



## Classroom Features Influence Interaction in Children with Autism

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I used to visit a young boy with autism at his daycare and provide consultation to his Early Childhood Educators (ECEs). His ECEs really wanted to help him engage with his peers. As he loved fire trucks, they had incorporated a fireman costume and fire trucks into the dramatic centre. They tried pairing him up with other little boys who liked fire trucks, hoping that the fire truck theme would spark his interest in playing with a peer. While he enjoyed playing with the items, he didn't interact with his peers. His teachers were puzzled by this, as they had included his interests and set up situations with very small groups of children. Even when an ECE joined the group and played with them or coached them from the sidelines, this little boy interacted very little.

While these ECEs seemed to be on the right track, there are other factors that needed consideration. While they had thought about what the little boy liked to play with, who he might like to play with, and how to coach him, they hadn't considered where or when he tended to interact with his peers. A new study in the *Journal of Early Intervention* by Reszka, Odom and Hume (2012) looks at where and when peer interaction happens by examining the relationship between classroom activities and routines and the social engagement of young children with autism.

### The Challenge of Peer Interaction for Children with Autism

The value of peer interaction cannot be underestimated. The chapter regarding peer interaction in the *Learning Language and Loving It™* guidebook (Weitzman & Greenberg, 2002) begins by highlighting the many skills children acquire by engaging with their peers:

“Through peer interaction, children develop the ability to see things from another person’s point of view. They learn to make compromises, to resolve conflicts, and to share, collaborate, and cooperate with others. They also learn how to negotiate and assert themselves...in order to become well-adjusted human beings, children need to interact with other children” (p. 185).

Children with autism, however, are less likely to initiate social exchanges or respond to others’ initiations. For this reason, their ability to acquire the skills above is jeopardized, and they may “be at an increased risk of social isolation and rejection by their peers” (Reszka *et al.*, 2012, p.40). Furthermore, Reszka *et al* (2012) explain that “what drives children who are typically developing to interact socially is often different from what motivates children with ASD” (p. 54). This may pose a challenge to parents, clinicians, and ECEs who seek motivating contexts for encouraging peer play in young children with autism.

## Typically-Developing Children in the Preschool Classroom

Studies examining the social engagement of typically-developing children in preschool classrooms have revealed that children interact with peers:

- the most during free play and when participating in sociodramatic or pretend play
  - more frequently when teachers are not involved in the interaction
  - more during child-initiated activities (vs teacher-initiated)
  - the least during structured activities like meals, or when there is a higher adult-to-child ratio
- (Reszka et al, 2012)

These findings are reflected in some of the *Learning Language and Loving It* Program strategies, as ECEs are encouraged to follow the children’s lead, promote pretend and sociodramatic play, and get themselves “out of the act” so that the children can interact with each other.

## Study: Peer interaction among children with autism in preschool classrooms

For children with autism, social interaction and play skills are areas of difficulty, making peer interaction particularly challenging. Reszka *et al* (2012) note that while many

intervention programs for young children with autism target the children's social skills in early childhood classrooms, little is known about how specific features of the classroom environment influence their social engagement.

In "Ecological Features of Preschools and the Social Engagement of Children with Autism", Reszka *et al* (2012) examine the relationship between the social engagement of 68 preschool children with autism (mean age 3.86 years) and four features of preschool classrooms:

- the activity area where the child is playing/working (e.g. book area, art area, large motor area)
- the behaviour in which the child is engaged (e.g. pretending, manipulating a toy, dancing, having a snack, etc)
- the group arrangement (small group of peers, large group of peers with an adult, etc)
- the initiator of the activity (e.g. child-initiated versus adult-initiated)

Each child was videotaped for 30 minutes in their classroom. To determine the extent of peer social engagement, the authors noted any social behavior (verbal or nonverbal) directed to or from a peer (in other words, social behavior with a peer, regardless of who initiated the interaction). They felt that because social behavior with peers is infrequent in children with autism, combining these two forms of peer interaction (initiating and responding) provided a broader picture of the overall social engagement of children with autism in the classroom (Reszka *et al.*, 2012).

The children in this study were enrolled in one of three types of classrooms:

- Learning Experiences: Alternative Programs for Preschoolers and Parents (LEAP)
- Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH)
- Business as Usual (BAU)

The classrooms were part of a larger study, "The ASD Treatment Comparison Study", comparing the efficacy of school-based treatment models (<http://projects.fpg.unc.edu/~asdtc/>). The first two types of classrooms (LEAP & TEACCH) were treatment models, and the "BAU" classroom served as a control condition. Comparative information about the classrooms was beyond the scope of the current study. Rather, the authors wanted to present a broad picture of the social engagement of children with autism across a variety of preschool environments (Reszka *et al.*, 2012). The classrooms varied in the total number of students, the number of typically developing children and children with other disabilities in the classroom, the length of the school day, and the number of staff. The influence of these factors was not analyzed in this study.

## Key Findings

Reszka *et al* (2012) looked for associations between the children's social behaviours and the contextual features of the classroom. In terms of overall social engagement, the children with autism:

- **spent approximately 1.8% of their time interacting with peers.** Other studies have shown that children with disabilities spend approximately 8% - 11% of their time engaging with peers, and that typically-developing children spend about 18% of their time engaging with peers.

They found that the children with autism engaged more frequently with peers:

- **in the "Books area" and while engaged in book-related activities** - books may offer a concrete means for initiating and sustaining social interaction (such as showing pictures or talking about the book topic).
- **in the "Food/Snack area" of the classroom** - this is in contrast to typically-developing children, who tend to engage less with peers during meals. Meal times are socially structured, and children sit in close proximity to their peers. These features may facilitate peer interaction among children with autism.
- **during large motor activities (e.g. swinging, riding bikes, pushing and pulling wagons, etc)** - as large motor activities are often a preferred activity for children with autism, this may have contributed to the increase in social interaction.
- **in small groups with one or two peers, or in large groups (three or more peers) when an adult was present** - the finding that the children with autism interacted in large groups when an adult was present is contrary to findings from other studies in which children with autism and other disabilities interacted more in small group settings. The authors suggest that by providing positive, responsive interactions, the teacher present in the large group likely facilitated interaction.
- **during child-initiated activities** - the authors recommend that "allowing children to choose their activities and providing opportunities for self-direction may be especially important in promoting the development of independence for children with disabilities and social interaction among children with disabilities and their peers" (p. 53).  
(Reszka et al, 2012)

## Implications of the Findings for Clinical Practice

These findings can influence our work with young children with autism in many ways:

- **Peer interaction is an important goal** – the children with autism in this study spent approximately 1.8% of their time engaging with peers. This is much less often than either typically-developing children (18%) or children with other disabilities engage with peers (8-11%). Therefore, peer interaction should be targeted when working with young children with autism.
- **Helping ECEs coach peer play** - Reszka *et al* (2012) explain that the low incidence of peer interaction in their study confirms that "only creating activity areas and setting up materials is not sufficient to promote social interactions" and that "adults may need to provide additional supports for children's play and

interactions” (p.54). This idea is reflected in the TalkAbility™ program, which suggests that setting up the play is only one component of promoting peer interaction. While developed for parents, some of the play coaching strategies from the *TalkAbility* program could be adapted for use by ECEs in the classroom. For example, knowing when to “step out and stand by” (when the children are playing well together), and ways to “step in” when the children need help (by Interpreting, using Cues, or Joining in the Play) could help ECEs who are trying to promote peer interaction with children with autism (Sussman, 2006).

- **Targeting peer interaction and pretend play during the same activity is not ideal** - another important goal for young children with autism is pretend play, and pretending is often used as a context for working on peer interaction. However, targeting social engagement during a pretend play context may involve too many goals at once for a child with autism. Reszka *et al's* study showed that children with autism interacted more during books, meals, and large motor activities, so these are ideal times to target peer interaction.
- **Following the child's lead is key** – in the above study, children with autism were more likely to engage with their peers during child-initiated activities. Therefore, it is important to encourage teachers and parents to allow the child to choose the activity and take the lead during the activity when trying to encourage peer play.
- **Raise teachers' awareness of activities that promote social interaction** - ECEs might assume that the pretend play area or sociodramatic area are perfect places to encourage social engagement as these are common areas for cooperative, social play among typically-developing children (Reszka *et al.*, 2012). However, this type of play can be challenging for children with autism and can, therefore, discourage social engagement. Some daycares and preschools discourage conversation at meal times or in the book area and instead promote a calm, structured atmosphere during these activities. However, Reska *et al's* study demonstrates the value in promoting interaction at meal times and in the book centre for children with autism. Teachers can be encouraged to think about activities and areas that facilitate social interaction when they complete the observation guide in the *Learning Language and Loving It* guidebook (Weitzman & Greenberg, 2002, p. 218-219). The final question, “During which activities is the child most interactive with his peers?” can be highlighted and used to start a discussion about helpful contexts for peer play.
- **Helping parents plan playdates** - in the *More Than Words* and *TalkAbility* Programs, parents are encouraged to organize playdates for their child. They formulate a plan to help their child interact with a peer, and think about what toys and activities to include in the playdate. While the above study looked at the classroom environment, some of the ideas can be extrapolated to the home environment. Parents can be encouraged to consider including a snack, some books, and some large motor activities during the playdate. Parents may not automatically think of putting out some books at a playdate, as we typically don't think of a book as a social toy. But this may provide a concrete, visual way of starting a conversation for a child with autism, especially if the book is based on his interests. Letting the kids play in the backyard or planning a playdate at a neighbourhood park might encourage social interaction through large motor play.
- **Running social skills groups** - Clinicians who run social skills groups for young children with autism can incorporate some of the findings from this study into their intervention. While such groups tend to be quite structured, it is important to

let the children choose some of the activities and lead the way, as the children in this study were found to interact more with peers during child-initiated activities. Trying to incorporate snacks, books, and large motor activities into a social skills group also follows from the findings of this study. It can be difficult to include large motor activities in a smaller therapy room. When possible, holding a social skills group in a location that can allow for such play may provide more options for activities that foster peer interaction.

While thinking about what and who children with autism like to play with is important, Reszka *et al's* study shows that we must also consider when and where the children interact the most with their peers, and incorporate these observations into our intervention.

## References

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