

ADVANCES IN AUTISM INTERVENTION RESEARCH AT UCLA: From the lab to community



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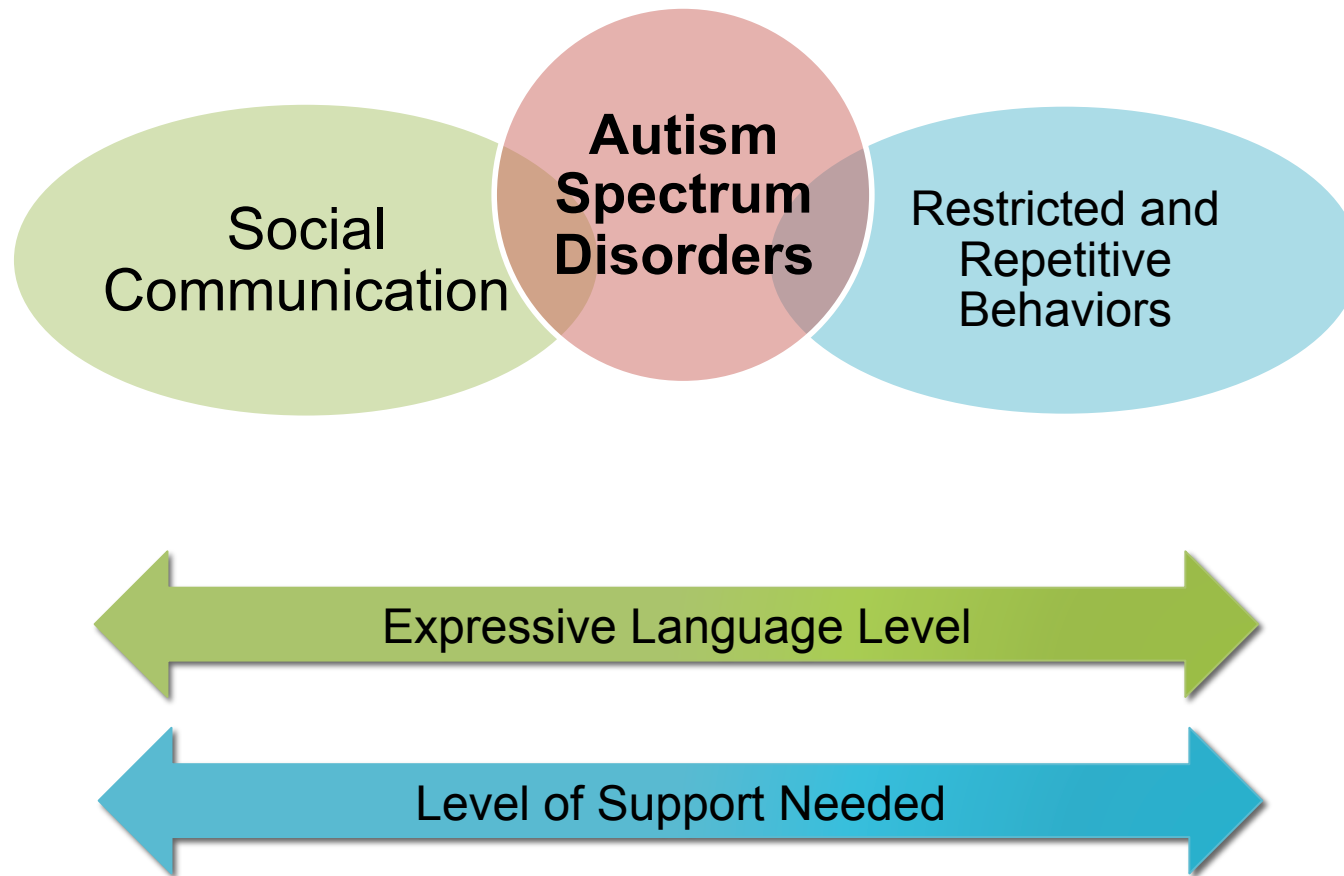
Overview

- What is Autism Spectrum Disorder (ASD)?
- UCLA and LAUSD partnered interventions
 - Remaking Recess
 - SMART Design
 - Focus on Girls with ASD
 - Community Partnered Participatory Research (CPPR)

What is Autism Spectrum Disorder?

- Autism Spectrum Disorder (ASD) is a disorder of brain development
- Onset in childhood; continues into adulthood
- Children and adults with ASD may communicate, interact, behave, and learn in ways that are different than most people
- Abilities of people with ASD can range from gifted to severely challenged

What is Autism Spectrum Disorder?



What Causes ASD?



- No one cause of autism has been identified
- Most cases involve a complex and variable combination of genetic risk and environmental factors that influence early brain development

How common is ASD?

- 1 in 68 children has an autism spectrum disorder (CDC, 2014)
- More common in boys than girls
- ASD occurs in all racial, ethnic, and social groups...BUT
 - African American and Latino children are more likely to be diagnosed later
 - Autism can be reliably diagnosed at two years of age (and sometimes younger)
 - The average age of diagnosis for African American and Latino children is **6-8 years**



Identification gaps

- This means that children from low resourced and underrepresented communities are not receiving *treatment* until much later (Thomas, Ellis, McLaurin, Daniels, & Morrissey, 2007; Mandell et al., 2009)
 - And when they do, these treatments tend to be lower quality and fewer hours
 - Need to understand this disparity and delay in diagnosis and treatment
- One way to address this issue is to partner with a large, ethnically and resource diverse school community
 - LAUSD has partnered with UCLA to address these issues since 2003

SCHOOL INTERVENTIONS FOR CHILDREN WITH ASD

Going to school with ASD



- Most children with ASD spend 5-6 hours per day in school
- Treatments for ASD are often incorporated in school
- Disconnect between 'therapy' and 'school'
- Goal is that all supports can be under one umbrella (e.g., school)
 - This means we need to focus on academic and *social* excellence for all children in the schools

ASD Intervention Models

- There are multiple evidence-based models of early intervention for autism
- Most programs are based on behavioral principles
- Therapists work on behaviors that are important to individual's functioning, such as:
 - Reducing behaviors such as tantrums, aggression, self-stimulation, perseverative behaviors
 - Increasing language, social skills, play skills, joint attention and emotional recognition

Academic supports in schools



But what about social supports?

Develop friendships at school



Working on peer relationships



REMAKING RECESS

Remaking Recess

Health Resources and Services Administration (HRSA) UA₃ MC 11055
Autism Intervention Research Network for Behavioral Health (AIR-B)

Autism Intervention Research
Network – Behavioral Health
(AIR-B)

Remaking Recess

By: Mark Kretzmann, Jill Locke & Connie Kasari
Illustrations by: Bere Muñiz and Graphikslava

Facilitating Peer Conversations

Conversations with Peers – Help children have conversations with each other (defined as four or more back and forth exchanges between children).

Conversation Starters – strategies that assist children in initiating and maintaining conversations and improving reciprocal interactions with peers. If the target child has difficulty engaging in conversations with peers during lunch, provide fun topics to talk about.

There are many ways to stimulate conversations between children at school. Remaking Recess focuses on using Social Menus, but other methods can also stimulate conversation between children (i.e. a Topic Box, Picture Prompts, or Interesting Objects).

- During times when children have opportunities to converse give them direct instructions to talk to each other. Example: “Now is the time for you to talk to each other.”
- Offer social menus to all children in the area. Do not single out the target child by approaching them only. Instead target the cluster of peers they are closest to by offering the social menus to the group.
- Give the menus to the children with the instructions “Here are some fun things for you and your friends to talk about”
- Move away so that the children aren’t tempted to talk to you instead of each other.
- Observe the children from a distance. If needed, move back and prompt them to ask each other the questions on the menu. Praise children who are having good conversations.

It may help to give the target child and a peer model/buddy a “job” (e.g. ball

Initiating and Responding

| Helping the Target Child Initiate and Respond to Peers | Helping Peers Initiate and Respond to the Target Child |
|---|---|
| Remind the Target Child To: | Remind Peers To: |
| <ul style="list-style-type: none">• Pay attention to who he/she is talking to.• Listen before trying to join an existing conversation.• Stay near the person he/she is talking to—not too close and not too far. Be sure that the target child does NOT walk away.• Use an appropriate tone of voice—not too loud and not too soft.• Direct their initiations to the peer by grabbing their attention (e.g. use a name—(e.g., Hey John!)—or lightly tap the child on the shoulder if he is not facing them).• Use facial expressions that show how they are feeling—if you’re happy, smile!• Stay on the topic of conversation (even if it is something they may not be interested in).• Be sure to take conversational turns. | <ul style="list-style-type: none">• Be patient—give the target child a few moments to respond. Sometimes it takes people a little bit longer.• Be persistent—politely try again if he/she does not respond.• Share a topic of mutual interest (talk about something they both like).• Be aware of the “right” time to approach the target child (e.g., when he/she is not already engaged).• Make sure to trade information—take turns in the conversation. |

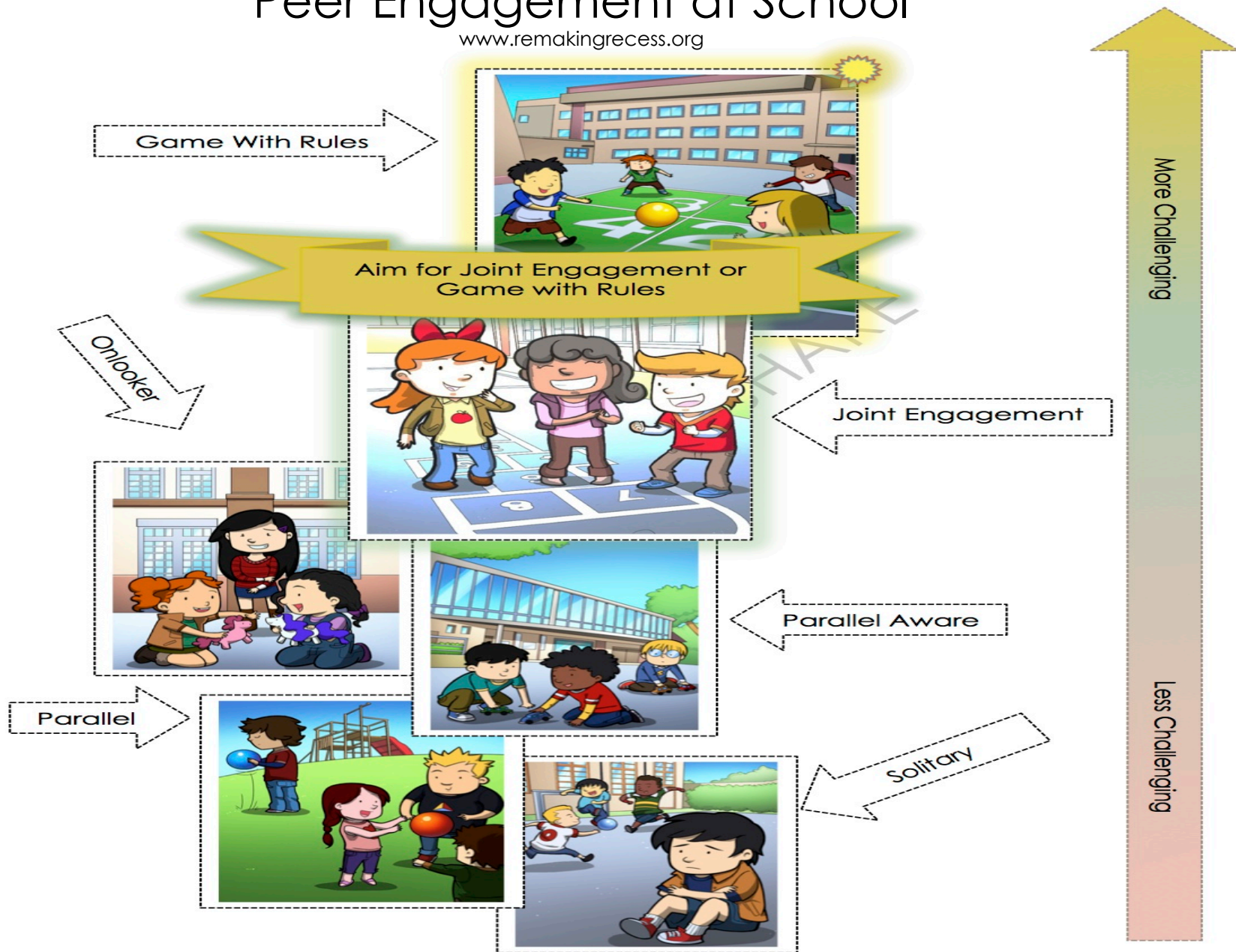


Remaking Recess continued

- Paraprofessional training over the span of about 6 weeks
 - Brief and effective!
- One-on-one coaching of paraprofessional by UCLA staff during recess and lunch
 - Does not cut into instructional time or classroom supports!
- Everything takes place at the school site

Peer Engagement at School

www.remakingrecess.org

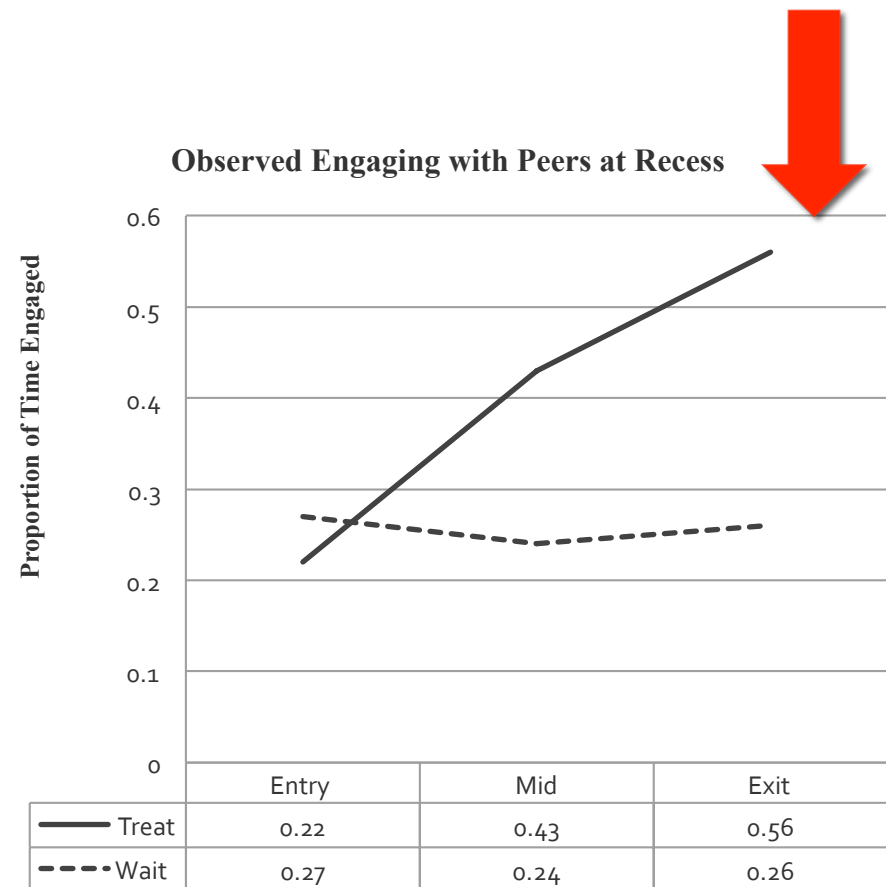


Playground Observation of Peer Engagement (POPE)

| Int | State | Chi Initiations Gen = I, Peer R = +, Peer NR = - | Chi Responses App Res = + Miss opp = - | Comments (note affect, activity, atypical behavior, who the child engages with (aide, adult, peers) and anything of importance or interest) | |
|--------|-------|---|---|---|----------------------|
| 1 | S | | | Child is alone or with an adult | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | JE | | | Child is actively socializing with a peer or peers | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | G | | | Child is playing a game with rules with a peer or peers | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| STATES | | S = Solitary | O = Onlooker | PA = Parallel Aware | G = Games with Rules |
| | | X = Proximity | P = Parallel Play | JE = Joint Engage | |

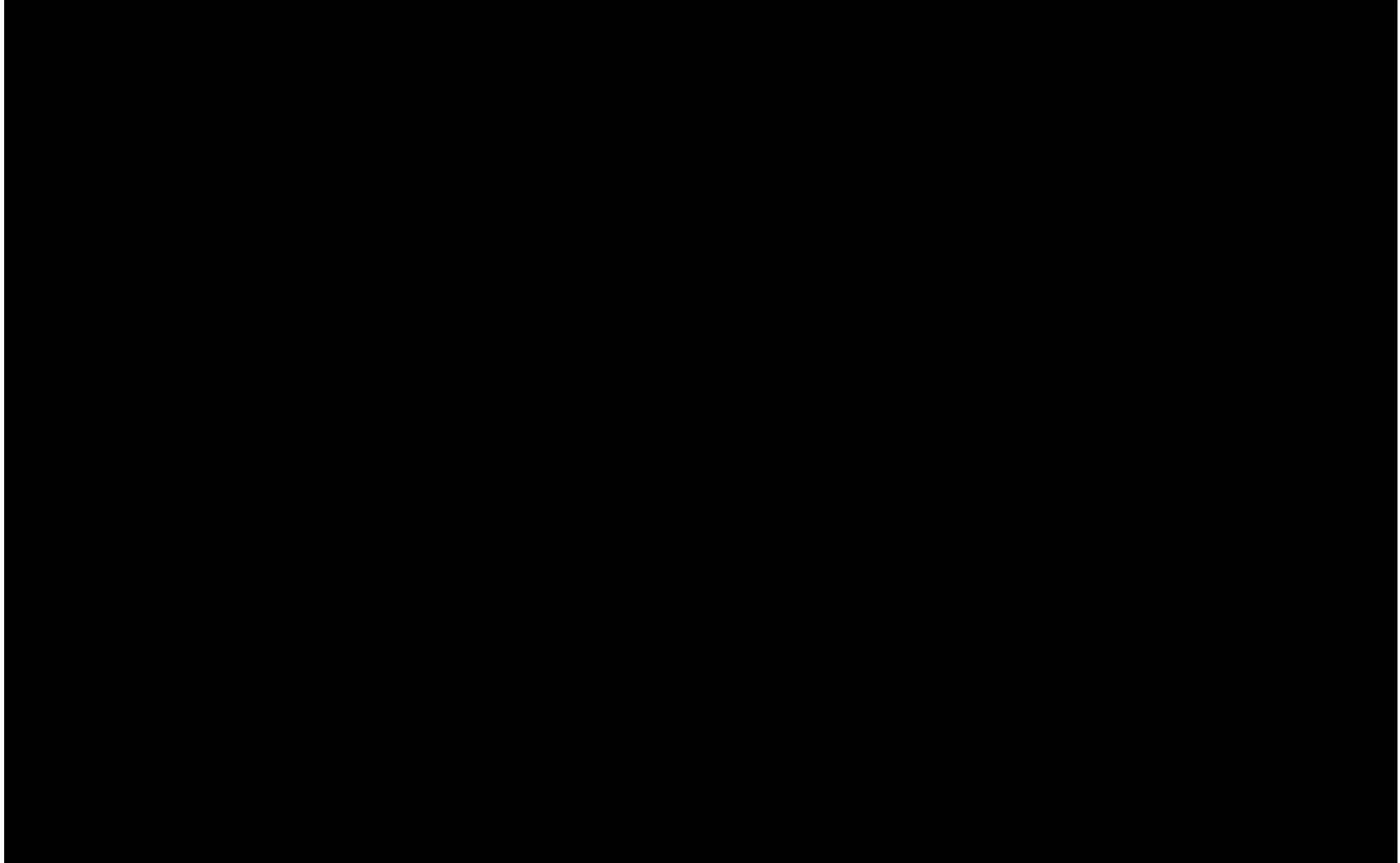
Kasari, Rotheram-Fuller, Locke, 2005

Paraprofessionals can improve child engagement on the playground (6 weeks)



(Kretzmann, Shih & Kasari, 2014)

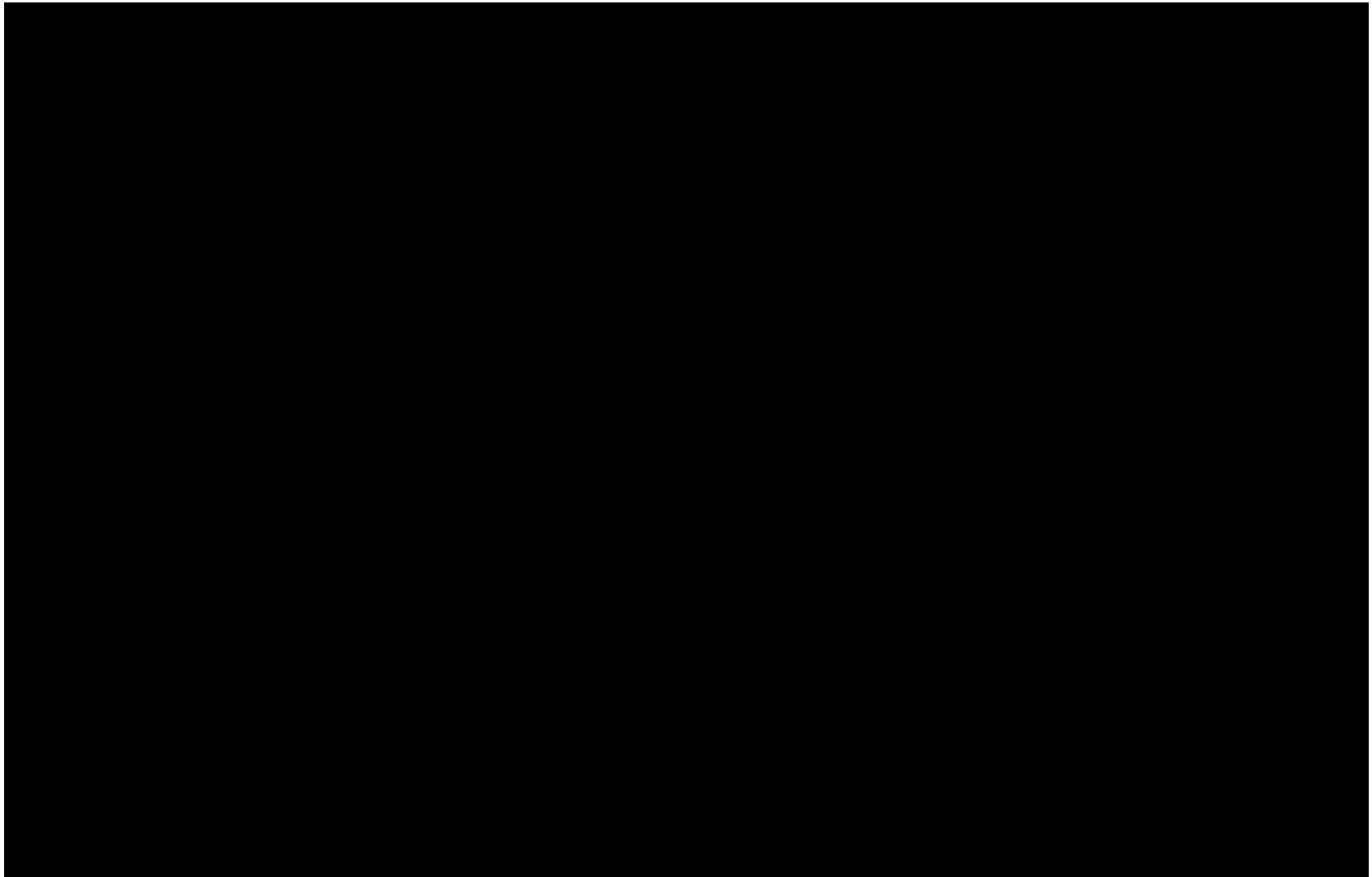
Remaking Recess Video



Key Strategies for Success

- Prime for peer engagement at recess and lunch
 - Transitions to peer engagement
- Help with social positioning
- Facilitate peer conversation
 - Social menus: The Chat Times
- Know the pulse of the play yard
 - Understand the social landscape, popular games, become a “kid” again
- Know when to stay and when to GET OUT!!!
- Get peers involved
- Refine skills in vivo as needed

Chat Times Clip

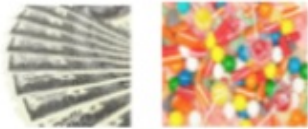


Lunchtime Social Menu

Today's Topics

These are ideas for conversations between you and your friends.

Ask a friend: Would you rather have one thousand dollars or one thousand pieces of candy?



Ask a friend: Do you have any ideas for new inventions?



Joke: What stays in the corner but travels all over the world?

Answer: a stamp

Joke: Why can't a bicycle stand up by itself?

Answer: because it's two-tired

Today's Games

Ask a friend to play one of these games today or make up your own game together.

I Spy
Alphabet Story

Please recycle!

Lunchtime Social Menu

Today's Topics

These are topics and ideas for conversations between you and your friends.

Ask a friend: What are your favorite songs?



Ask a friend: Would you rather wrestle a skunk or eat an insect?



Joke: What makes music on your head?

Answer: A headband

Joke: What time do you go to the dentist?

Answer: Tooth-Hurty

Today's Games

Ask a friend to play one of these games today or make up your own game together.

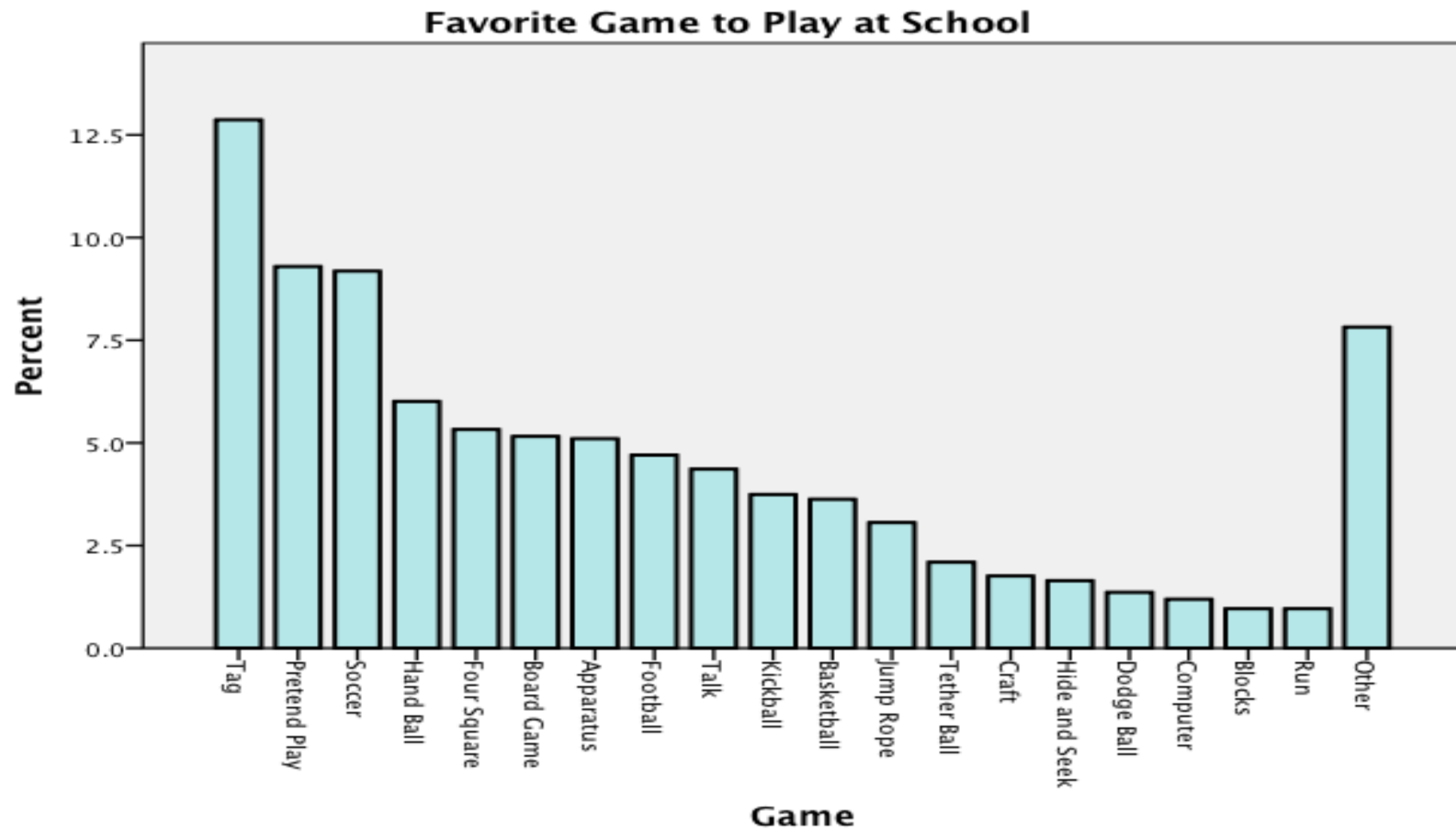
2 Truths and 1 Lie
One Word Story

Please recycle!



Social menus to encourage chatting at lunch time

And the survey says.....



What did we learn?

- Paraprofessionals can learn this intervention and increase child engagement!
 - Staff reported high satisfaction with the intervention
 - Independent raters observed child improvement
- Still a need for more classroom-level supports for the teacher and increased parental involvement

Current study in LAUSD

Funded by the Institute of Education Sciences (IES)

- Adaptive intervention model using a SMART design
- Three phases of the study
 - 1) Students receive Remaking Recess or Remaking Recess plus Classroom Supports
 - 2) Students receive a Peer Model intervention or Parent Training
 - 3) Students are assessed for progress and either stay the course or receive the other intervention
- Currently in final stages of data collection
 - Results pending- stay tuned!

GIRLS WITH ASD IN SCHOOLS

Girls with ASD

- Difficulties identifying and diagnosing girls with ASD (Girelli et al, 2010; Shadduck et al., 2009)
- Male bias in our perception of ASD
- Girls use compensatory behaviors (Dworzynski et al.2012)
- Mimicking and echoing (Knickmeyer et al., 2008)
- Camouflage (Dworzynski et al. 2012)



Sample (n=185)

- Children with ASD

- ASD

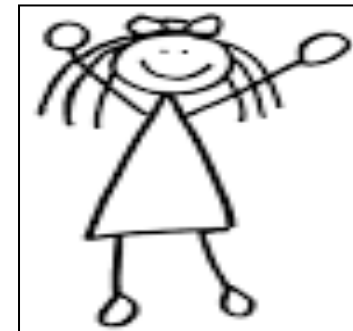
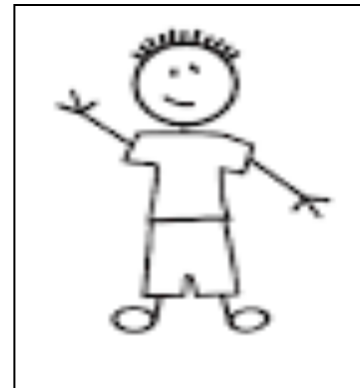
- girls=24; boys=24
 - Matched by age, IQ, City
 - Confirmed diagnosis of ASD (ADOS)
 - Average IQ (SB-5)
 - General education placement



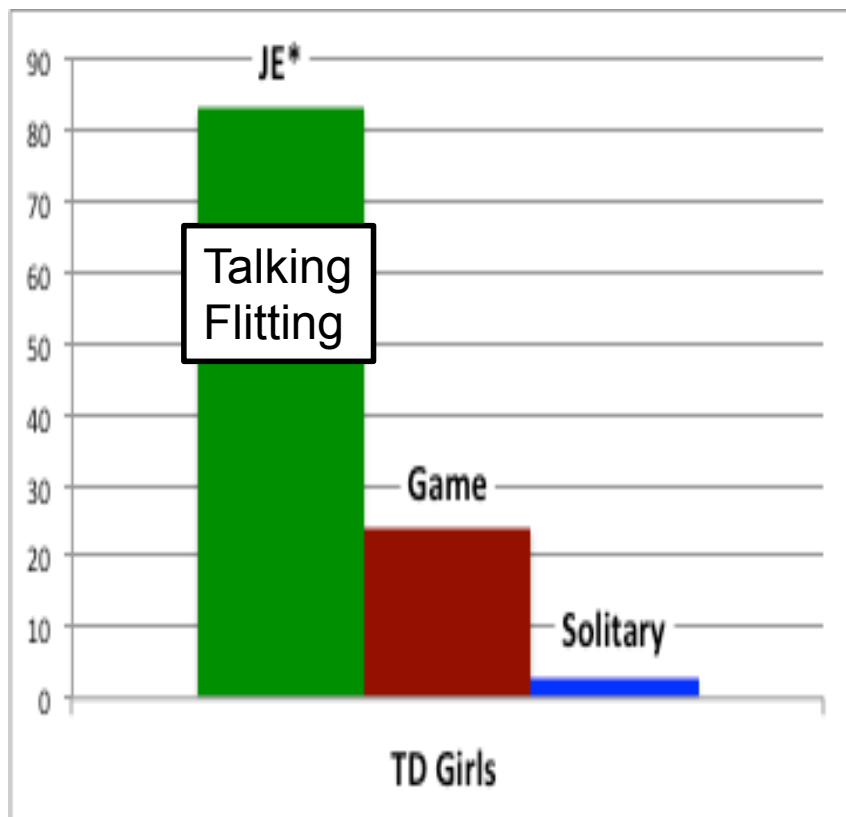
Social landscape

- Typically developing

- girls=69; boys=68
 - Classmates of a student with ASD
 - Pro-social behaviors

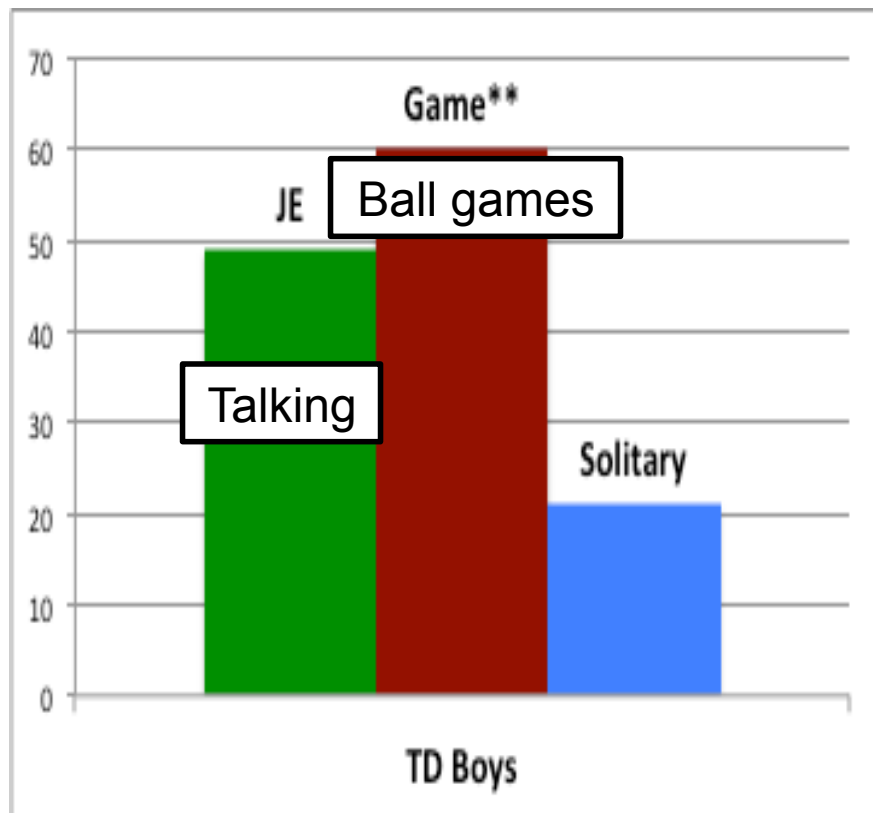


Social Landscape: TD Girls



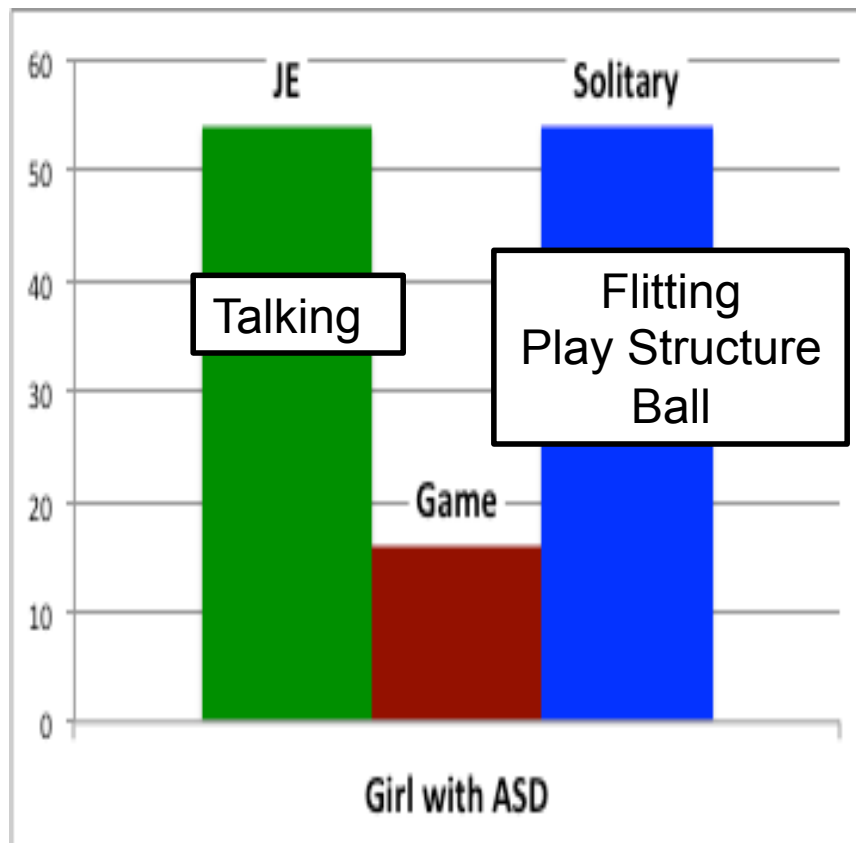
| | |
|----|---|
| JE | Walking with 2 other girls. Smiling and talking. |
| JE | Sitting in a circle pretending to paint each other's nails (2 minutes). |
| JE | 3 girls get up, hold hands and start running. |
| JE | Starts chasing a boy around. Laughing and happy. |

Social Landscape: TD Boys



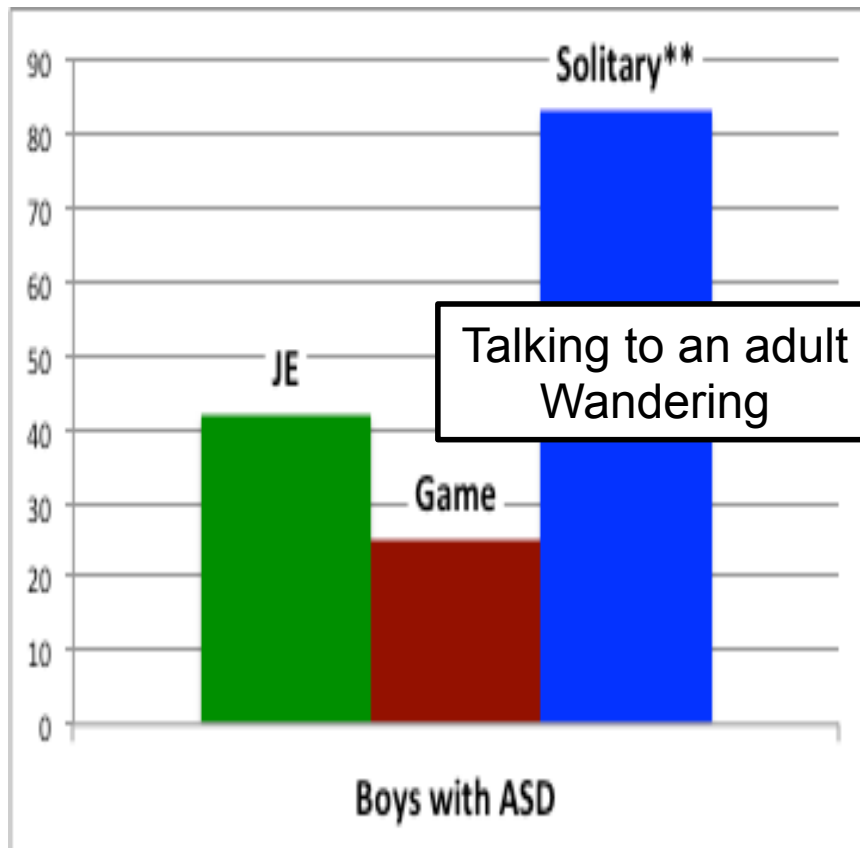
| | |
|----|---|
| JE | Getting a game organized with other kids. |
| JE | Walking around to invite kids to play |
| G | Playing handball |
| G | Got out. Conversation on bench. Laughing and watching play. |

Girls with ASD



| | |
|----|--|
| JE | Caterpillar activity with 4 girls. |
| S | Walked away from the girls. Walked close to a crowd of boys. No talking. |
| S | Standing near a group of Girls. Not part of, but close. |
| JE | Initiates to girls to do something else. Conversation. |

Boys with ASD



| | |
|---|---|
| S | Sitting alone eating snack. |
| S | Aide comes up and sits at the table with him. |
| S | Another aide comes and talks to that aide. |
| S | Smiling. Starts to go to the yard. |
| S | Wandering around with his head down. Alone. |

The female social landscape supports “Camouflage”



- Joint Engage less structured than Game
- Fluidity of female social groups
- ASD Compensatory behaviors
 - Hovering/Proximity
 - Initiations
 - Entering social activity
- Social difficulties exist

The male social landscape makes it easier to detect the social challenges of boys



- TD boys: Play focused around Games
- Stability in social activities and groups
- Boys with ASD: Solitary

Conclusion

- Camouflage hypothesis holds
 - Compensatory behaviors blends into fluid social groups
- Social challenges exist in girls and boys with ASD, but withdrawal and exclusion may be more nuanced and less obvious in female groups (Dean, Adams, and Kasari, 2013)
- Future exploration regarding intervention adaptations for girls

ASD IN UNDERSERVED COMMUNITIES

Who We Are



This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UA3MC11055-07, Autism Intervention Research Networks

Community *Partnered* Participatory Research (CPPR)

- Developed by Loretta Jones, Th.D. and Ken Wells, M.D., Ph.D.
- One of our AIR-B goals is to *reduce service disparities* for this population through developing new and sustainable interventions

Partnership approach to research:

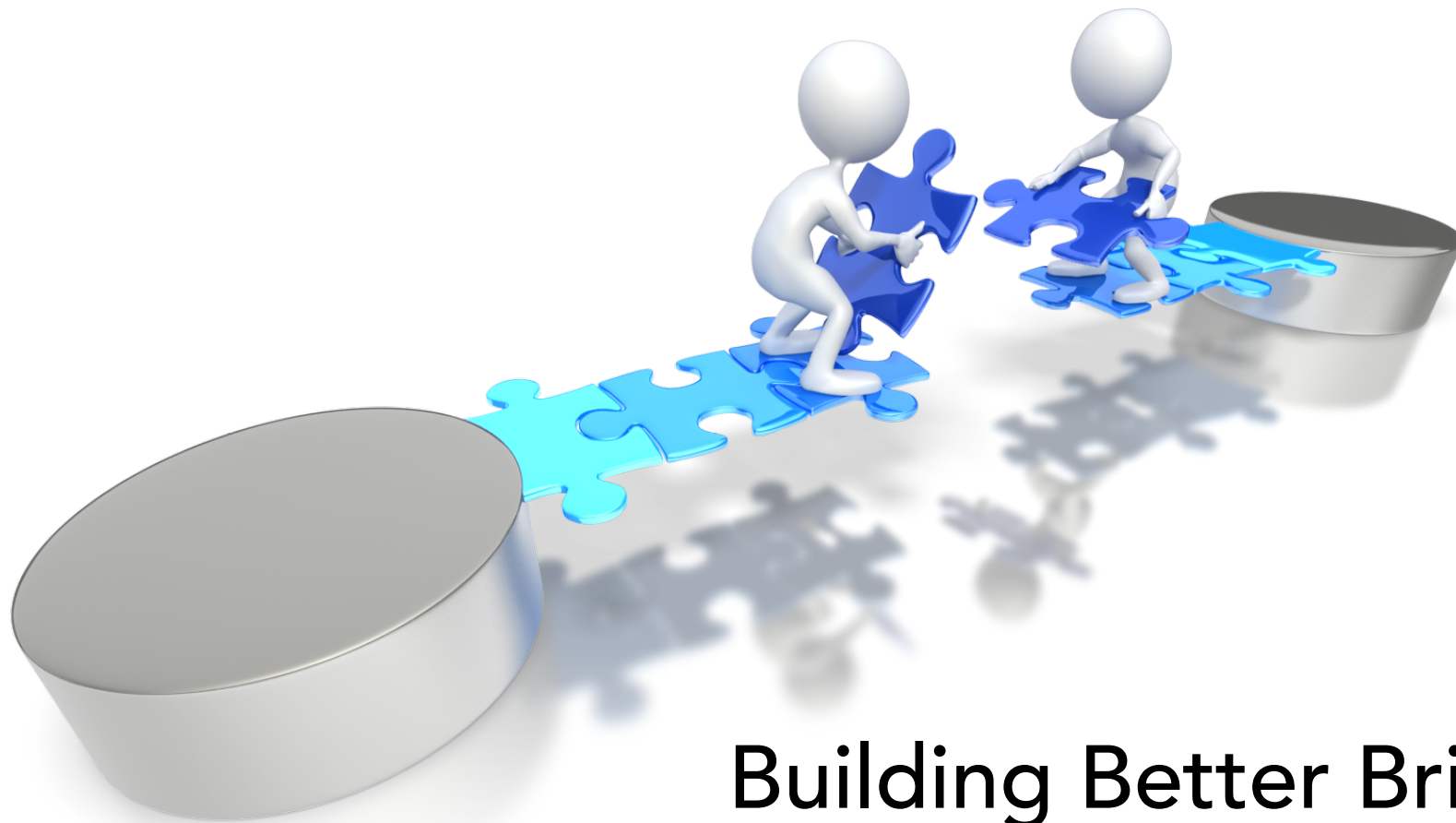
- equitable involvement of community stakeholders and researchers in all aspects of the research process
- Involved shared decision making and ownership



AIR-B Network Ideas



Interventions in Development



Building Better Bridges

Building Better Bridges



PROBLEM:
School-
based
transitions



IDENTIFY:
Barriers to
successful
transitions



DEVELOP:
Interventions
to improve
outcomes



Join us!

- Workgroups 4th Friday of every month at Healthy African American Families (HAAF) in South LA
- All are welcome!
- To learn more visit airbnetwork.org
- To be added to our listserve contact Consuelo Garcia at CoGarcia@mednet.ucla.edu



Contact information:



- For more information about CART and our research:
 - Website: <http://www.semel.ucla.edu/autism>
 - Phone: 310-825-9041
 - Email: info@autism.ucla.edu
- For more information about CAN and our menu of service options:
 - Website: <http://www.semel.ucla.edu/autism/clinic>
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 - Email: mshavers@mednet.ucla.edu

▫ Thank you!