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How to Use Play as a Teaching Tool for Children with ASD

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It's all in a day's play: How to use play as a teaching tool for children with ASD

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According to the most recent statistics from the World Health Organization in 2013, worldwide, autism spectrum disorder (ASD) affects 1 in every 160 children. However, many feel this is a conservative estimate, as recent studies have demonstrated considerable discrepancy in reported prevalence, and not all countries or regions of the world have reported. In particular, many countries experiencing poverty have yet to report incidence of ASD (World Health Organization, 2013).

Comparatively, in 2014 the United States reports 1 in every 68 children have an ASD, which is 1 in 42 boys and 1 in 189 girls (Centers for Disease Control and Prevention [CDC], 2014). This figure, which is the most recent available, represents the number of children, aged 8, across 11 states in the United States (Alabama, Arizona, Arkansas, Colorado, Georgia, Maryland, Missouri, New Jersey, North Carolina, Utah, and Wisconsin) with a diagnosed ASD as of 2010. The children in these states were felt to be representative of the prevalence across the United States, in general. The incidence in the United States is rapidly rising, with no apparent deceleration in sight (CDC, 2014).

Although there are some subjective measures used when diagnosing ASD, often the criteria found in the Diagnostic and Statistical Manual (DSM) is used to determine the presence or absence of ASD. The DSM categorizes an ASD into three levels, ranging from one to three. A child diagnosed with Level 1 ASD requires some support; however, a child diagnosed with Level III ASD would need very substantial support. The child must present with characteristics of ASD at an early age, generally before 36 months, and these delays cannot be attributable to any other known cause. ASD is characterized by challenges in social interaction with others; deficits in purposeful communication, both receptive and expressive; odd or atypical behaviors that are highly routinized; stereotypy; and/or highly restricted interests, accompanied by strong preferences and aversions (DSM, 2013).

Simply put, an ASD can impact any child by hindering his ability to communicate, interact, process information around him, and play. ASD is a lifelong condition, and currently there is no cure. By all accounts, even by the most conservative of standards, the need to support and nurture children with ASD in all settings is fundamental and essential for this generation of young children to thrive. Accordingly, the ability to provide appropriate activities to foster

growth across all developmental domains is a critical need impacting children everywhere. Play is a teaching vehicle that is universal and provides the opportunity for children to learn in an engaging and meaningful way.

Play

Children learn through play. Play provides children with opportunities to develop across each early childhood domain: physical, adaptive, communicative, social-emotional, and cognitive. Children develop their first understandings of the world around them through play, as it is the occupation of children (Sheridan, Harding, & Meldon-Smith, 2001). Children with typical development tend to engage in specific types or patterns of play; the California Institute of Play has identified seven categories of play.

These seven patterns or types of play can be characterized by their differing attributes. Attunement play, for example, is how a newborn baby and mother first connect. Body play is the means by which an infant or young child discovers his own self. This could include vocal play or wiggling his toes. Object play is when a child realizes that everyday objects can be used as playthings, such as a spoon or cooking vessel. Social play involves the child engaging with another, adult or child, in an interactive and reciprocal way. Pretend play allows a child to use his imagination to create scenarios rich in fantasy and engage in role playing to assume the identity of another. Storytelling play would involve a child retelling a story in his own words or combining language and stories in novel ways. Lastly, creative play involves a child using his imagination to bring play to the next level by improvising or finding new ways to use existing toys to further enjoyment (National Institute of Play, 2014). However, we know that children with ASD have a difficult time demonstrating most of these types of play.

Play and the Child with ASD

Play comes in many shapes and forms, as discussed above. However, children with ASD tend to prefer certain and distinct types of play and frequently engage in that type of play. Examples of preferred types of play for children with ASD include play which is repetitious, sensory-based, and includes a cause/effect element (Doody & Mertz, 2013). In a study involving children with and without ASD, the researchers found that children with ASD, when left to their

own devices and given the ability to freely chose play opportunities, overwhelmingly gravitated towards play that fell into one of these three categories.

Preferred Play

Repetitious play involves the same type of play action occurring over and over again, with little variety or diversity. Examples of repetitious play include opening and closing a cabinet door multiple times, filling a bucket with sand to only immediately dump it out, or listening to only the same bars of a song while ignoring the rest. This type of play is often referred to as 'preservative" play and refers to the child's insistence to 'persevere" or engage in the same type of repetitive action. Repetition breeds familiarity and the child with ASD prefers play which is predictable and stable.

Sensory-based play is play in which a child can employ one or more senses to provide stimulation and feedback. We know that children with ASD often prefer atypical or abnormal sensory activities, such as mouthing or smelling inedible objects, flicking their fingers in front of their eyes, or demonstrating an affinity for certain sounds or tones (Leekam, Nieto, Libby, Wing, & Gould, 2007). This type of play can appear awkward and uninteresting to others, as we are typically not accustomed to seeing children engage in this type of play. A child with typical development may enjoy spinning a top, for example, but would likely engage in this type of play for a limited amount of time, whereas a child with ASD may become fixated on sensory-based play and remain engaged for inordinate lengths of time.

Causal play is also preferred by children with ASD. Cause and effect toys are characterized by one motion or action directly causing a predictable and distinct reaction or response. An example of a cause and effect toy would be a Jack-in-the-Box. After the handle is cranked for a pre-determined amount of time, a clown or other type of character pops up suddenly from the box. The "popping up" is directly contingent upon the turning of the handle. Children with ASD often prefer cause and effect types of play, controlling a toy's response by behaving in a certain way (Holmes & Willoughby, 2005).

Non-Preferred Types of Play

Previous research demonstrates that children with ASD rarely engage in symbolic or pretend play (Williams, Vasudevi, & Costall, 2001). This type of play might involve using an object or toy in a manner other than its intended use. An example of engaging in symbolic play would be to feed a toy doll with a banana, while the child pretends it is a baby bottle. Role playing is a classic example of pretend play, wherein the child pretends to be someone that he is not: to wit, a firefighter, teacher, or famous athlete. It is frequently a struggle for children with ASD to engage in this type of play, even when explicitly taught to do so. One reason for this difficulty may be the failure to develop a Theory of Mind mechanism, wherein a child is able to put himself in the mental shoes of another. Children with ASD acquire the Theory of Mind mechanism much later in life, if at all, than do children with typical development (Baron-Cohen, 1989).

The absence of pretend play is a well-documented characteristic of children with ASD. It is so well documented that a universal screening instrument, the Modified Checklist for Autism in Toddlers (M-CHAT) includes a question regarding the ability to or interest in engaging in pretend play as one of its screening items (Verbalis, et al., 2008). Children with ASD demonstrate markedly different play preferences and characteristics. Often, the inability to engage in pretend play is one of the earliest indicators of an ASD in a very young toddler.

How to Encourage Play

What should you do if a child does not appear to engage in novel play activities? One suggestion would be to systematically investigate what types of toys a child likes by administering a preference assessment. Preference assessments allow adults to trial novel toys with a child and record his reactions, which yields valuable information as to preference (Tullis, et al., 2011). A child with ASD may show an interest in a toy that he has never been exposed to previously, subsequently adding a new play skill to his repertoire.

Another suggestion would be to employ the Premack Principle. The Premack Principle is a well-known and highly-regarded strategy often used for children with ASD. The premise behind the Premack Principle is to introduce a less-preferred object, activity, or task, immediately followed by a highly-preferred task or item. The highly-preferred item serves as an automatic reinforcer for the child with ASD, rewarding him for his efforts and time spent with

the lessor preferred object (Deris, & DiCarlo, 2013). The Premack Principle is often referred to as "Grandma's Rule" – to wit, once you eat your green beans, you can have your ice cream. Employing this strategy to introduce a new toy would encourage new categories of play for a child with ASD.

Another strategy would be to utilize an existing interest that a child had in a toy and embed that in a learning activity. Prior research has demonstrated that children with ASD acquire new play skills when they are embedded into familiar routines in a highly-structured way (Jung & Sainato, 2013). This strategy allows us to use a child's familiarity within a well-established routine to our advantage while developing novel play skills. For example, if a child enjoys playing outside after lunch, that would be an ideal time and setting to incorporate a new play activity, while the child is comfortable and at-ease.

Many children with ASD have profound and narrow interests, further inhibiting their ability to engage in novel play. Again, this could be turned into an advantage when developing new play skills. If a child has a pre-occupation with a television show, cartoon, game, or character, this interest can be used as reinforcement for engaging in a new activity. This interest can also be used as a learning tool (Baker, 2000). For example, if a child has a pre-occupation with Thomas the Tank, this interest could be parlayed into other presentations of play, such as Thomas dominoes or card games. In this way, a new genre of play could be introduced to a child with ASD but would garner his attention because of his already-established intense interest in the character.

Lastly, it is important to determine *how* a child prefers to play. One strategy to employ is referred to as "OWL" – observe, wait, and listen (Manolson, & Hanen Centre, 1992). By sitting back and observing the child with ASD at play, the adult has the opportunity to assess a child's play preferences and determine how best to proceed in introducing a novel toy. This method of gathering information can be time-consuming but is an effective means to employ when selecting toys or activities to meet the present abilities of the child.

Children with ASD, like all children, learn through their play experiences. However, these play experiences may appear more rote or repetitive in nature. It is the charge of adults (teachers, professionals, and parents) to encourage and enable children with ASD to continue to

develop new play skills and enhance learning across all developmental domains. In this way, play is not only an enjoyable occupation in which young children can engage, but also a meaningful and valuable learning opportunity.

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