

School-based Interventions for Students with Autism: Focus on Fidelity

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Goals of the Session

- Provide rationale for a comprehensive treatment model in high school for students with autism and importance of fidelity
- Describe four components of the CSESA model
- Provide details of the ways practitioners use of the model with fidelity occurs and is supported
- Discuss the challenges and solutions in implementing the model

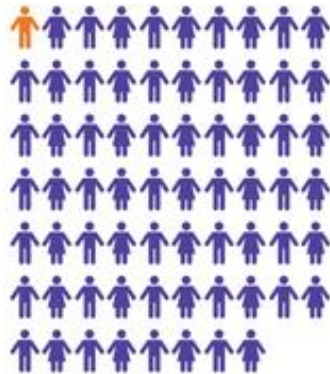
Autism

- Social communication challenges
- Restrictive and repetitive behavior
 - Need for stable, predictable environment
- Range of cognitive and academic abilities from intellectually gifted to intellectually disabled
- Predominantly boys (75%)



Autism in High Schools

NUMBER OF CHILDREN
IDENTIFIED WITH ASD



1 in 68



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

14.9 million
students in U.S
between 9-12
grades

$14.9\text{m} \times (1 \text{ in } 68) =$

219,118

What Are the Outcomes for Young Adults with Autism

What happened to young adults with autism
between high school and their early 20s?



National Autism Indicators Report: Transition into Young Adulthood. A.J. Drexel Autism Institute's Life Course Outcomes Research Program, 2015. drexelju/autismindicators

About CSESA

- Research & Development Center
- Funded by the Department of Education (IES)
- Purpose: To develop and study a comprehensive high school program for students on the autism spectrum



Original CSESA Collaborators



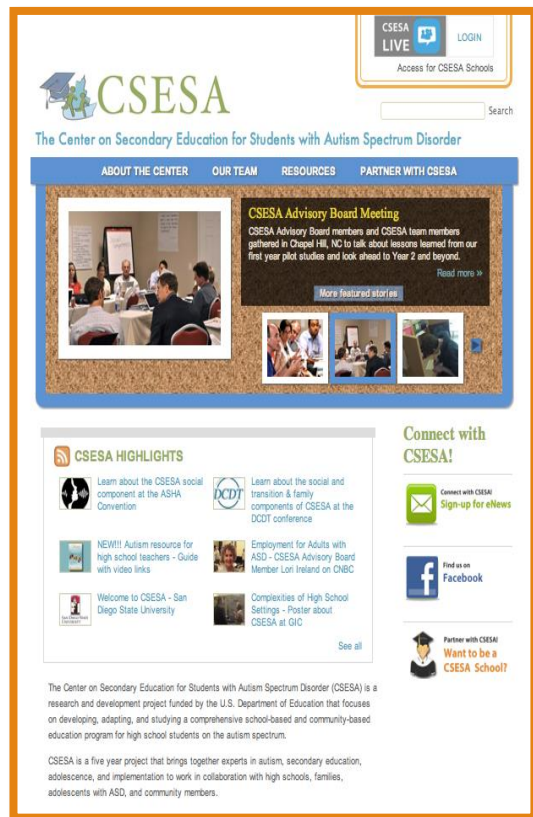
UNC

FRANK PORTER GRAHAM
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Find CSESA

- [HTTP://CSESA.FPG.UNC.EDU/](http://CSESA.FPG.UNC.EDU/)



The screenshot shows the CSESA website homepage. At the top is the CSESA logo and tagline: "The Center on Secondary Education for Students with Autism Spectrum Disorder". Below this is a navigation bar with links: ABOUT THE CENTER, OUR TEAM, RESOURCES, and PARTNER WITH CSESA. A featured article titled "CSESA Advisory Board Meeting" is displayed, mentioning that members gathered in Chapel Hill, NC to discuss lessons learned from their first year pilot studies. A "CSESA LIVE" section with a "LOGIN" button and "Access for CSESA Schools" is visible. A "Search" bar is also present. On the left, a "CSESA HIGHLIGHTS" section lists several resources, including a social component at the ASHA Convention, a guide for high school teachers, and a poster about CSESA at GIC. On the right, a "Connect with CSESA!" section offers options to sign up for eNews, find CSESA on Facebook, and partner with CSESA. At the bottom, a paragraph describes CSESA as a research and development project funded by the U.S. Department of Education, focusing on developing, adapting, and studying a comprehensive school-based and community-based education program for high school students on the autism spectrum. It also mentions that CSESA is a five-year project bringing together experts in autism, secondary education, adolescence, and implementation to work in collaboration with high schools, families, adolescents with ASD, and community members.

- WWW.FACEBOOK.COM/CSESA.ASD



The screenshot shows the CSESA Facebook page. The page header includes the CSESA logo, the name "Center on Secondary Education for Students with Autism Spectrum Disorders", and navigation tabs for "Timeline" and "Recent". An "Admin Panel" link is in the top right. The main cover photo shows a student in a blue graduation cap and gown, smiling and holding a diploma. Below the cover photo is the CSESA logo and the page name. To the right of the page name are buttons for "Update Page Info", "Liked", and "Following". Below this, it says "246 likes · 6 talking about this". The "About" section is visible, stating: "The Center on Secondary Education for Students with Autism Spectrum Disorders (CSESA) is a multi-site research and development center." To the right of the "About" text is a photo of a student working at a desk. Below the "About" section are tabs for "About", "Photos", and "Likes". At the bottom, there is a "Highlights" dropdown menu.

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

Shout out for CSESA

- **1,800** consented participants
- **546** adolescents with **ASD**
- **30** school districts across **5** states
- **60** schools
- **2,000** hours of professional development (this year)
- **18** peer-reviewed publications
- **55** international, national, state, and local conferences
- **130,000** page views with **27,000** downloads



CSESA Domains



- Partner with teams at each high school
 - provide ongoing training and coaching in the implementation of specific interventions along with associated evidence-based practices
- Plan the implementation across a 2-year-period

Academic Component: Literacy

Alternate Achievement Literacy

*(for students receiving alternate
assessments)*

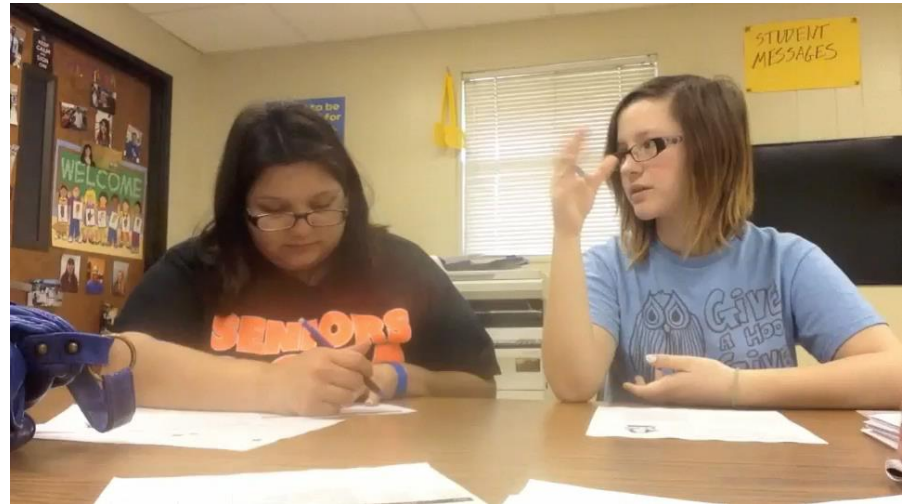
- Access/comprehend text that is chronologically age appropriate by using adaptations, modifications, and technology
- Comprehend passages of connected text
- Apply comprehension across both narrative and informational text



Academic Component: Literacy

Collaborative Strategic Reading – High School

- Consists of EBPs to enhance reading comprehension
- Uses a peer-to-peer model
- Includes *before-during-after* reading strategies and elements of cooperative learning
- Manualized intervention that should be implemented 2 to 3 times per week for a minimum of 16 weeks.



Peer & Social Competence Component

Social Competence

Intervention (SCI-H)

- A manualized cognitive-behavioral social skills training program for students with high functioning ASD
- Units focus on a) recognition of facial expression, b) sharing ideas with others, c) turn taking in conversations, d) recognizing emotions, and e) problem solving
- Implemented as part of a teen social skills group in the high-school setting



Peer & Social Competence Component

Peer Mediated Interventions (Peer Networks and Peer Supports)

- Teaching typical peers specific techniques for engaging students with disabilities in social and communicative interactions
- Peer support strategies expand on peer mediated interventions by
 - a) teaching peers to support engagement in general curriculum contexts and
 - b) establishing a social network of support within the school



Independence and Behavior Component

Promoting Responsibility, Independence, and Self-Management- PRISM

- Use of **Evidence Based Practices**, as identified by NPDC, to support goals related to student independence and behavior
- CSESA team **provides training and coaching on what the EBPs** are and how to implement them
- Recommended at least **30 minutes per week of targeted instruction** related to goal
- **Can be implemented anywhere**- study skills/academic strategies courses, classroom settings, advisory periods, job sites, cafeteria, peer networks- generalization is goal

Let's practice

- What are the steps to your vocabulary assignment in English each week?
 - Let's type them out
 - Check them off when done!
- How could you use this in class?



Transition & Families Component

- Community and School Resource Mapping
- Transition Planning Process
- Student Involvement in the IEP
- Work Based Learning Experiences in preparation for postsecondary goals (college, careers, independent living)



Transition & Families Component

Transitioning Together (family component)

- Provide education and support for parents during the period of transition
- Emphasize positivity and problem solving
- Share relevant resources and referrals based on results of school and community mapping
- Individual family “joining session”, 8 multi-family weekly group sessions, and 8 sessions for teens.



Feedback from Parents

Do we have to quit meeting?

We will be doing things differently based on our experience in the group, especially working on the self help skills we never really gave him the opportunity to develop.

I enjoyed problem solving. Sometimes it's easy to forget the obvious solutions.

Our attitude changed. We didn't think our son could do a job and go to school-and he can do both.

How to measure fidelity of such a
comprehensive intervention with
many teachers at **many schools**
working with **many complex**
students?



It's complicated!

- Following recommendations of Dave Cordray and colleagues
 - *A Procedure for Assessing Intervention Fidelity in Experiments Testing Educational and Behavioral Interventions*, 2012
- As part of the model development, the CSESA team developed a multi-component fidelity tool including:
 - **Individual fidelity measures per component designed to:**
 - **Measure adherence, dosage, and quality of delivery for each component**
 - **Differentiate between CSESA and non-CSESA interventions**
- Process fidelity measure designed to:
 - Capture the larger CSESA process including professional development, assessment, planning, implementation, and outcomes

Individual fidelity measures

Moving from this....

Peer-Mediated Instruction and Intervention ---Implementation Checklist	
Student(s):	
Teacher:	
Start Time:	
Direction occur at least **If none	
Level 1: I	
EVENTS	
SVF 2	
SVF 1	
SVF 0	
SM 2	
SM 1	
Per. Taking	
Cog. Stat.	
Prompt	
Level 2: C	
EVENTS	
Turn Taking	
Emo Range	
Facial Ex.	
Speaker Bx	
Listener Bx	
Problem Id	
Prob. Solut.	
Other**	
Level 3: I	
EVENTS	
Introduction (rate after)	
Modeling (rate after)	
Practice	
Review (rate after)	
Default**	

Before you start:

Have you...

- Identified the behavior?
- Collected baseline data through direct observation?
- Established a goal or outcome that clearly states **when** the behavior will occur, **what** the target skill is, and **how** the team will know when the skill is mastered.

If the answer to any of these is "no", refer to the "Selecting EBPs" section on the website.

Peer Network Orientation Meeting Checklist

(to be completed by the facilitator after the orientation meeting)

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

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

- Y N Was the student present?
- Y N Were all of the network members in attendance? List names of partners who were present.

- Y N Did the partners and student introduce themselves and participate in introductory activities appropriately (if student is mostly nonverbal, did I introduce him or her to the group and give non-confidential background information)?

- Y N Did students talk about areas of shared interests? If so, what?

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

- Y N Did the group discuss ways to work toward the goals of the peer network?
- Y N Did I discuss the importance of confidentiality and respectful language with the group?
- Y N Did the group talk about when social interactions can occur?
- Y N Did I offer specific suggestions on ways to interact socially?
- Y N Did the group schedule regular meetings or discuss the date of the next meeting?

Individual fidelity measures

To this....

CSESA Fidelity
 Location: _____
 Academic (AAL)

Date: ____/____/____ Time: ____:____:____
 Staff ID: ____-____-____ Student ID(s): ____-____-____
☐ Modified Diploma (MD) ☐ Standard Diploma (SD)

Observer Initials: _____

Academic (AAL)						
AAL	Domain	Features	Notes			
Dosage						
1	Frequency	How often in the past two weeks has this student received this intervention/support? <i>Notes:</i>	Key: 3: 10+ times 2: 6-9 times 1: 1-5 times 0: 0 times	③	②	① ④
2	Amount	On average, how long were each of the sessions over the past 2 weeks? <i>Notes:</i>	Key: 3: 30+ minutes 2: 15-29 minutes 1: 1-14 minutes 0: 0 minutes	③	②	① ④
Preparation & Structure						
3	Text Selection and Access	<input type="checkbox"/> Selected text relates to student interests, student goals, social trends, or general curriculum <input type="checkbox"/> Text represents varied genres (e.g. stories, drama, poetry nonfiction, informational text) <input type="checkbox"/> Student can access text through varied adaptations, modifications, and/or technology use (e.g. adjust lexile, text-to-speech technology, visual supports, captions, summary)	What other texts do you use in these types of reading lessons?	③	②	① ④
4	Organization	<input type="checkbox"/> Organizes materials so easily accessible <input type="checkbox"/> Navigates through materials (paper or technology) fluently (brief between activity intervals) <input type="checkbox"/> Ensures student is in place and able to access/view materials		③	②	① ④
Process						
5	Vocabulary	<input type="checkbox"/> Lesson includes vocabulary instruction <input type="checkbox"/> Instructor introduces new vocabulary		③		① ④
6	Read Aloud	<input type="checkbox"/> Lesson includes read aloud (by student or teacher) <input type="checkbox"/> Instructor accurately read text (i.e., avoids omissions and substitutions of words) <input type="checkbox"/> Gains student's attention		③	②	① ④

 Ask staff member

Key: 3 (High): All features were observed
 2 (Mid): Half or more features were observed
 1 (Low): Less than half but at least 1 feature was observed
 0 (Not Observed): No features were observed

Individual fidelity measures: Format

- All fidelity measures on single metric (0-3)
 - Will allow to be collapsed as part of a broader implementation index score
- Common headings
 - Dosage
 - Preparation and Structure
 - Process
 - Strategies & Content
 - General Strategies
 - Evaluation & progress Monitoring
- Includes interview and observation items
- Collected 3x per initial semester of implementation
 - Ongoing checks for maintenance

CSESA Fidelity
Location: _____
Transition & Families (TT)

Date: ____/____/____ Time: ____:____:____ Observer Initials: _____
Staff ID: _____ OR Staff Name: _____
☐ Modified Diploma (MD) ☐ Standard Diploma (SD)

Transition and Families (Transitioning Together)									
TT	Domain	Features	Notes						
Dosage									
1	Frequency	How many parent education sessions will this family be offered over this school year? <i>Notes:</i>	Key: 3: 6 sessions 2: -- 1: -- 0: < 6 sessions	③					①
2	Amount	On average, how long were each of the sessions? <i>Notes:</i>	Key: 3: 90 minutes 2: 60-89 minutes 1: 30-59 minutes 0: >30 minutes	③	②	①			①
Preparation & Structure									
4	Group Structure	<input type="checkbox"/> Groups includes only families of students with ASD		③					①
5	Speakers	<input type="checkbox"/> Guest speakers arranged	<i>Who presents at the family sessions?</i>	③					①
6	Organization	<input type="checkbox"/> Materials/activities are organized for group session		③					①
Process									
7	Joining Sessions	<input type="checkbox"/> Conducts joining sessions with each family <input type="checkbox"/> Compiles goals from families	<i>Are families met with individually? What happens at these meetings?</i>	③				①	①
8	Group Sessions	<input type="checkbox"/> Conducts practice problem-solving session <input type="checkbox"/> Provides opportunity for dialogue among families		③				①	①
9	Lesson Structure	<input type="checkbox"/> Provides welcome and introduction <input type="checkbox"/> Facilitates warm-up questions and family updates <input type="checkbox"/> Introduces new topic <input type="checkbox"/> Follows up on concerns from family <input type="checkbox"/> Provides summaries of teen activities		③	②	①			①

 Ask staff member

Key: 3 (High): All features were observed
2 (Mid): Half or more features were observed
1 (Low): Less than half but at least 1 feature was observed
0 (Not Observed): No features were observed

Individual fidelity measures: How to use data?

- Initial use is to support the coaching process
 - Informs weekly coaching conversations with school staff
- Part of a larger index to can be examined in relationship to student outcomes (i.e. training log, coaching log, process elements)
- AND to discriminate between CSESA and Services as Usual sites
 - Help to describe what is happening in those high schools



Challenges & Solutions to Fidelity of Implementation



Challenge: **Time**

- For training & to learn the **strategies well** when staff have other pressing priorities



Solutions

- Hold training/coaching during breaks, after school, on Saturday & **provide food!**
- Gain support from administration – one Director of Special Education supplemented the CSESA pay of staff participating in Transitioning Together
- Offer to **pay for subs**
- Include paraprofessionals



Challenge: High School Schedules & Structures

- Students with ASD educated full time in general education have challenges such as including on work-based learning
- Planning meetings for training & coaching when **schedules change frequently** & **many special events** are part of the school culture



Solutions

- *Go with the flow* – use the special events to foster peer interaction, or to demonstrate general support for the school
- Work with administration to **place a class in the schedule** for SCI-H (social skills) or a focus on transition
- Look for ways to foster leadership skills for those diploma bound students in general education classes

Challenge:

No or Poor Data Collection skills

Lack of

- training
- knowledge
- experience

GAS Datasheet to gather baseline data on independence goals- CODY 2/20 Ind. B + verbal disk work

Goal - At the end of an assignment Cody will follow classroom procedures to either turn it in to the teacher or pass to a peer without individualized prompting or instructions (e.g. following the directions given to the class).

Date	When the assignment was finished, Cody...					Assignment description (e.g. math)
	Turned it in to teacher independently (v)	Turned it in to teacher with additional prompting (v)	Turned it in to peer independently (v)	Turned it in to peer with additional prompting (v)	Did not respond (v)	
2/20	✓	PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		set work at home
2/20	✓	PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		bowling paper
3/14	✓	PHYS VERBAL VISUAL	✓	PHYS VERBAL VISUAL		Am work
		PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		
		PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		
		PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		
		PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		
		PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		
		PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		
		PHYS VERBAL VISUAL		PHYS VERBAL VISUAL		

brought folder to teacher "He's in his head" Ind.

Solutions

- Recognize that **data collection is an elaborate skill** that needs practice & support
- **Provide data sheets & materials** – such as check lists or a MotivAider for self-management
- Encourage assistance from paraprofessionals or colleagues (School psychologist co-lead a SCI-H group & focused on the group contingency system)

Challenge:

Component not philosophically aligned with typical approach used or fidelity in general is not a shared value

- For example, SCI-H uses a scripted lesson with a token system based on principles of behavior analysis
- Teachers want to make the intervention their own

Solutions

- Focus on aspects of intervention they are comfortable using
- Share success stories
- **Provide research examples on the importance of fidelity**
- **Identify aspects of component that can be made their own or individualized**

Challenge: Tendency to revert to previous practice or use part of an intervention

- Use **non-evidence-based practices** for PRISM
- Hold Peer Network session but not meet with peers separately
- Leave off the homework sessions in SCI-H or not include the group contingency system
- Stop reviewing new vocabulary at the start of the AAL session

Solutions

- Extra coaching
- Recognize & Reward
- Provide Praise & Encouragement



Fri 2/12/2016 4:46 PM

Hume, Kara Anne

Nice work Apex! Community & School Resource Map is finished!