Lab Overview

The MSU Autism Lab was founded in 2007 by Brooke Ingersoll, PhD, BCBA. Our lab is interested in studying social communication development in children with autism. In particular, we study how nonverbal skills such as imitation and joint attention, which usually are significantly impaired in children with autism, can affect (or are related to) the development of later emerging language or social impairments. We use this information to develop and evaluate more effective interventions for young children with autism. We are also interested in identifying child characteristics that can predict which children are likely to respond most favorably to different interventions.

Current Projects

Reciprocal Imitation Training

The largest study currently taking place at the lab, funded by Autism Speaks, is a study that looks at the effects of Reciprocal Imitation Training (RIT), a developmentally-based intervention that teaches imitation within a social-communicative context. Imitation is thought to play a key role in the development of language, pretend play, social interaction, and emotional exchange from infancy through adulthood. It has been found that early deficits in imitation in those with autism have been closely associated with later emerging deficits in language, pretend play, and joint attention.

Children participating in this study are randomly assigned to either
the treatment group or the control (community) group. Children in the treatment group come to the lab 3 times a week for 10 weeks to receive RIT. The control group continues whatever treatment they are receiving in the community, and comes to the lab for three testing periods. Each group will be offered training in RIT at the end of participation, as well as a detailed report covering assessment descriptions and scores of all three testing periods.

There have been 22 children that have completed, or are currently enrolled in this study. The goal is to have 50-60 children between the ages of 18 months to 4 years, with a diagnosis of autism, as participants in the RIT study.

If you are interested in learning more about this study, or how to become a participant, please call Nikki Bonter at 517-432-8031

**Sibling Reciprocal Imitation Training:** This study, funded by The Organization for Autism Research (OAR) and Autism Speaks, involves teaching an older sibling to implement Reciprocal Imitation Training (RIT) with their younger sibling with autism. It involves teaching

the sibling to use RIT simple techniques, including imitating the child with autism, using simplified language, modeling, reinforcement, and gentle physical prompting. Before beginning training, both children will participate in several weeks of “baseline,” in which the children will be filmed playing together to capture typical interaction patterns.

This will be followed by ten weeks of sibling training, in which the skills will be taught to the older sibling during two 30-minute sessions each week. Finally, one month after finishing training, we will visit your home one additional time for a follow-up session. All baseline and training sessions will be filmed and will take place in your home. We will also provide several sets of appropriate toys for the intervention, which you will be able to keep after the intervention is finished.

Currently, we are not recruiting for this study. If you should have any questions concerning this study, please call Katie Meyer at 517-432-8031.
Project ImPACT:
Parent training has been shown to be a cost effective intervention approach that leads to improved generalization and maintenance of child skills as well as decreased parent stress and depression.

Project ImPACT (Improving Parents as Communication Teachers) trains early intervention and early childhood special education (EI/ECSE) providers to teach parents of children with autism spectrum disorders (ASD) evidence-based strategies for improving their child’s social-communication skills during ongoing family routines.

Project ImPACT has been implemented in 11 ECSE sites in Oregon.

In Fall 2008, we started implementation in the Ottawa Area Intermediate School District with a grant from Michigan State University’s FACT (Families and Communities Together) Coalition. We are currently collecting data on parent and child outcomes in response to the Project ImPACT curriculum.

Naturalistic Language Interventions:
We will be starting a series of single subject design studies, comparing naturalistic language interventions, and their ability to target different language functions.

One approach that will be used is responsive interaction, a developmental social-pragmatic (DSP) approach, aimed at increasing the adult’s responsiveness to the child to include language modeling and expansions. Another approach used will be milieu teaching, a behavioral approach, aimed at promoting language use through direct prompting and reinforcement. In addition, a combination of responsive interaction and milieu teaching strategies will be used as a third approach to address the children’s language targets.

Participants will attend the lab 2 times a week and receive both interventions over the course of one to two months.

If you are interested in learning more about this study, or how to become a participant, please call Nikki Bonter at 517-432-8031.
Research Highlight

Our lab has recently completed a study examining the effect of object and gesture imitation training during RIT on language use in children with autism.

Our previous work found that children with autism who received either object or gesture imitation training made improvements in language skills.

The goal of this study was to see whether adding gesture imitation training improves the overall rate of appropriate language use in children with ASD who have already been participating in object imitation training.

Our results indicate that the majority of children began speaking at a higher rate once gesture imitation was introduced. In addition, the children were more likely to use verbal imitation during gesture than object imitation training sessions.

These results suggest that teaching gesture imitation with RIT is a particularly good approach for improving language skills in young children with ASD.

Family Tidbits:

In this section of our newsletter, we would like to highlight little family stories, or exciting “tidbits” concerning your child with autism. It can be anything that brings a smile to your face; an accomplishment; a new word; a happy day; a funny happening.

When you have something to share, please e-mail it to bonterni@msu.edu, and we will be sure to add it to one of our upcoming newsletters. Thank you!

Jacob, 4y

*Jacob has started doing up his own buttons on his pajama shirt!

*Jacob is now excited about dinosaurs. With his sister and dad, they run and pretend that they are being chased by dinosaurs.

*Jacob is trying to draw shapes and letters. He can also now recognize many shapes and some letters!

Way to go Jacob! Thanks for sharing!
Family Tidbits:

**Ryder, 4y**

*Ryder just turned 4y, and was VERY excited for his birthday. When people ask him how old he is, he says “I 4” and gestures with his hand showing four fingers!

*Ryder used the potty on his own recently, and was very proud of himself!

*Recently, when Ryder is happy he says so sweetly and sing-song like, “Smiles” or “I smiles.” When his birthday cake came out at his birthday party, he says “smiles” with a quivering excited voice. When mom comes home from work, Ryder runs up and hugs her, saying “Smiles, Mama, Smiles.” The picture below is at his birthday party, with his cute “smiles” look.

Way to go Ryder! Thanks for sharing!

**Dominic, 4y**

*Dominic watches people in his family use the phone, and recently when he watches them hang up, he says “Okay, Bye!”

*Recently, Dominic was found in the bathroom with dad’s electric shaver, pretending to shave like his dad does! Mom was relieved to report that the razor was not on!

Way to go Dominic! Good imitation! Thanks for sharing!

*Thank you to all families who shared with us this month. Please send in stories and tidbits as they come up. We LOVE to hear them, and will add them to our next newsletter!