reduction in assistance achieved?

Ongoing Evaluation

- How can I assess the student's level of success?
 - Consider educational goals.
 - Consider challenging behaviors.
 - Consider consumer satisfaction.
 - Consider integration with peers.

Teamwork: Challenges to Success of Inclusion

Major Points for Effective Collaboration

- ROLE DEFINITION
- Regular meetings to facilitate communication
 - Include all important team members
 - Include paraprofessionals
- Experts to guide target selection, data collection, data analysis
- Respect for different disciplines and alternative points of view

What can behavior analysis contribute to team collaboration?

- Operational definitions of goals
- Ways to collect data and track progress
- Data analysis
- Data-based decision making
- Generalization assessment
- Design of procedures to evaluate treatments or approaches

Evidence-based Practice

- We want to use procedures that have been verified to be effective
- If such validation is not available, and the assessment of the intervention is reasonable, we can collect data to evaluate the impact for THIS LEARNER
 - To facilitate data-based decision making

In Summary

- ABA is needed in inclusive settings to create efficient and effective interventions for individuals with autism
- The science of ABA can help: create effective teaching strategies, collect meaningful data, to objectively evaluate progress, and to train staff in effective methods.