



## Randomized Comparison of a Peer-Mediated Social Intervention to 'Business as Usual' Social Programming for Elementary Students with Autism

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## Rationale for Peer-Mediated Interventions

- ❑ EB communication intervention approach (NRC, 2001)
- ❑ Empirically supported social intervention (Bass & Mulick, 2007; Chan et al., 2009)
- ❑ Peer Training Package – an 'Established Treatment' (National Standards Project, 2009)
- ❑ Lack of RC trials; comparison of interventions

## Common Intervention Components

- ❑ Direct instruction of social and communication skills
- ❑ Interventions dependent on peer involvement and training
- ❑ Combination of strategies – visual supports, prompts, written text and picture cues

## Research Questions

1. What are the effects of a Peer Network Intervention on the social communication, literacy, and adaptive functioning of children with autism in the early primary grades in comparison to a business as usual curriculum?
2. Do child characteristics and fidelity of intervention affect treatment outcomes?
3. How does the intervention impact generalization of social competencies in non-treatment settings with peers as social partners?

## Participants

- ❑ Entering Kindergarten, follow end of 1<sup>st</sup> grade
- ❑ Diagnosis of Autism Spectrum Disorder
  - CARS Experimental = 30.9
  - CARS Control = 29.9
- ❑ Verbal – 20 to 25 spontaneous words
- ❑ Minimum SS of 50 on PPVT-IV
  - Experimental = 83.6
  - Control = 82.3
- ❑ Opportunities for peer interactions

## Settings

- ❑ 3 times per week for 30 minutes
- ❑ Centers, SLP sessions, pull-out social groups
- ❑ Variety of social games and activities
- ❑ Two peers paired with one focus child
- ❑ Peers rotate each treatment session

## Peer Network Training

- ❑ School staff social training once a year – 2 hrs
- ❑ Teacher scripts and cues for target skills
- ❑ Model and coach 30-min on-site 2 times/week
  - Adult instruction 15 min, free play 10 min, reinforcement/feedback 5 min
  - Prompt through peers first
- ❑ Observe and give feedback – once weekly

## Pre- Mid- Post- Measures

- ❑ Standardized language tests
  - CELF-IV
  - PPVT-R
- ❑ Teacher report
  - Vineland
  - Social Communication Questionnaire
  - Social Interaction Teacher Impression Scale (6)
  - Teacher Satisfaction Survey

## Social Communication Measures

- ❑ Direct observational assessments
  - Speaker – focus child or peer (reciprocal)
  - Type of behavior – initiation, response, prompt
  - Communication form – REQ, COM, NIC, PLO, HLP, TT
  - Inappropriate social behaviors – BD, BV

\*Noldus Observer – Hand held PDA

## Treatment Sessions, Social Probes and Generalization Data

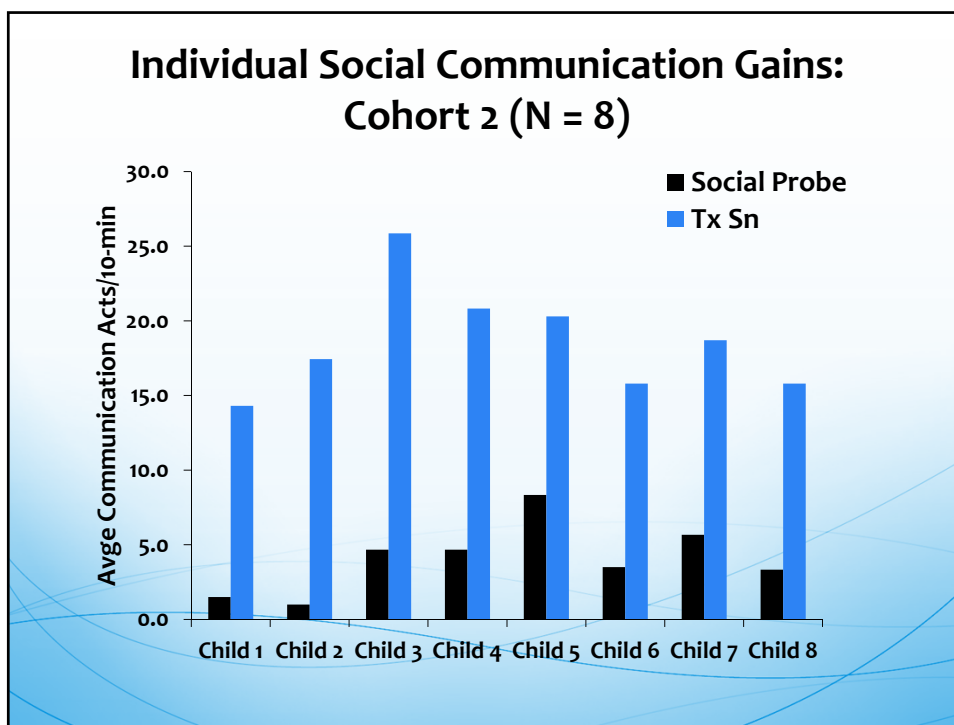
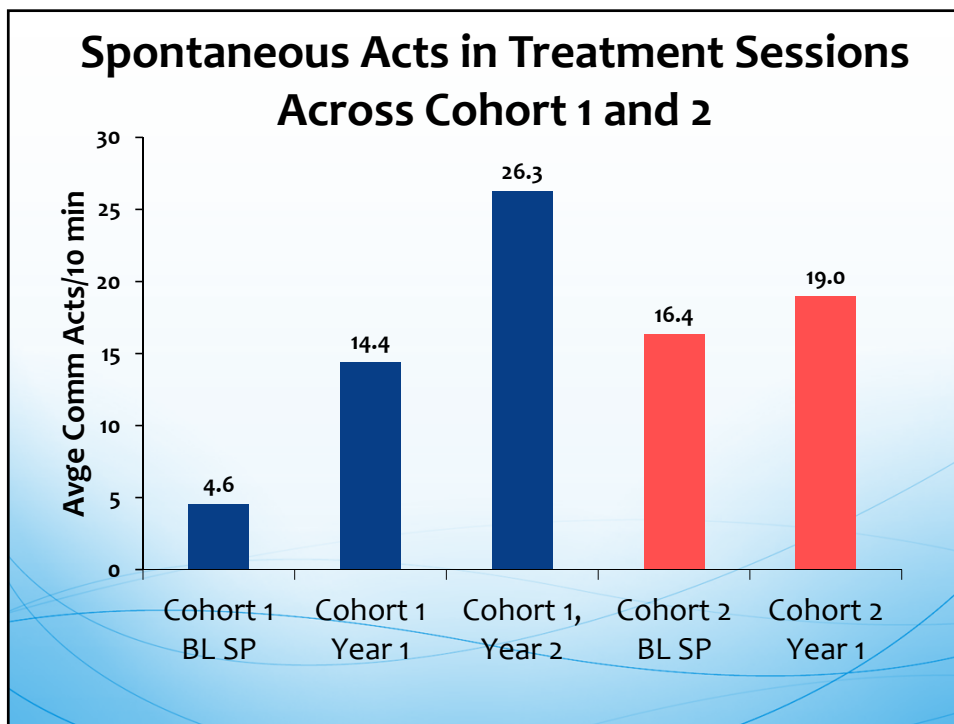
- ❑ Social treatment
  - 2 data points (6 to 8/year) for each skill targeted
- ❑ Social probes – choice of 3 games, no text cues or instruction
  - 6 times per year
- ❑ Generalization probes – recess, lunch, centers
  - 6 times per year

## Current Numbers

- ❑ KU and UW research sites
  - Treatment Group N = 31
  - Control Group N = 24
- ❑ Total # Baseline Social Probes
  - Treatment Group = 97
  - Control Group = 71
- ❑ Total # of Treatment Session Probes
  - Treatment Group = 203
  - Control Group = 182

## Preliminary Findings

- ❑ Experimental group communication rates increased by an average of 2 acts per minute
- ❑ Children participating for 2 years now showing greater gains compared to 1 year participation
- ❑ Highly verbal children at start – more qualitative changes in interactions; need to capture
- ❑ Recent addition of text cues during social probes resulting in higher communication



## Conclusions

- ❑ Peers provide natural reinforcement and feedback, multiple models of skills
- ❑ Increased repertoire of multiple social communication skills – 2 years of treatment
- ❑ Teachers report improvements in classroom social interactions
- ❑ Additional data analyses to examine group differences; child variables impact outcomes