Autism Lab

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Lab Overview

The MSU Autism Lab was founded in 2007 by Brooke Ingersoll, PhD. Our lab studies social communication development in children with autism spectrum disorders (ASD). In particular, we are interested in the development and evaluation of interventions to improve these skills. We are also interested in the effect of ASD on the family.

Special Topic: Technology and ASD

A growing body of research has begun to examine the use of technology to aid in the education and intervention for individuals with autism spectrum disorders (ASD). In particular, a number of studies have looked at the use of technology to promote social-communication skills in children and adolescents with ASD.

One program called TeachTown, uses a computerized program to teach students with disabilities a number of skills including receptive language, social understanding, self-help, attention, memory, auditory, and academic skills (Whalen, Liden, Ingersoll, Dallaire, & Liden, 2006). Another program, Mind Reading: The Interactive Guide to Emotions, uses a computerized program to teach individuals with ASD about basic and complex emotions and mental states (Baron-Cohen, Golan, Wheelwright, & Hill, 2004). The Junior Detective is an interactive computer game that was developed to help individuals with ASD learn emotion recognition and social problem solving (Beaumont & Sofronoff, 2008).

These are just some examples of the computer-based programs available to teach social communication skills to individuals with ASD. What an exciting
Our preliminary findings suggest technology can enhance evidence-based teaching practices for individuals with ASD but that technology alone does not lead to improvements in skill deficits associated with the disorder.

Research Highlights

**Josh Plavnick, Assistant Professor in Special Education, MSU**

Recent advances in technology have afforded many new tactics for teaching social, communicative, and educational behavior to individuals with autism spectrum disorders (ASDs). Whether it is an iPad, interactive computer software, virtual environment, or other tech fad, it seems many professionals serving students with ASD are becoming increasingly comfortable using technology to support their instruction. However, research demonstrating how best to use technology lags behind the proliferation of devices and “apps” currently promoted for individuals on the autism spectrum.

Our research looks at how, when, why, and for whom technology is beneficial. Current projects involve video modeling on an Apple iPad to teach social-communicative behavior and virtual environment training using the Microsoft Kinect to teach a variety of social and functional skills to individuals with ASD.

Current Projects

**Project ImPACT:** This project trains providers to teach parents of children with ASD evidence-based strategies for improving their child’s social-communication skills during on-going family routines.

We are working with a number of programs to implement the Project ImPACT curriculum with their families, including Ottawa Area ISD, Livingston ESA, Clinton County RESA, Clinton-Eaton-Ingham CMH, Ingham ISD, San Diego County BRIDGE Collaborative, and Kaiser Permanente Health System in Ottawa, CA.

In addition to implementation in the school environment, our lab has trained several families using this program by individual format. We also have used direct implementation of the Project ImPACT interventions to children in our lab, using trained research assistants as the intervention providers.

We are no longer recruiting participants for these studies, but please read ahead.
Current Projects

**Component Analysis of RIT:** We are beginning a new study to examine which treatment components of RIT, a developmentally-based imitation intervention, are most effective for teaching imitation to young children with autism. Participating children will receive 9 weeks of intervention targeting imitation skills.

**Word Learning in Children with ASD:** This project aims to understand strategies children with ASD use to learn new words. We are recruiting children with ASD and typically-developing children with a language age of 18-30 months. Children will be administered several standardized assessments and will participate in a brief word learning task over 2-3 visits.

ImPACT Online: Coming Soon!

We have begun the development of ImPACT Online, an internet-based distance learning program for parents of children with autism based on the Project ImPACT curriculum with funding from the US Department of Defense’s Autism Research Program. ImPACT Online will teach parents to promote their child’s social communication during play and daily routines using distance learning technology.

We plan to be recruiting families and communities for this study and look forward to being able to offer it to some the beginning of 2012.

*If you are interested in learning more about any project listed, or want to be on our waiting list for our intervention studies, please call Nikki Bonter at 517-432-8031 or email: bonterni@msu.edu*
Family Tidbits

In this section of our newsletter, we would like to highlight little family stories, or exciting “tidbits” concerning your child with ASD. 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!

Noah, 5y

Noah has been talking so much more lately! He is responding to more requests from others and even initiating communication with others! Mom says, “It’s the best ever!”

Way to go Noah! We are proud of you!

Jonah, 5y

Jonah is learning so many new skills! He has started waving goodbye spontaneously quite often, is imitating more and more, and is more often communicating with others through signs, vocalizations, and sometimes words! Way to go Jonah! We are proud of you!

Dominic, 6y

Dominic has started saying some new words! Trickier words, like “star, rainbow, arrow, mountain, noodle, lizard, and stork.” Mom reported that they thought it was really neat he knew those new words, and that he was also doing a yoga pose with each one! When she asked him where he learned the yoga poses, he answered, “gym!” Dominic’s dad has been doing yoga for over 30 years, so they are excited that maybe Dominic can do some yoga with dad.

Way to go Dominic! We are proud of you!

Jacob, 6y

Mom reports that Jacob now loves to read and his comprehension grows everyday! He also loves playing with his little sister, Maggie. After the Silver Bells Parade this year, the two of them were re-enacting the parade with pillows as floats and stuffed animals riding on them!

Way to go Jacob! We are proud of you!

*Thank you to all families who shared with us this month!