Peers and Play: Supporting Social Interactions of Students with Autism

Ann M. Sam, Ph.D.
Ann.Sam@unc.edu

Jessica Dykstra Steinbrenner, Ph.D.
Jessica.dykstra@unc.edu

Autism Spectrum Disorders (DSM-5, 2013)

- Persistent deficits in social communication and social interaction across contexts
- Restrictive, repetitive patterns of behavior, interests, or activities
  - Stereotyped or repetitive motor movements
  - Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal/nonverbal behavior
- Highly restricted, fixated interests that are abnormal in intensity or focus
- Hyper- or hypo-reactivity to sensory input or unusual interests
- Symptoms must be present in early childhood
- Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning

Recent Statistics (CDC, 2019)

- 1 in 59 children
- 4 boys for every girl with ASD
- Range of intellectual abilities

- 69%
- 31%
Definitions and Examples of Engagement

- Developmentally appropriate participation in activities
  - Active Engagement
  - Academic Engagement
  - Cognitive Engagement
  - Social Engagement

- Preschool
  - Listening to a book as it is read and interacting with the reader
  - Playing cars with a peer during free play

- Elementary
  - Asking a question during a class activity
  - Playing a game of tag at recess

What Is Linked To Engagement?

- Student Factors
  - Age and developmental level
  - Type of disability
  - Student interests

- Partner Factors
  - Interaction behaviors
  - Frequency of interaction

- Environmental Factors
  - Student groupings
  - Activity types
  - Instructional strategies

(Adamson et al., 2004, 2009, 2010; deKruif & McWillaims, 1999; Kamps et al., 1991; Marks, 2000; McDonnell et al., 2003; McWilliam et al., 2003)

What is social engagement?

- Participation with others
- Development of joint engagement
- Beyond joint engagement

- Non/pasive engagement
  - Supported joint
  - Coordinated joint

- Single engagement
  - Person

- Joint engagement
  - Object
Impact of Social Engagement - Childhood

- In school settings
  - Intervention outcomes
  - Academic success
  - Friendships and peer relationships

- On the child
  - Language skills
  - Problem solving in social situations
  - Self-esteem and self-confidence
  - Flexibility and adaptability

Preschool Years: Characteristics and Behaviors

- Characteristics and behaviors
  - Wide range of receptive and expressive language, but likely delayed
  - Fewer back and forth interactions
  - May have emerging requesting skills, but likely limited joint attention skills
  - Limited range of play skills (often perseverative and lower levels of play than expected)
  - Stereotyped behaviors are no longer developmentally appropriate

- Contextual considerations
  - Entering school programs – may be first time in group and/or more structured setting
  - Communication partners are family, teachers, and peers
  - May still have a "developmental disability" label for educational purposes

Autism Program Environment Rating Scale

What is it?
- Two versions: PE and MHS
- APERS-PE: 59 items across 10 domains/subdomains
- Yields information that identifies program strengths and areas in need of improvement; measure of change in program quality
APERS Data Collection

➢ Observation – variety of settings at school
➢ Interviews – parents, teachers/team members, administration
➢ Record Review – 2-3 target students, different program types and ages

Current state of Program Quality in U.S.

n = 40 Elementary School Programs

Areas of Need, Based on APERS

❑ Social
❑ Communication
❑ Independence
❑ Behavior
Address Using Evidence-based Practices

Focused interventions that:
✓ Produce specific behavioral and developmental outcomes for a child
✓ Have been demonstrated as effective in applied research literature
✓ Can be successfully implemented in educational settings

Coming in 2019: updated EBPs based on most recent literature (National Clearinghouse on Autism Evidence and Practice – NCAEP)


EBPs Most Relevant for Supporting Social Engagement in Schools

- Antecedent-Based Interventions
- Cognitive Behavioral Intervention
- Differential Reinforcement
- Discrete Trial Training
- Extinction
- Functional Behavior Assessment
- Functional Communication Training
- Modeling
- Naturalistic Interventions
- Parent-implemented intervention
- Peer-Mediated Instruction/Intervention
- Picture Exchange Communication System
- Pivotal Response Training

Reinforcement: The Basics

- Purpose
  ✓ Provide a response to increase (or decrease) the likelihood of a behavior
- Implementation
  ✓ Deliver the reinforcer when a student uses a target skill using determined frequency and thinning as appropriate
- Examples/Types
  ✓ Positive reinforcement
  ✓ Token economy
  ✓ Negative reinforcement
Reinforcement for Social Engagement

- Classroom-wide reinforcement ✓
  - Encourage social engagement through a group reinforcement system
- Use reinforcement intervals ✓
  - Use apps for reinforcement or exercise to cue you to provide reinforcement for social engagement
- Have peers provide reinforcement ✓
  - Train peers to provide praise or even more tangible reinforcers (Peer-mediated Instruction and Intervention)

Reinforcement Examples

Prompting: The Basics

- Purpose ✓
  - Provide necessary help to a student to successfully perform a skill
- Implementation ✓
  - Gain attention, deliver stimulus, provide cue, wait for response, respond to attempts
- Example/Types ✓
  - Least to most prompting
  - Graduated guidance
  - Simultaneous prompting
Prompting for Social Engagement

- Carefully consider prompt hierarchies for social engagement
  - Use visual + verbal over just verbal to allow for easy fading
- Teach prompts to peers
  - Have supports to help peers provide prompts during interactions
- Plan ways to prompt social engagement in naturally occurring situations
  - Consider lunch, before and after school or class, recess, group activities and others.

Task Analysis: The Basics

- Purpose
  - Break down a complex skill or behavior to facilitate learning or completion
- Implementation
  - Break skill into small, discrete steps
  - Create supports (often visual)
  - Examples/Plans
  - Forward chaining
  - Backward chaining
  - Total task

Task Analysis for Social Engagement

- Breakdown steps for repeated peer activities
  - Create posters or booklets to support engagement during group activities
  - Create routines in play activities
  - Establish steps for play activities to help support peers playing together
  - Use technology for task analysis
  - Use apps on smartphones or Google docs
Task Analysis Examples

Visual Supports: The Basics

- Purpose
  ✓ Provide a concrete, visual support in order to help skill development or performance
- Implementation
  ✓ Determine type and form of visual support
  ✓ Create visual support
  ✓ Teach the use of the visual support
- Types
  ✓ Boundaries, schedules, cues
- Forms
  ✓ Pictures, written, objects, environmental arrangement, visual boundaries, schedules, labels, organizational systems, scripts, etc.

Visual Supports for Social Engagement

- Supports for engaging in conversation
  ✓ Create visual cues for supporting various conversation skills
  ✓ Reminders to interact with peers
  ✓ Place visual cues in key locations to encourage peer interactions
- Visual cues for joint activities
  ✓ Use visuals that support social skills or behaviors or interaction
Video Modeling: The Basics

Purpose
Use a video recording to provide a visual model of a target skill or behavior (for teaching or for priming)

Implementation
Create VM, arrange environment, show video, use activity to elicit skill

Examples/Types
- Basic
- Self-modeling
- Point-of-view modeling
- Video prompting

Types of Video Modeling

<table>
<thead>
<tr>
<th>Type of VM</th>
<th>Role of student</th>
<th>Role of model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Views video model by model</td>
<td>Serves as model performing the target skill</td>
</tr>
<tr>
<td>Self-modeling</td>
<td>Learner is recorded displaying skill</td>
<td>Learner is the model</td>
</tr>
<tr>
<td>Point-of-view</td>
<td>Video of skill performed, then demonstrated skill</td>
<td>Serves as point of view model for the skill</td>
</tr>
<tr>
<td>Video prompting</td>
<td>Learner attempts each step before viewing other steps</td>
<td>Serves as model for recording</td>
</tr>
</tbody>
</table>
Video Modeling

Plan
- Select type of VM
- Break down task
- Create VM
- Introduce viewing equipment

Implement
- Arrange environment
- Choose time to show video
- Share video
- Implement activity to elicit behavior

Monitor
- Collect and analyze data for target behavior
- Fade video model
- Determine next steps

Resources
- AFIRM Modules
  - https://afirm.fpg.unc.edu/afirm-modules

- AFIRM for Para Coming soon!

Autism Focused Intervention Resources & Modules - AFIRM
- E-learning modules for 27 EBPs
  - http://afirm.fpg.unc.edu/

- Target audience:
  - Special educators
  - General education teachers
  - Related service personnel
  - Early interventionists

- Planning, using, monitoring EBPs