# A Mixed-Method Study of Peer Network Interventions in Secondary Schools

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VANDERBILT
UNIVERSITY

CSESA
The Center on Secondary Education
for Students with Autism

# Session Overview

- Overview of the CSESA Project
- Promoting Social Competence and Connections
  - Developing an Initial Intervention Model
  - Listening to and Learning from Stakeholders
- Peer Network Interventions
- Findings from Two Pilot Studies of Peer Network Interventions
- Exploring a Comprehensive Intervention Model
- Discussion

# What is CSESA?

- Center on Secondary Education for Students with Autism Spectrum Disorders (ASD)
  - Funded by the Department of Education to develop and study a comprehensive high school program for students on the autism spectrum

# What is CSESA?

**Social Competence**
Structured social skills instruction
(Social Competence Intervention)
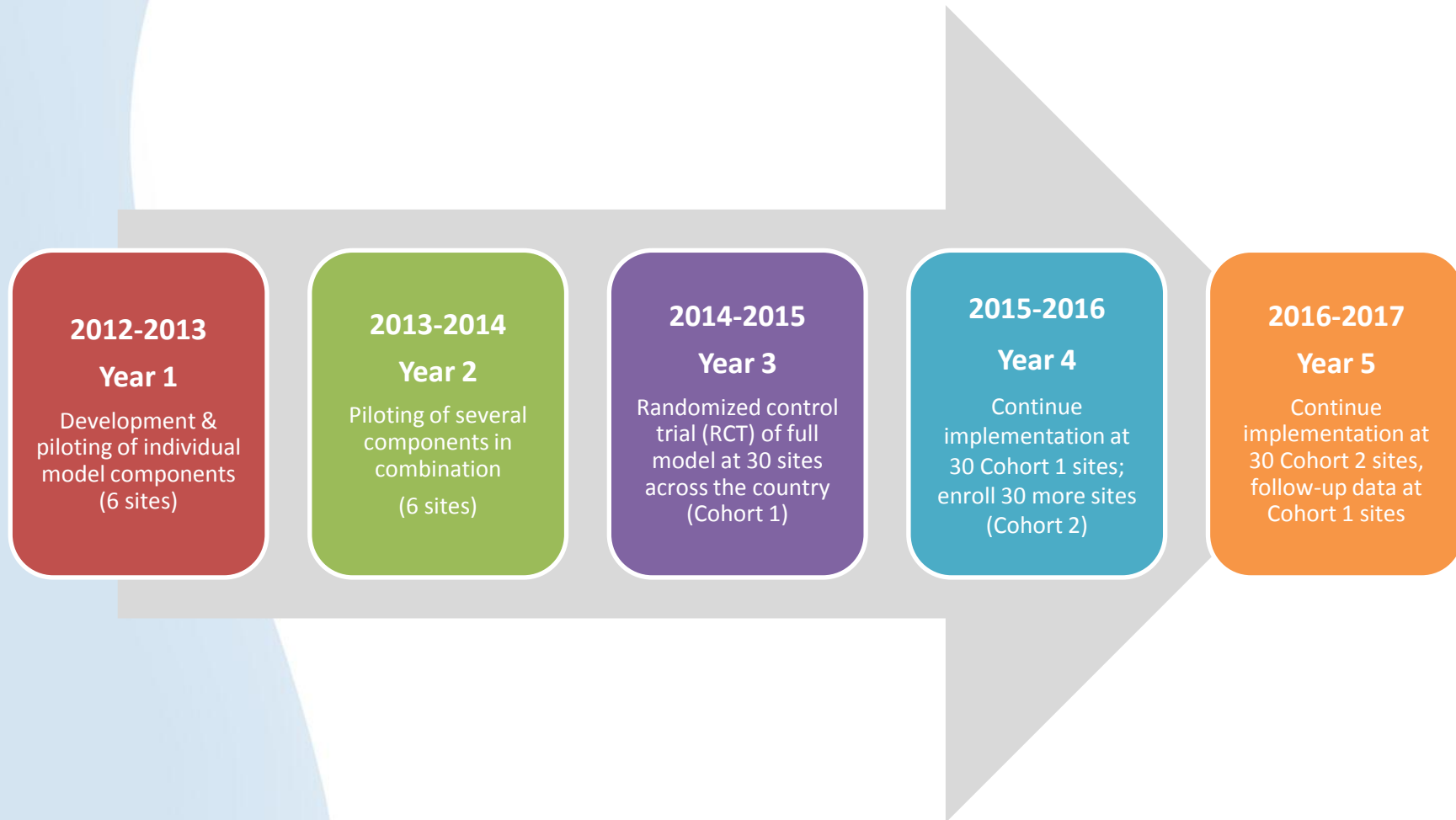Peer support
Peer networks

**Transition & Families**

**Academic**

**Promoting Responsibility, Independence, Self-Management (PRISM)**

**National Professional Development Center on Autism (NPDC)**
(building teams at the school, assessing program quality, training & coaching)

# The Big Picture

**2012-2013**

**Year 1**

Development & piloting of individual model components (6 sites)

**2013-2014**

**Year 2**

Piloting of several components in combination (6 sites)

**2014-2015**

**Year 3**

Randomized control trial (RCT) of full model at 30 sites across the country (Cohort 1)

**2015-2016**

**Year 4**

Continue implementation at 30 Cohort 1 sites; enroll 30 more sites (Cohort 2)

**2016-2017**

**Year 5**

Continue implementation at 30 Cohort 2 sites, follow-up data at Cohort 1 sites

# CSESA in the Schools: Our Hopes

### School
- Support an educational environment that works for all students
- Facilitate a positive and safe learning environment

### School Staff
- Access to high quality professional development
- Partnership with UNC CSESA team

### Students with ASD
- Access to evidence-based practices and interventions
- Potential for improved immediate and post-secondary outcomes

### Other Students
- Opportunities to participate in peer-mediated approaches and service learning opportunities
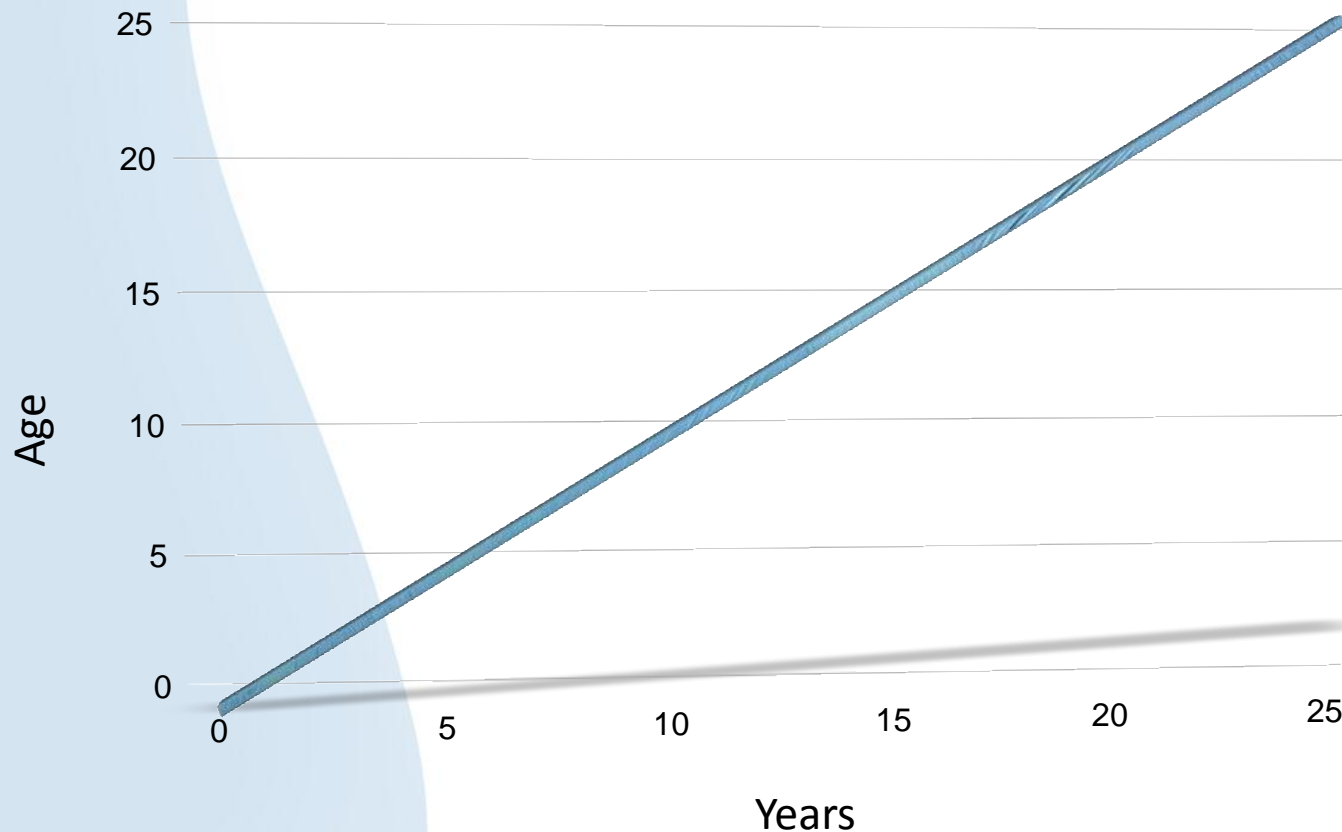- Potential for carry-over effects

### Families
- Regular participation in CSESA process and education planning

# Why is CSESA important?

Children with Disabilities Tend to Get Older with Each Passing Year

# Why is CSESA important?

It's hard to get that consistency, making sure everybody's following. That's a lot of people to get on the same page. Everybody's willing to try stuff, but we're not all using the same language, and that's confusing for somebody to work with that many people.
-Administrator

[After high school] they are completely without any supports at that point, and from then on their world seems to get smaller and smaller the child is almost always at home.
-Teacher

Individuals with ASD have poorer outcomes compared to individuals with other disabilities – even the individuals with ASD graduating from the general curriculum with a diploma.

…nearly 80% still live at home, almost half have no jobs or postsecondary training, 40% never have contact with friends, 17% never feel hopeful about the future, 21% never engage in outside activities, and many experience a decrease in insurance coverage and therapy services.
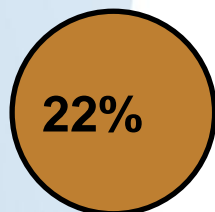– Paul Shattuck

# Promoting Social Competence and Connections

Exploring the promise and possibilities
of peer-mediated interventions for
adolescents with ASD

# Adolescent Peer Relationships

**Frequently sees friends outside of school:**

22%
Intellectual Disability

14%
Multiple Disabilities
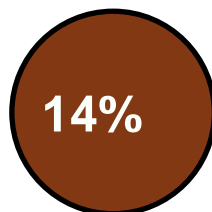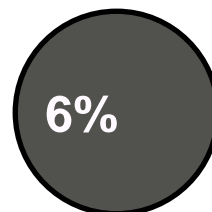
6%
Autism

**Never or rarely receives phone calls from friends:**

42%
Intellectual Disability

63%
Multiple Disabilities
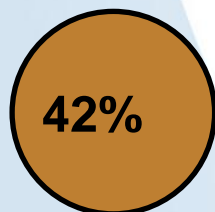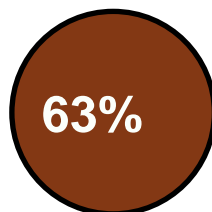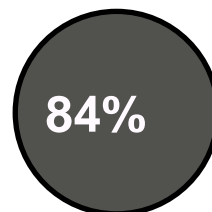
84%
Autism

**Have NOT been invited to other youth's social activities during the past year:**

25%
Intellectual Disability

43%
Multiple Disabilities

50%
Autism

Wagner, Cadwallader, & Marder (2003)
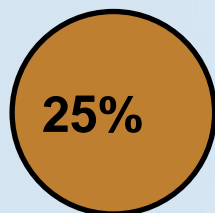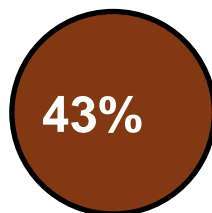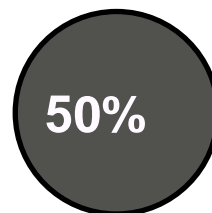
# Year 1: CSESA Study

- Focus Groups and Individual Interviews
  - With school personnel, community stakeholders, youth and young adults with ASD, and family members
  - Revised and refined components from feedback

- Pilot Studies
  - Each site tried at least one component in a high school
  - Collected data from school staff, families, and students
  - Further revised and refined components

# Literature Review & School Partnerships
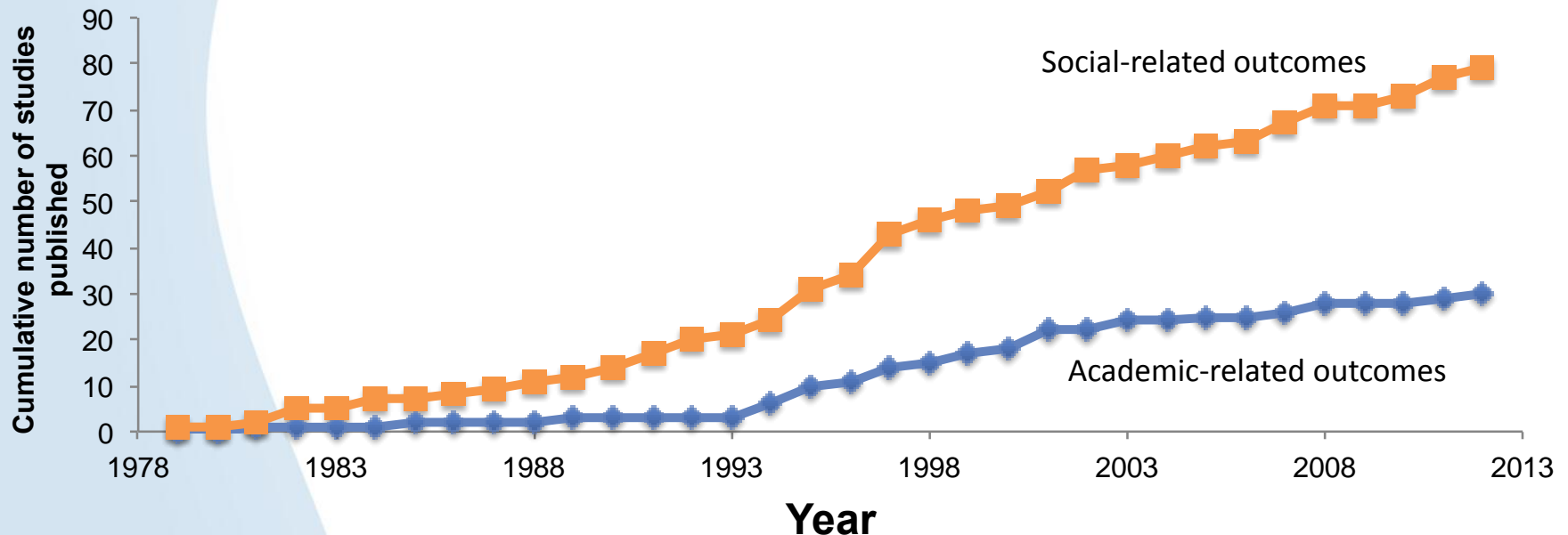


- Chung, Y., & Carter, E. W. (2013). Promoting peer interactions in inclusive classrooms for students with speech-generating devices. *Research and Practice for Persons with Severe Disabilities, 32*, 94-109.

- Carter, E. W., Sisco, L. G., Chung, Y., & Stanton-Chapman, T. (2010). Peer interactions of students with intellectual disabilities and/or autism: A map of the intervention literature. *Research and Practice for Persons with Severe Disabilities, 35*, 63-79.

- Carter, E. W., & Hughes, C. (2005). Increasing social interaction among adolescents with intellectual disabilities and their general education peers: *Effective interventions. Research and Practice for Persons with Severe Disabilities, 30*, 179-193.

# Initial **Peer and Social Component** (PASC) Model

CSEsA Peer and Social Component (PASC)

**PLANNING**

**1. Assess Student's Social-Related Needs**
Incorporate input from stakeholders (e.g., teachers, parents, youth, and other team members), assessments (e.g., SSiS, VABS, social contact data), and IEP to identify key needs.

*Although other data sources could be considered, educators will draw upon social and communication measures already used within the project.

**2. Craft Social-Focused Goals**
Write social-related intervention goals to address both short- and long-term social needs and identify school contexts in which those goals can be addressed.

*Social-focused goals would be articulated as part of the GAS process so progress could be monitored.

**3. Select Intervention Approach(es) and Contexts**
Determine which strategy(ies) are best aligned with the students' social needs, their characteristics, and the settings in which they spend their school day.

*Although intervention responses should be individualized, every student in the project would receive some type of peer-mediated intervention; only some students would participate in the SCI-H.

**IMPLEMENTATION**

**Implement Peer-Mediated Interventions**
All students participate in at least one type of peer-mediated intervention during the academic year, taking one or more of the following types:

**Implement Group-Based Social Skill Instruction**
Some students participate in the semester-long Social Competence Intervention led by school staff

**A. Peer Networks:** Students interact in facilitated small groups in regular meetings held outside of instructional time
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Peer-Mediated Intervention Components Include:
1. Identify and Recruit Peers
2. Orient All Students to the Intervention
3. Staff Facilitate Interactions and Provide Ongoing Support
4. Staff Provide Additional Training to Peers (as needed)

This cognitive-behavioral social skills training program, the SCI-H, consists of five units, with a range of five to eight 45-minute lessons per unit. Each unit offers introductory material, modeling, structured practice, and naturalistic practice. Additionally, review activities and homework are included to provide practice and review of previously learned skills and opportunities to generalize skills to real life situations.

The five units are
- Facial expressions
- Communicating ideas
- Collaboration
- Perspective taking
- Problem solving

**4. Identify and Provide Training to Facilitators**
Identify adults (e.g., special educators, paraprofessionals, school staff, community staff) who will facilitate the selected social competence intervention(s).

*We will provide this training to facilitators Year 2. But in future years, it may be worth training special educators to provide training paraprofessionals for sustainability.

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**EVALUATION**

**6. Involve Families**
Parents assist in reinforcing social-related skills, promoting interactions that extend outside of the school day, and communicating with educators about social connections.

*Discussion of family roles in fostering social competence and connections would be addressed within the Transitioning Together meetings.

**7. Collect Data to Evaluate Student Progress**
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*Progress on social-related GAS goals would be monitored by educators, along with data from social contact surveys and any other data sources.

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The five units are
- Facial expressions

# PASC Intervention Process

1. Assess student's social-related needs
2. Craft social-focused goals
3. Select intervention approach(es) and contexts
4. Identify and provide training to facilitators
5. Implement the social-focused intervention
6. Involve families
7. Collect data to evaluate student progress

# Focus Group and Individual Interviews



- Nine focus groups (involving 61 stakeholders)
  - Three with educators and administrators
  - Four with parents of children with ASD
  - Two with community representatives and providers
- Individual interviews (involving 33 youth and young adults with ASD)

# Focus Group and Individual Interviews

- Semi-Structured Interview Protocol
- Interview Options: in-person, live video, web-chat, e-mail
- Audio-recorded and transcribed
- Research Questions
  - How do key stakeholders understand the concept of "social competence and social connections" and its importance within the high school curriculum?
  - What factors might impact the development of social competence and connections for high school students with ASD?
  - How should school services and supports be optimally designed to promote social competence in effective and socially valid ways?
  - How should such interventions be addressed alongside other transition priorities within a comprehensive intervention approach?

**Analysis Team** prepares transcripts for nVivo, makes exact copies of project for the four coders, and sets target dates for the process below

| **Coders 1 & 2** | **Coders 3 & 4** |
|---|---|
| Individually code same 2 transcripts to identify initial codes and themes | Individually code same 2 transcripts to identify initial codes and themes |

**Analysis Team** meets to share initial coding framework and definitions, receive feedback from other coders, and make coding and question revisions

| **Coders 1 & 2** | **Coders 3 & 4** |
|---|---|
| Individually code next 2 transcripts, building upon initial coding framework | Individually code next 2 transcripts, building upon initial coding framework |

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| **Coders 1 & 2** | **Coders 3 & 4** |
|---|---|
| Individually code remaining 5 transcripts, revising as needed | Individually code remaining 5 transcripts, revising as needed |

**Analysis Team** meets to share the updated coding framework for Q1, Q2, and Q3; and finalize themes and definitions

Last review of all transcripts using the final framework

Feedback on overall themes and definitions to be provided by **Vanderbilt Team**

Manuscript drafted

External feedback on manuscript to ber provided by **CSESA Focus Group Team**

Manuscript submitted for publication consideration

# Stakeholder Views on Indicators of Social Success

1. Acceptance from others
2. Communication and social skills (e.g., personal space, volume, initiating, responding, reciprocity, topic appropriateness)
3. Internal processes (e.g., accepting criticism, empathy, perspective taking, forgiveness)
4. Self-determination (e.g., self-awareness, self-knowledge, self-acceptance)
5. Confidence
6. Capacity to learn from peers
7. Valuing social skills and interactions
8. Relationships (with a broad range of individuals)
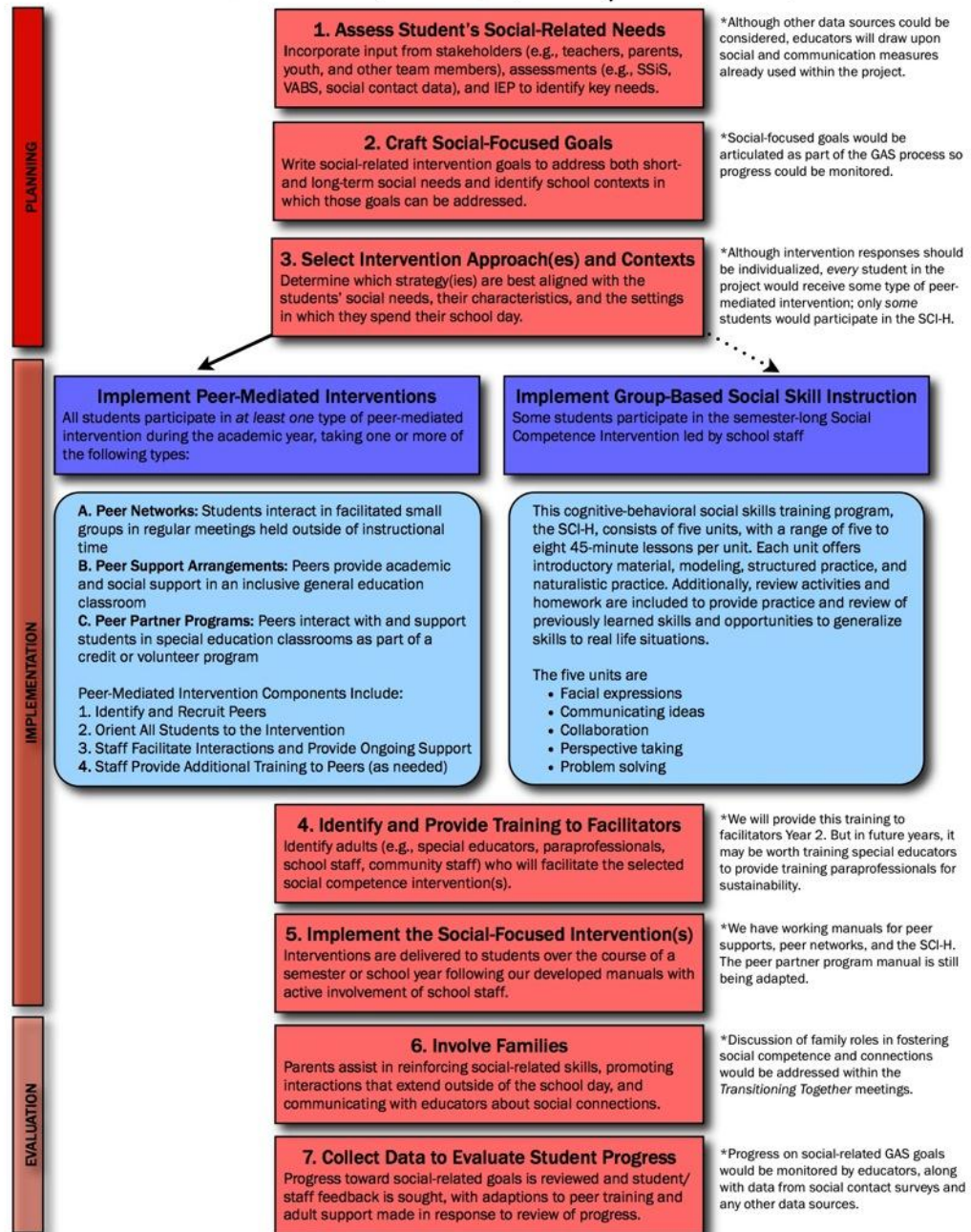9. Friendship (with peers)

# Stakeholder Recommended Strategies for Promoting Social Skills and Connections

1. Begin intervention and awareness efforts **as early as possible** to ensure positive outcomes
2. Ensure strong support exists among **school leaders** and promote schoolwide commitment
3. Make sure intervention and/or programming efforts have the **buy-in of *all* stakeholders**
4. Reflect on the school's capacity and ensure interventions are **sustainable and feasible**
5. **Actively promote awareness** and positive views about disability (and ASD specifically) widely
6. **Involve families** in meaningful ways responsive to the strengths and needs of each family
7. Identify each student's social-related needs, strengths, and goals using **meaningful assessment** procedures
8. Consider how issues of **privacy and disability disclosure** will be addressed
9. Decide with a **planning team** how the intervention will be implemented and by whom
10. Decide on avenues for **recruiting peers** and qualities they should possess
11. **Orient peers** to their roles and responsibilities within any intervention efforts
12. **Consider the contexts** for interventions and how opportunities for interaction will be designed
13. Make sure students with ASD receive effective instruction to **build social competence**
14. **Consider generalization** at the beginning of and throughout intervention efforts

| | Community | | Educators | | | Family Members | | | | All | Groups |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | A | B | C | A | B | C | D | | |
| Starting early | 0 | 2 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 12 | 3 |
| Leadership of schools | 2 | 1 | 6 | 5 | 3 | 0 | 5 | 2 | 6 | 30 | 8 |
| Buy-in of stakeholders | 12 | 12 | 16 | 18 | 8 | 5 | 8 | 5 | 14 | 98 | 9 |
| Capacity of school | 4 | 5 | 1 | 2 | 6 | 1 | 4 | 1 | 1 | 25 | 9 |
| Promote awareness | 15 | 5 | 7 | 4 | 4 | 8 | 21 | 15 | 12 | 91 | 9 |
| Involvement of family | 1 | 6 | 4 | 5 | 5 | 10 | 7 | 10 | 6 | 54 | 9 |
| Assessment of needs | 5 | 11 | 4 | 6 | 0 | 4 | 4 | 1 | 1 | 36 | 8 |
| Disclosure of disability | 2 | 1 | 5 | 0 | 4 | 6 | 13 | 9 | 2 | 42 | 8 |
| Implementation of interventions | 5 | 7 | 8 | 4 | 4 | 3 | 7 | 3 | 2 | 43 | 9 |
| Recruitment of peers | 11 | 4 | 6 | 5 | 1 | 3 | 6 | 0 | 0 | 36 | 7 |
| Equipping of peers | 9 | 18 | 16 | 7 | 2 | 9 | 7 | 4 | 2 | 74 | 9 |
| Nature of opportunities | 4 | 10 | 10 | 10 | 2 | 3 | 12 | 1 | 7 | 59 | 9 |
| Skills of students | 2 | 3 | 1 | 3 | 2 | 0 | 3 | 0 | 0 | 14 | 6 |
| Issues of generalization | 0 | 0 | 4 | 2 | 0 | 0 | 1 | 1 | 0 | 8 | 4 |

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# Peer Network Interventions

# What is a Peer Network?

- A social group of students established around a student with a disability that
    - Meets weekly to talk, participate in a shared activity, and discuss interactions that occur outside the group
    - Helps the student become more involved in everyday school life
    - Receives regular feedback and guidance from an adult facilitator

Peer Network Strategies to Foster Social Connections Among Adolescents With and Without Severe Disabilities

Erik W. Carter, Jennifer Asmus, Colleen K. Moss, Molly Cooney, Katie Weir, Lori Vincent, Tiffany Born, Julia M. Hochman, Kristen Bottema-Beutel, and Ethan Fesperman

*TEACHING Exceptional Children, Vol. 46, No. 2, pp. 51-59. Copyright 2013 CEC.*

TEACHING EXCEPTIONAL CHILDREN | Nov/Dec 2013 51

# Goals of the Peer Network

- Provide a intentional way for a student with a disability to meet new people and, hopefully, make new friends
- Increase the number of peers with whom a student with a disability regularly interacts
- Provide peers with opportunities to get to know a student with a disability
- Increase school participation of a student with a disability
- Help develop relationships that will last beyond the semester
- May increase independence

# Basic Steps for Implementing a Peer Network

1. Identify interested students with a disability
2. Identify a network facilitator (teacher, paraprofessional, counselor, etc.)
3. Invite 3-6 peers to join the group
4. Hold an initial orientation meeting
5. Facilitate regular peer network meetings
   - Arrange a shared activity in which all members of the group can participate and enjoy
   - Check-in on weekly social contacts
   - Encourage expansion of the network
6. Provide feedback and support
7. Fade adult support and maintain the network

# Training for Adult Facilitators

- Orientation to the project and their role in implementing peer networks

- Ongoing coaching throughout the project

- Additional support as needed

# Weekly Meeting Elements

- These meetings provide a venue for...
    - Peer network members, including the student with a disability, to interact and informally discuss weekly interactions
    - Modeling and facilitating peer interactions
    - Peers and the student with a disability to consider how to extend the Peer Network beyond the school day

- Social time and/or activities
    - Card games, board games
    - Basic cooking activities (Trail Mix, Nachos, S'mores)
    - Sports/outdoor activities
    - Eating lunch

# Importance of the Weekly Social Interactions

- Informally scheduled interactions between the student with a disability and peer partners throughout the week

- Weekly social contacts are intended to

  - Increase the number of interactions between the student with a disability, peer partners, and possibly other students

  - Increase participation of the student with a disability at school events

  - Promote the development of relationships

# Findings From Two Peer Network Pilot Interventions

# Participants

- 6 high school students with ASD
  - Male
  - Ages 14-18
  - 2 African-American, 2 European-American, 2 Hispanic
  - 5 students had labels of intellectual disability and autism, 1 student had a medical diagnosis of Asperger's
- 4 adult facilitators
  - 1 special educator, 3 paraprofessionals
- Each group had 1-4 peers partners (students without developmental disabilities)

# Setting

- Three diverse metropolitan high schools
  - 675 to 1,980 students
  - 73 to 90% of students were eligible for free or reduced-price meals
  - 29 to 68% of students were Black
  - 23 to 24% of students were White
  - 6 to 39% of students were Hispanic
- Four networks met during a 30-min lunch period
- Two networks met during a 30-min advisory period

# Facilitator Training

- Covered each section of the peer network manual
  - Identifying social-related needs
  - Recruiting peers to be a part of the network
  - Orienting students to their roles
  - Providing ongoing facilitation of the network
  - Fading adult support
- 40-60 min individual training sessions

# Peer Network Training

- Both focus student and peer partners attended orientation meetings
  - Introduction activities and shared interests
  - Discussion of goals for the group and ways to work toward goals
  - Discussion of confidentiality and respectful language
  - Suggestions on ways to interact socially
  - Scheduling of regular meeting times

# Orientation Checklist

**Orientation Meeting Checklist**
*(to be completed by the coach after the orientation meeting)*

Student ID:_____

Date:_____

Total number of students at meeting:_____

Coach:_____

*Circle Y (yes) or N (no) based on whether the following occurred:*

1.  Y   N Was the focus student present?

2.  Y   N   Were all of the peer network members in attendance? List names of peers that were present._____
    _____

3.  Y   N   Did the peers and student with autism (SWA) introduce themselves and participate in introductory activities appropriately (if SWA is mostly nonverbal, did the facilitator introduce him or her to the group and give non-confidential background information?)?

4.  Y   N   Did students mention any shared interests? If so, what?_____
    _____
    _____

5.  Y   N   Did the group discuss the goals for the group? List any goals suggested by group members. _____
    _____

6.  Y   N   Did the group discuss ways to work toward the goals of the network?

7.  Y   N   Did the facilitator discuss the importance of confidentiality and respectful language?

8.  Y   N   Did the group talk about when social interactions can occur?

9.  Y   N   Did the facilitator offer specific suggestions on ways to interact socially?

10. Y   N   Did the group schedule regular meetings or discuss the date of the next meeting?

11. Y   N   Was the facilitator present?

Comments: _____
_____
_____
_____
_____

# Network Meetings

- Students participated in at least one activity or conversation together jointly chosen by students and facilitators

- Targeted social-related goal was addressed directly or indirectly

- Facilitator provided support, encouraged discussion, and gave prompts as needed to keep activity/conversation going

# Fidelity Checklist

**Social Network Weekly Meeting Checklist**
*(to be completed by the primary observer after network meetings)*

Focus Student:_____
Facilitator:_____
Date:_____
Total number of students at meeting:_____

*Circle Y (yes) or N (no) based on whether the following occurred:*

1. Y  N  Was the focus student present for the majority of the network meeting?

2. Y  N  Were at least 2 of the network partners in attendance? List names of network partners who were present._____ _____

3. Y  N  Did the network partners participate in activities and/or conversation appropriately?

4. Y  N  Did the focus student participate in activities and/or conversation appropriately?

5. Y  N  Was the targeted social-related goal addressed?

6. Y  N  Was the facilitator present at least 10% of the time (3 minutes)?

7. Y  N  Did the facilitator encourage discussion and give prompts as needed to keep the activity and conversation moving along?

8. Y  N  Did the facilitator offer specific suggestions on ways to connect socially outside of the group meeting?

9. Y  N  Did the group discuss the date of the next meeting?

10. Y  N  Did network partners suggest activities or conversation topics for the next meeting? If so, what? _____ _____

11. How many of the network partners reported having interactions with the focus student? _____

Notes:
_____
_____

What could have been better?
_____
_____

# Measures

- Proximity: in a position affording the opportunity to interact socially with that person
- Support behaviors of facilitators and peers: e.g., prompts to interact with others, encouraging other peers to interact with the student, explicitly teaching or modeling specific social skills, praising communication attempts
- Social-related goal: teacher-identified social-related goal that could be addressed within the peer network group
- ★ Social interactions: any communicative behaviors including verbal (e.g., speech, electronic communication devices) or nonverbal (e.g., gestures, signs) behaviors
- ★ Social engagement: overall social engagement with peers (i.e., active, passive, or unengaged)

# Experimental Design

- Multiple baseline across participants
- MBL/Withdrawal (ABAB, ABA)

# In the Cafeteria
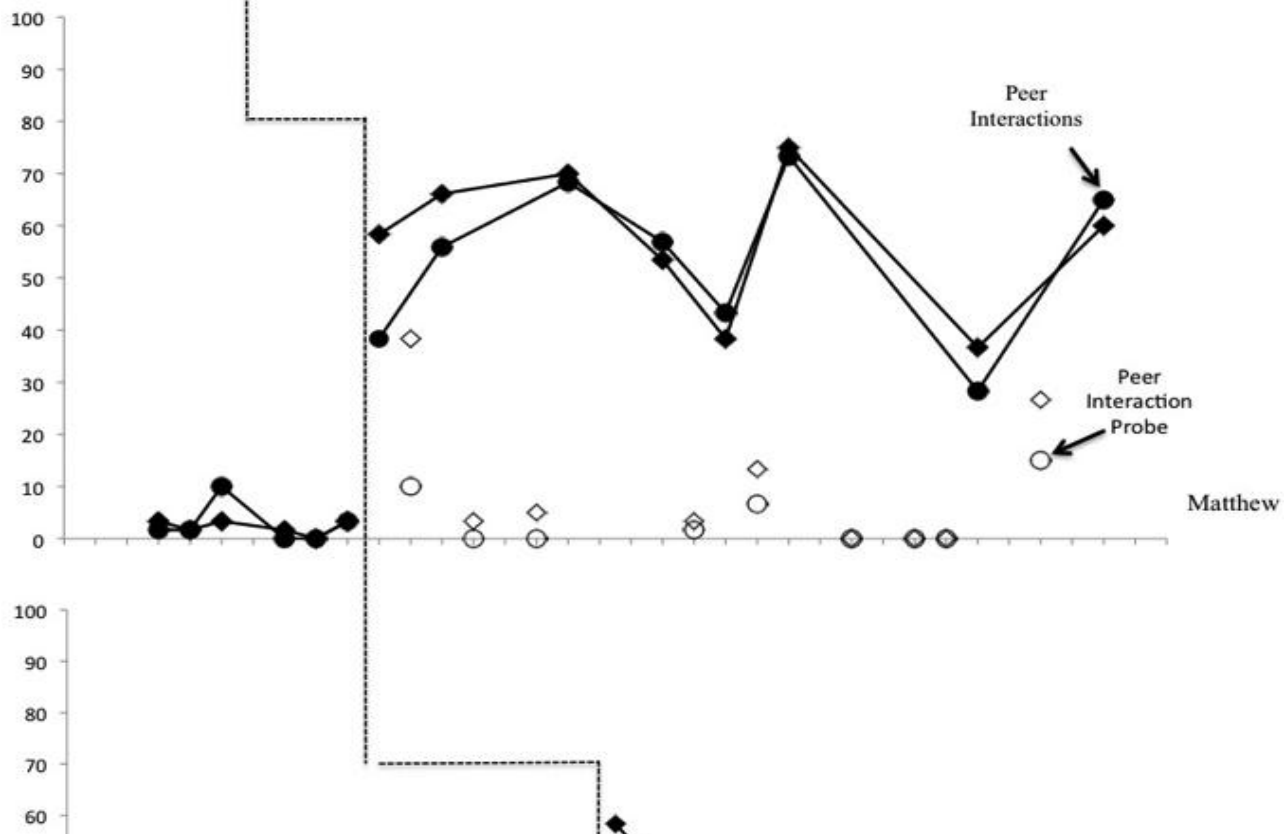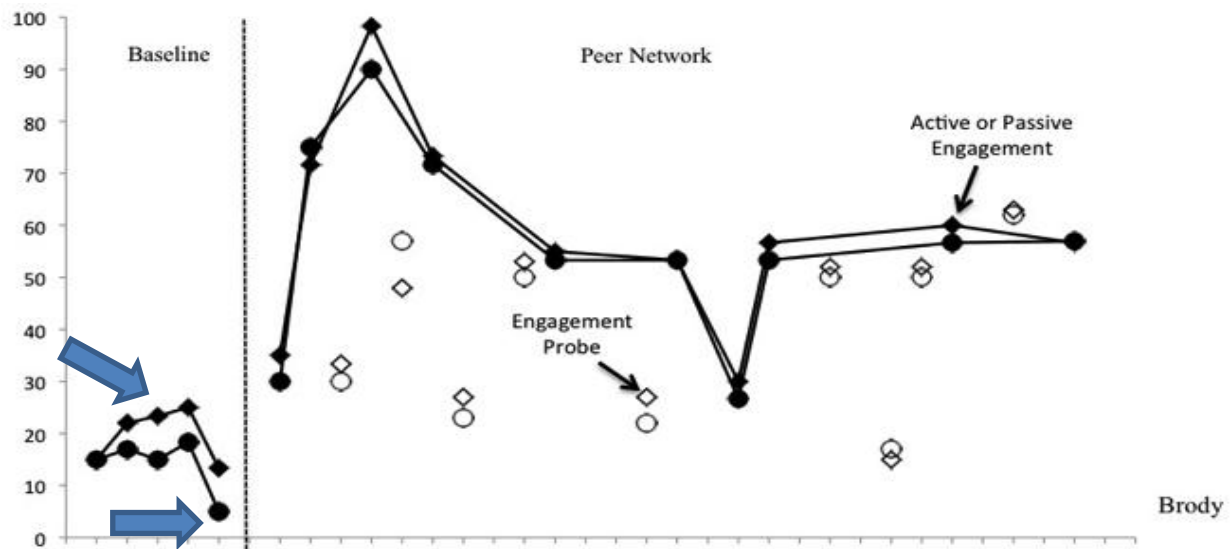
Hochman, Carter, Bottema-Beutel, Gardner, Harvey, Gustafson, & Huber (in preparation)

# In the Classroom (Advisory)
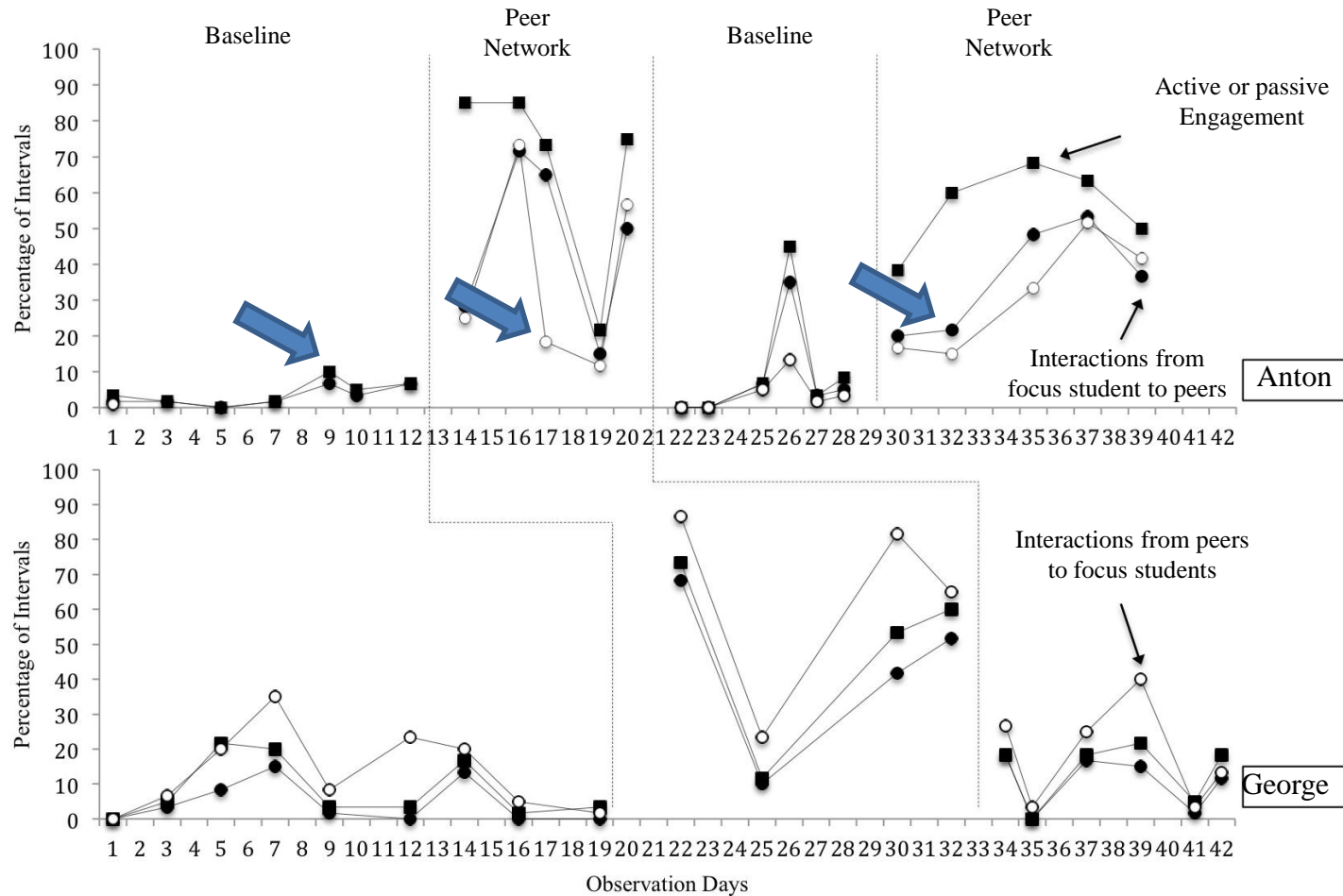


Figure 1. *Percentage of intervals in which focus students were actively or passively engaged (closed squares), the focus studen[t] interacted socially with peers (closed circles), and a peer interacted socially with the focus student (open circles).*

# Increases in Peer Interactions
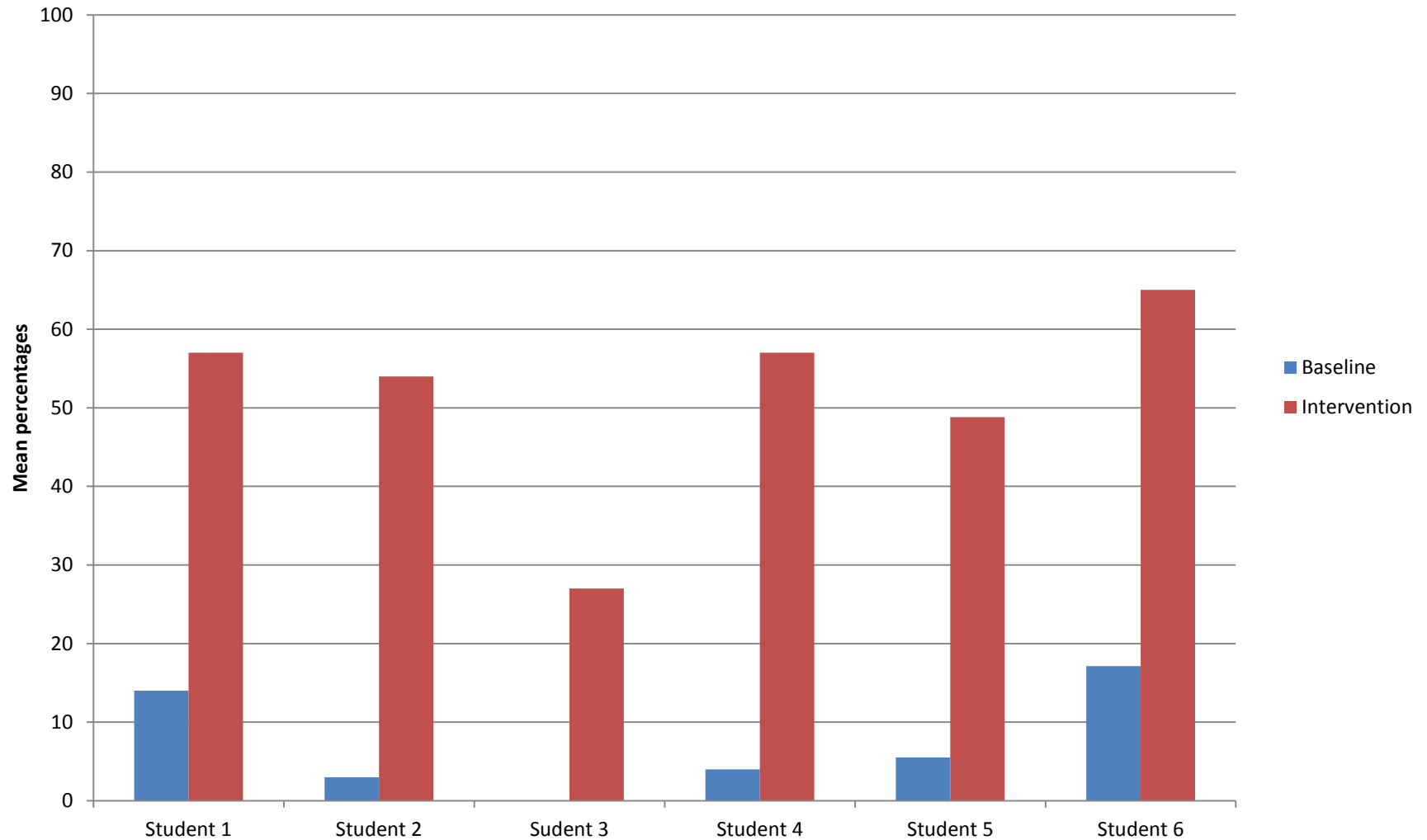
# Participant Perspectives

- Facilitator
  - "The student wants to make friends."
  - "The student talks a lot about his peer buddies."
  - "The peer partners learned more about special needs and their own compassion."
- Peer
  - "The networks help[ed] me see that at times not everybody has the same point-of-view on different matters."
  - "I've been able to communicate better with the kids, but also with other people."
  - "My eyes are more open to my partner's needs."

# Key Findings

- Peer networks are a relatively easy (and inexpensive) way to address social-related support needs of adolescents with ASD

- Students with and without ASD benefit socially from participating in peer networks

- Peer networks substantially increase social engagement and foster social connections

# Exploring a Comprehensive Intervention Model

# The Big Picture



**2012-2013**

**Year 1**

Development & piloting of individual model components (6 sites)

**2013-2014**

**Year 2**

Piloting of several components in combination (6 sites)

**2014-2015**

**Year 3**

Randomized control trial (RCT) of full model at 30 sites across the country (Cohort 1)

**2015-2016**

**Year 4**

Continue implementation at 30 Cohort 1 sites; enroll 30 more sites (Cohort 2)

**2016-2017**

**Year 5**

Continue implementation at 30 Cohort 2 sites, follow-up data at Cohort 1 sites

6 schools
2 components at each

10 students per school

# Year 2: CSESA Study

- At each site:
  - One high school
  - 7-10 students with ASD
  - CSESA Foundations + 2 components

- At Vanderbilt:
  - CSESA Foundations
  - Peer and Social Component (PASC)
  - Transition & Families

| Academic | Independence & Behavior | Social | Transition & Families |
|---|---|---|---|

**CSESA Foundations**

# CSESA Model Framework



**Professional Development**

**School/Community**
Online Course, Initial Training, Transition Training, and Ongoing Coaching

## Assessment

| School/Community | Student |
|---|---|
| Resource Mapping/APERS | SSS Checklist Strengths & Needs |

## Planning

| School/Community | Student |
|---|---|
| A-Team | IEP and GAS goals |

## Implementation

School/Community/Student
AAL, CSR, PASC, SCI-H, PRISM, WBLEs, EBPs

## Evaluation

| School/Community | Student |
|---|---|
| Re-Mapping/APERS | Student Portfolio |
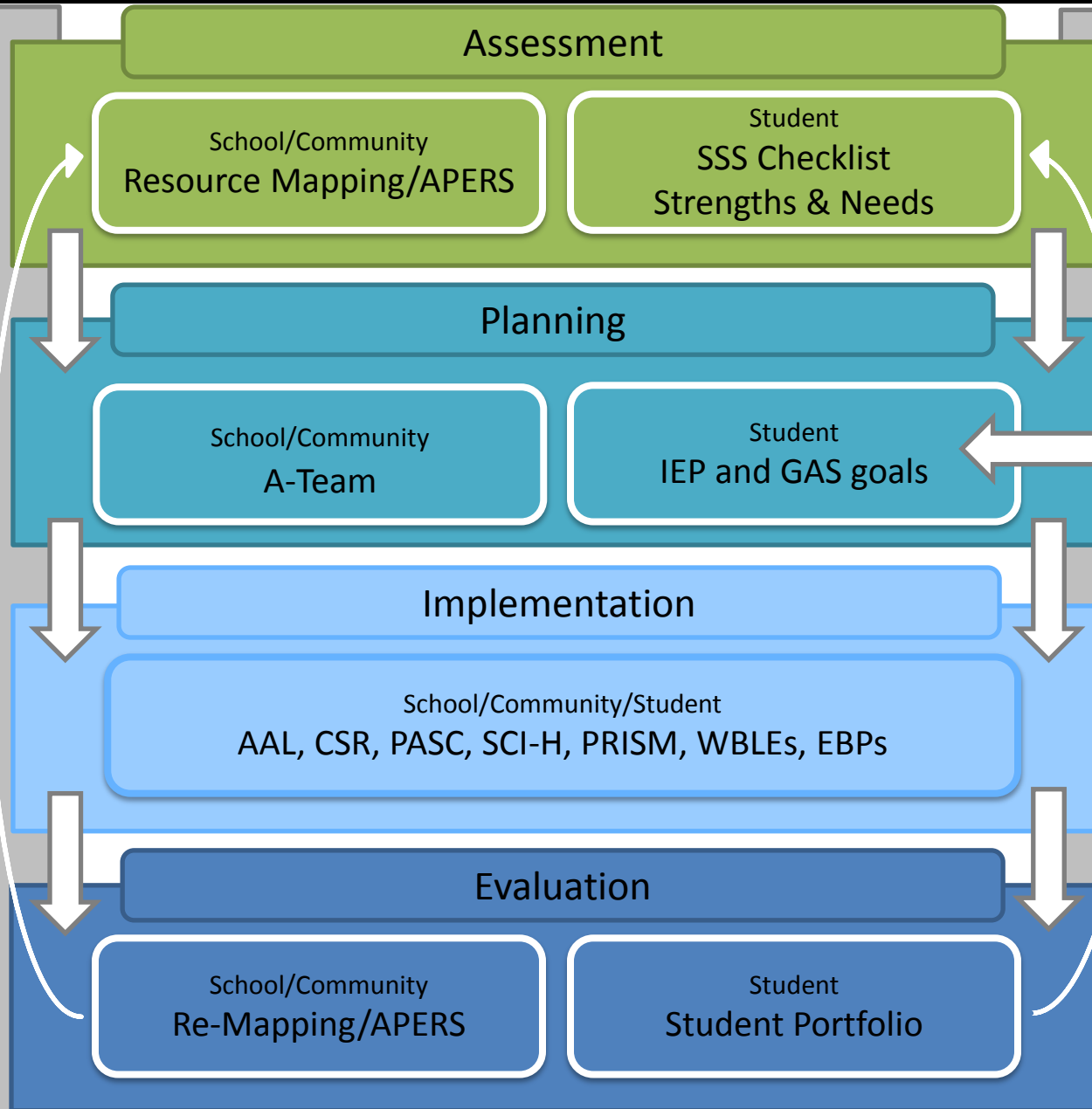
**Student**
IEP Involvement

**Family**
Transitioning Together

**Equipping & Empowering**

Website:

http://csesa.fpg.unc.edu/

# Thank you!

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CSESA
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for Students with Autism