ACCESS TO PLAY:

DETERMINING SUPPORTS AND BARRIERS TO INCREASING ENGAGEMENT FOR CHILDREN WITH COMPLEX COMMUNICATION NEEDS

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*Play provides a **context** for children to practice newly acquired skills and to function on their developing capacities, to take on new social roles, attempt novel or challenging tasks, and solve complex problems that they would not or (could not) do otherwise.*

National Association for the Education of Young Children (2006)

DEFINING PLAY

- Play has broadly been divided into categories of object play, pretend play, and physical play.
- Play has broadly been described as being made up of **pretending**, positive affect, and flexibility (Smith & Vollstedt, 1985)

SOCIAL LEARNING AND LEARNING TO BE SOCIAL

Playful learning has led to benefits in…

- Language
- Literacy
- Spatial concepts
- Numeracy
- Attention
- and Symbolic representation (Hirsch-Pasek, Golinkoff, Berk, & Singer, 2009).

Through play…

- Children learn social competence and confidence engaging with their peers.
- Socially-oriented skills are advanced and then transferred into other contexts (Vgotsky, 1978)
- Learn to follow directions, pay attention, and solve disputes (Diamond, Barnett, Thomas, & Munro, 2007)

*Social competence in areas including regulation and communication is observed to be a critical component of academic learning (Russell & Lacoste-Caputo, 2006).

JOINT ATTENTION

- The social developmental outcomes derived from play are particularly important for individuals with autism because of their difficulties with social-communication (APA, 2013).
- *For children with autism, access to the play context requires access to joint attention.*
- Joint attention refers to the ability of an individual to coordinate their attention between another individual and an event/object (Bakeman & Adamson, 1984).
- Joint engagement involves time spent with both parties being actively involved and coordinating attention to both the other person and the object of interest (Adamson, Bakeman, & Deckner, 2004).
- Joint attention is described as the first demonstration of recognizing intentionality between individuals (Tomasello & Rakoczy, 2003).
- Deficits in joint attention have been documented throughout the literature on children with autism (Wetherby & Prutting, 1984; Mundy & Willoughby, 1996).

JOINT ATTENTION AND PLAY

- Joint attention has been determined to be a significant predictor of both spontaneous and structured performance in pretend play (Rutherford, Young, Hepburn, & Rogers, 2007).
- Joint attention is suggested as the foundational skill that contributes to being able to engage in playful pretense with others, as opposed to their ability to pretend (Hobson, Hobson, Malik, Bargiota, & Calo, 2013).

CURRENT INTERVENTIONS

- Current joint attention interventions broadly fall into categories of milieu teaching, developmental programs, and intensive behavioral program environments (Jones & Carr, 2004).
- Murza et al., (2016) found significant treatment effects for current interventions, however the outcomes measured were all based on structured assessments and/or video-taped observations between the child and an adult.

What's missing?

- Looking at joint attention between children and peers
- Looking at communicative, language, social outcomes with these interventions

IMPLICATIONS FOR CLINICAL AND RESEARCH PRACTICE

With the viewpoint of play as a context, this shifts the emphasis away from teaching specific play behaviors. Rather, it looks at ways to increase **ACCESS** to play in such a way that playful learning and social competence are supported.

Beyond merely placing children in proximity or teaching them behaviors to appear similarly to their peers, accessibility hinges on being able to participate in authentic social engagement and recognize the shared nature of these interactions (Rutherford, Young, Hepburn, & Rogers, 2007).

Determining accessibility requires consideration of the

- Person
- Task
- Environment

PERSON

- Motivation
  - Personal interests (toys, activities, etc…)
- Motor
- Sensory-perceptual
- Cognition
- Attention

Communication

- **Decreased joint attention**
  - **Responses/bids** (Wetherby & Prutting, 1984; Mundy & Willoughby, 1996)
- **Communication largely consists of expressing wants and needs**
- **Difficulties with other communicative functions**
  - **Information transfer**
  - **Social closeness**

(Wetherby, 1986)

ENVIRONMENT

- There is an increasing emphasis of including children with disabilities into mainstream classrooms (including daycares, preschools)
- Must consider the following factors:
  - Classroom composition (inclusion, age ranges)
  - Teacher/staff practices
  - Peer modeling programs
    - Status differential
  - Toys, Centers, Activities

TASK

- Skills and attitudes of both children involved
  - Previous positive interactions
  - Consistent partners
- Motivating nature of the activity
- Social demands
  - **Joint attention (both responses and initiations)**
  - Communication

FUTURE PROJECT

- Naturalistic observational study of preschool children
  - Children age 3-5
  - Possible locations: Early Learning Center, Headstart classrooms, Emerald Academy
- This project is designed to assess the manifestation of joint attention between preschool children in the context of play.
- Questions:
  - What social-communication is typically used for establishing joint attention?
    - How are invitations made? Accepted?
  - What are the social-communication patterns observed during joint engagement?

JOINT ATTENTION (ADAPTED FROM ROOS ET AL. 2008)

Response to joint attention during play:

- Turning head of shifting gaze in response to peer verbal or gestural attention directing cue

Initiation of joint attention during play:

- Looking to peer while touching, moving, or manipulating an object
- Alternating eye gaze between an object and the peer
- Using distal point to an object or event in the environment
- Showing an object
- Using proximal point and eye contact
- Using non-word vocalization and eye contact
- Using positive affect and eye contact
- **Using directive verbalization**
  - **Look for patterns in these verbalizations**

JOINT ENGAGEMENT

Joint engagement: Subject and friend are both actively involved in object/event

- Develop coding scheme
  - Communicative functions expressed
  - References to object/event, partner, other
  - Vocabulary
  - Ideas?

WHAT CAN BE LEARNED FROM THIS OBSERVATION

- Understand the task demands, specifically communication demands, of how joint attention is established and maintained in this context.
  - To assess what aspects of the play context can be manipulated to maximize personal strengths, reduce task demands, and enhance the environment.
- Looking for patterns within these interactions
  - What is constant? What changes?
- Additional questions
  - What is the role of adult and/or partner scaffolding?
  - What are the enticing objects/events?

POTENTIAL SUPPORTS

- Access to a wider variety of communicative functions
  - Visual scene displays
    - Visual of people and shared activity
    - Reduce cognitive and linguistic demands of locating vocabulary (Light & Drager, 2004, Light & Drager, 2007)
    - Reduced working memory demand (Light & McNaughton, 2012)
  - Just-in-time programming
    - User-friendly
    - Typically-developing toddlers can participate in this activity, to varying extents (Holyfield, Dtager, Light, & Caron, 2017)
- Environmental adaptations
  - Activities of shared interest between children
  - Repeated exposure, opportunities with the same children
- Adult scaffolding
  - Natural peer supports

FUTURE DIRECTIONS

- Implications for vocabulary selection
  - Representation of appropriate communicative functions, topics
  - Access to the necessary communication to initiate bids for joint attention (and respond)
- System design
  - Systems that enhance, not detract, from the joint activity
  - Support partner engagement
  - Augmented reality?
- **Intervention approaches**
  - Potential for virtual reality interventions to build this skill in a less demanding environment (Parsons & Mitchell, 2002; Wainer & Ingersoll, 2011)
    - Promote more flexible social thinking and exploration

RESEARCH DISCUSSION

- Represents a shift in thinking about the targets of intervention and accessibility
  - Shifting from an emphasis on behaviors to the target outcomes
    - When specifically thinking about the population of autism, how can we reduce the social task demand/expectations, but still ensure active participation?
  - Additional considerations for 'purposeful' accessibility

RESEARCH DISCUSSION

- Play is an exploratory context
  - Considerations must be made to the level and form of partner training that is provided
  - Specifically with peers, it is vital to maintain equal status (Newcomb & Bagwell, 1995)
  - Directing vs. scaffolding

RESEARCH DISCUSSION

- Play is a universal context, but it is highly subjected to cultural influences.
  - How do we establish research that captures supports and barriers presented across a variety of cultural influences?
    - This project attempts to look across SES

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