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# The SSSC: A New Multi-Informant Assessment for High School Students with Autism Spectrum Disorder

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**CSESA**

The Center on Secondary Education for  
Students with Autism Spectrum Disorders

# Overview

- Background of ASD and postsecondary transition outcomes
- Secondary School Success Checklist (SSSC) Development & Design
  - Three informants: Adolescents with ASD, Parents/Caregivers, & Teachers/School Staff
- Findings
- Implications for Practice & Research



# Background

- Individuals with autism spectrum disorder have poor postsecondary outcomes compared to their peers without disabilities
  - High rates of unemployment and underemployment
  - Continued difficulties in adaptive behavior and social relationships

(Henninger & Taylor, 2012; Howlin et al., 2004; Shattuck et al., 2012; Roux et al., 2013)



# Background

- National survey data suggest after high school, young adults with ASD:
  - 80% still live at home
  - 50% have no employment
  - 21% never engage in outside activities
  - Experience a decrease in insurance coverage and therapy services

(Shattuck et al., 2012; Shattuck et al., 2011; Wagner, Cameto, & Newman, 2003)



# Background

- Individuals with Disabilities Education Improvement Act (IDEA)
  - Requires transition planning for all students with disabilities by **age 14**
  - Focus on developing goals around activities such as: employment, recreation, postsecondary education, self-determination, and community living and participation after graduation



# Transition Planning

- Student involvement in transition planning is associated with more optimal transition outcomes
  - (e.g., student participation in IEP meetings and training in self-determination and advocacy)
- However, students with ASD *rarely* have a leadership role in the transition planning process

(Test et al., 2009; Shogren & Plotner, 2012)





# Transition Planning with Students

- Little research has been conducted to understand students' perspectives of their own transition skills, goals, and learning priorities as a guide to their transition planning



# Study Aims

1. Determine the level of transition-related skills of adolescents with ASD as reported by adolescents, their parents and their teachers
2. Describe the perceived importance of each skill across informant groups
3. Examine relationship between the perceptions of skill proficiencies across informant groups





# Development of the Secondary School Success Checklist (SSSC)

- Developed to
  - Gather information from key stakeholders, *including adolescents across the spectrum*, on their current skill level in transition-related domains (e.g., independence, self-management, social interaction),
  - Rank priorities for goal setting, thus actively contributing to the transition planning process.



# SSSC as a Transition Assessment Tool

- Addresses limitations of existing transition assessment tools
- Designed specifically to identify skills relevant for adolescents with ASD across multiple domains, includes prioritization of skills, allows for multiple informants
- Easily accessible at no cost



# Center on Secondary Education for Students with ASD (CSESA)

- Larger ongoing research project examining the efficacy of a comprehensive treatment model for high school students on the autism spectrum)
- 60 high schools across three states (NC, CA, and WI) were randomly assigned to the intervention (CSESA) or control group



# CSESA

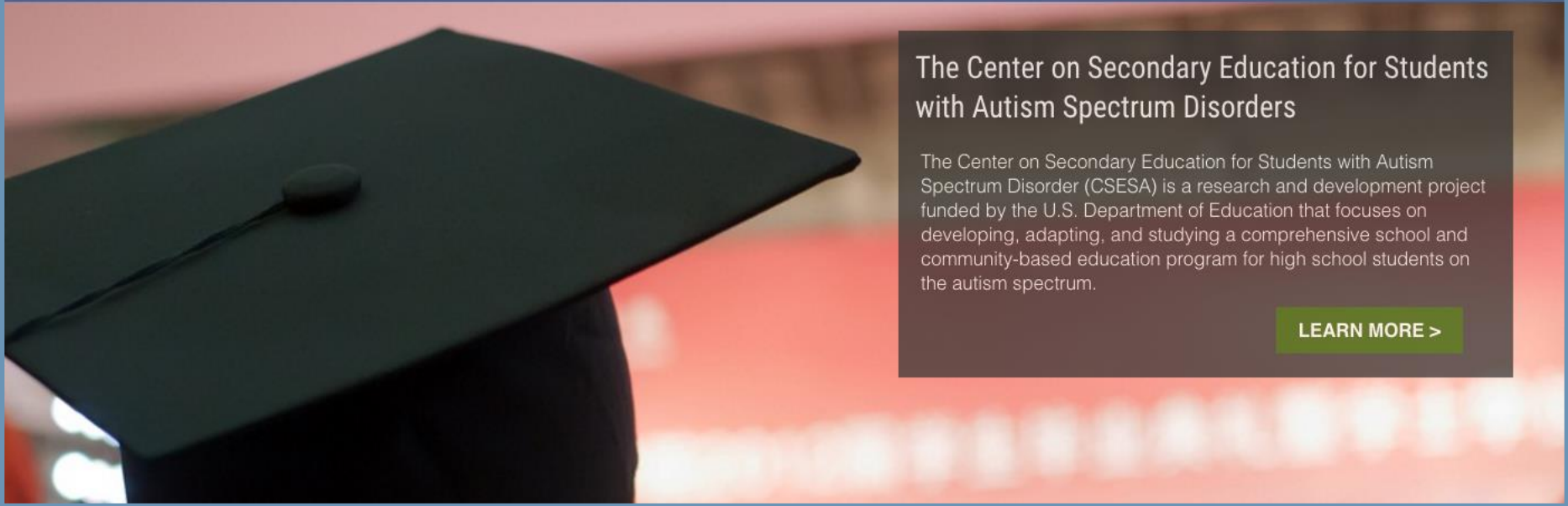


ABOUT THE CENTER

RESEARCH

RESOURCES

MATERIALS

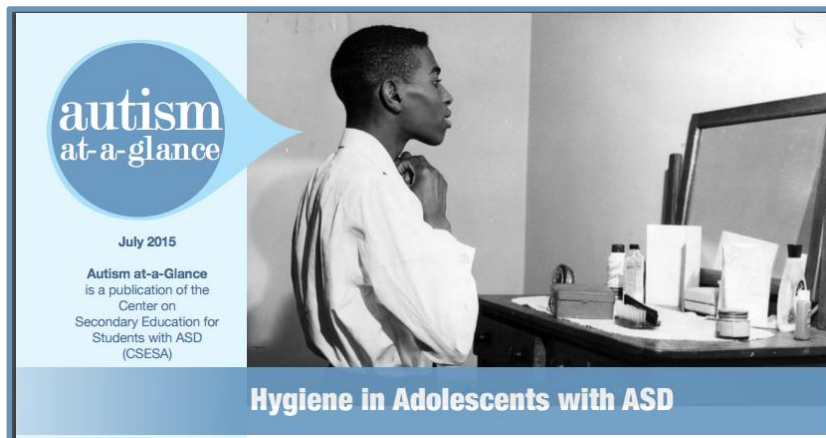


<http://csesa.fpg.unc.edu/>



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# CSESA Resources: Autism At-A-Glance

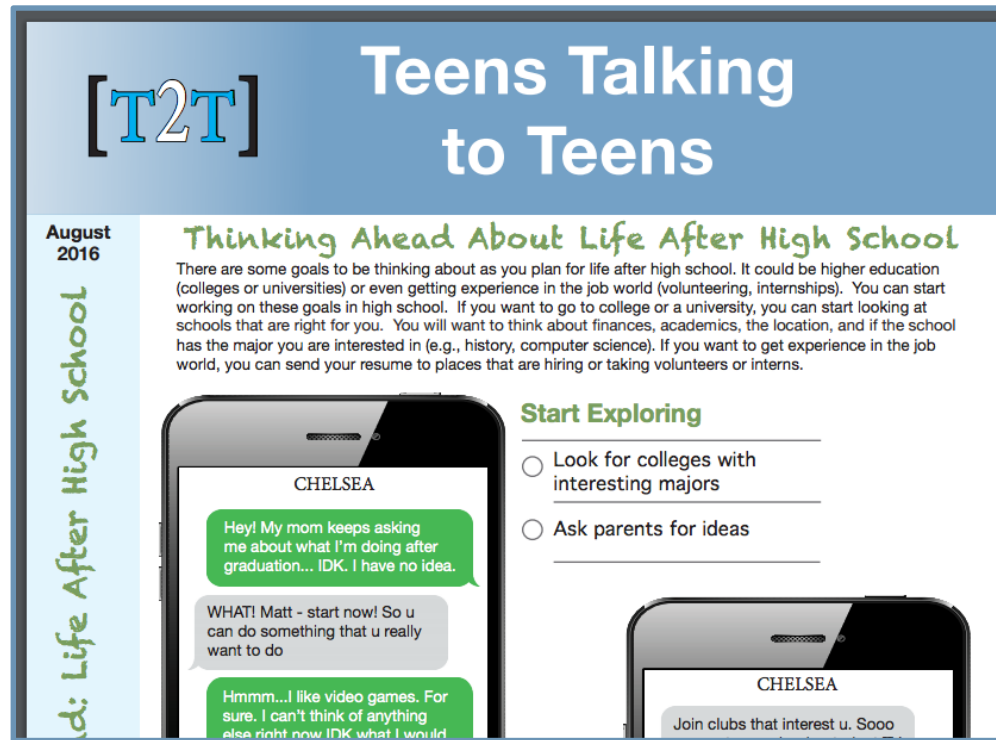


<http://csefa.fpg.unc.edu/>



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# CSESA Resources: Teens Talking to Teens



The graphic is a promotional poster for the 'Teens Talking to Teens' (T2T) resource. At the top, it features the 'T2T' logo in a stylized font and the title 'Teens Talking to Teens' in large, bold letters. Below the title, the date 'August 2016' is displayed. A vertical banner on the left side reads 'd: Life After High School'. The main content area is titled 'Thinking Ahead About Life After High School' and contains a paragraph of text about planning for life after high school. To the right of this text is a section titled 'Start Exploring' with two bullet points: 'Look for colleges with interesting majors' and 'Ask parents for ideas'. Below the text, there are two smartphone screens. The left screen shows a text conversation with 'CHELSEA' discussing life after graduation. The right screen shows a text conversation with 'CHELSEA' suggesting to join clubs.

**[T2T]** Teens Talking to Teens

August 2016

*d: Life After High School*

**Thinking Ahead About Life After High School**

There are some goals to be thinking about as you plan for life after high school. It could be higher education (colleges or universities) or even getting experience in the job world (volunteering, internships). You can start working on these goals in high school. If you want to go to college or a university, you can start looking at schools that are right for you. You will want to think about finances, academics, the location, and if the school has the major you are interested in (e.g., history, computer science). If you want to get experience in the job world, you can send your resume to places that are hiring or taking volunteers or interns.

**Start Exploring**

- ☐ Look for colleges with interesting majors
- ☐ Ask parents for ideas

**CHELSEA**

Hey! My mom keeps asking me about what I'm doing after graduation... IDK. I have no idea.

WHAT! Matt - start now! So u can do something that u really want to do

Hmmm...I like video games. For sure. I can't think of anything else right now IDK what I would

**CHELSEA**

Join clubs that interest u. Sooo

<http://csefa.fpg.unc.edu/>



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# Demographics: Adolescents

	N = 530	%
Student Race		
White	362	67
Black	68	13
Asian	25	5
American Indian	17	3
Multi/Biracial	35	6
Other	23	4





# Demographics: Adolescents

	N	%
Student Gender		
Male	464	86
Female	75	14
Diploma Type	<i>(From Cohort 1)</i>	
Standard Diploma	162	58.3
Modified Diploma	116	41.7
Student Age	M 16.1	Range 13.6-20.9




# SSSC: Parent & Teacher Version

- 105 items
- 4 key domains: independent behavior, transition, social, and academic
- Likert-type scale, if behavior was
  - 0 = not like student
  - 1 = like student
  - 2 = much like student
- Priority ranking



# Example SSSC Form for Parent & Teacher

 <b>Domain: Independence and Behavior</b>		
<b>Subdomain: Organization</b>		
<b>Skill Evaluation</b>		<b>Priority Ranking</b>
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 1 2 N/O N/A 0=not like student 2=much like student	<b>O1. Accesses and follows daily schedule</b> <i>Note: Format &amp; length may vary based on student needs (e.g. written, objects, pictures, iPad); student refers to it throughout day</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 1 2 0=no concern 2=major concern
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 1 2 N/O N/A	<b>O2. Uses tools to keep track of assignments/work tasks and/or scheduling</b> <i>Note: Format may vary (e.g. planner, calendar, technology, putting information in backpack)</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 1 2
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 1 2 N/O N/A	<b>O3. Brings appropriate materials to assigned location</b> <i>Note: Includes bringing home and turning in homework, bringing supplies to school or community setting</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 1 2




# SSSC: Student Version

- 20 items: linked to key items on the teacher and parent versions
- Read aloud by the assessor to answer with the student
- Likert-type scale
  - 2 = “very much like me”
  - 1 = “sort of like me”
  - 0 = “not like me”
- Priority ranking



# Example SSSC Form for Student

Skill	This is <u>NOT</u> like me.	This is <u>sort of</u> like me.	This is <u>very much</u> like me.	I have <u>not</u> had a <u>chance</u> to try this.	<u>Not sure</u>	I would <u>NOT</u> like to learn this.	I would <u>sort of</u> like to learn this.	I <u>really want</u> to learn this.	I <u>already know how to do this</u> .
 1. Read each skill:	2. Choose only <u>one</u> answer in the grey boxes that best describes you <u>today</u> .					3. Then choose <u>one</u> answer in the white boxes that best describes how much you want to learn the skill.			
1. I keep track of my homework and turn it in on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I bring everything I need to my classes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I ask teachers for help if I need it during class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# SSSC Design & Development

- Iterative process with feedback from stakeholder groups, including focus groups
  - Examine need and satisfaction with questions
  - Measure instrument reliability
- Appropriateness of item group for the scale examined through internal consistency with Cronbach's alpha coefficients



# Skill Ratings on SSSC Items

Item	Adolescent Estimate	Parent Estimate	Teacher Estimate
Independence: Bring materials to class	1.66	1.21	1.35
Transition: Look clean for school	1.71	1.41	1.67
Follow rules	1.70	1.54	1.51
Navigate high school campus	1.72	1.66	1.72





# Skill Ratings on SSSC Items: Parent

Item	Estimate	Domain
Bring materials to class	1.21	Independence
Ask teachers for help	1.23	Transition
Look clean for school	1.41	Transition
Follow rules	1.54	Transition
Navigate high school campus	1.66	Transition



# Skill Ratings on SSSC Items: Teacher

Item	Estimate	Domain
Bring materials to class	1.35	Independence
Respond appropriately to changes in schedule and routine	1.33	Independence
Look clean for school	1.67	Transition
Follow rules	1.51	Transition
Navigate high school campus	1.72	Transition



# Skill Ratings on SSSC Items: Adolescent

Item	Estimate	Domain
Bring materials to class	1.66	Independence
Look clean for school	1.71	Transition
Follow rules	1.70	Transition
Navigate high school campus	1.72	Transition
Listen to others during interactions	1.54	Social
Compliment others	1.54	Social



# Areas of Priority: All 3 Respondents

SSSC item rated highest priority of learning	Adolescent %	Parent %	Teacher %
Complete assignments	85.0	95.5	88.5
Ask teachers for clarifying information	85.3	94.1	91.3



# Areas of Priority: Parent

<b>SSSC item rated as a priority of learning</b>	<b>Percentage</b>	<b>Skill Domain</b>
Complete assignments	95.5	Independent Behavior
Keep trying during hard task	94.1	Independent Behavior
Ask teachers for help	94.7	Transition
Listen to others during interactions	97.2	Social
Ask teachers for clarifying information	94.1	Social



# Areas of Priority: Teacher

<b>SSSC item rated as a priority of learning</b>	<b>Percentage</b>	<b>Skill Domain</b>
Complete assignments	88.5	Independent Behavior
Keep trying during hard task	91.3	Independent Behavior
Ask teachers for help	91.3	Transition
Listen to others during interactions	89.2	Social
Ask teachers for clarifying information	91.3	Social



# Areas of Priority: Adolescent

<b>SSSC item rated as a priority of learning</b>	<b>Percentage</b>	<b>Skill Domain</b>
Complete assignments	85.0	Independent Behavior
Solve problems in class	87.0	Transition
Have ideas about goals after high school	88.7	Transition
Ask teachers for clarifying information	85.3	Social
Understand reading for content areas	88.7	Academic





# Study Findings

- Adolescents rated themselves as higher skilled on SSSC
- Significant differences across groups
  - Some agreement in the ranking of highest and lowest rated skills across all three groups
  - Adolescents had lower percentages marked as priority, however, lowest was close to 70%
  - Parents most likely to rate skills as a priority for learning



# Perspectives on Transition Planning

- Discrepant findings are not surprising
  - Previous studies have identified discrepancies between parent-, self-, and teacher-reports
- Skills areas and settings may be less familiar to teachers/parents given the settings they see the adolescent
- Different perceptions of performance
  - (e.g., comparison between students, siblings)

(Lerner et al., 2012; Stratis & Lecavalier, 2014; McMahon & Solomon, 2015; Rankin, Weber, Kang, & Lerner, 2015)



# Support to IDEA & Indicator 13

- Prioritization of the involvement of adolescents and their families in the transition planning process
- Discrepancies provide insight into the diverse perceptions of student strengths, needs, preferences, and learning priorities

(Shogren & Plotner, 2012)



# Including Student Report

- Research indicates that adolescents with ASD are less likely than other students in any other disability group to be involved
- Historical view discounts ability of adolescents with ASD to provide meaningful self-report of skills
- Individuals with ASD are able to report on their own quality of life and skills in a valid and reliable manner

(Shogren & Plotner, 2012; Barnhill et al., 2000; Shipman, Sheldrick, & Perrin, 2011)



# IEP Goal Writing

- Most common IEP goals for adolescents with ASD target six primary domains:
  - Communication, Self-help, Motor/sensory, Social, Academic, Behavior
- Does not reflect highest priority goals identified by respondents:
  - Identifying goals related to life after high school, problem solving, trying during hard tasks, and completing assignments



# Intervention

- Adolescents did not choose their lowest rated skills as their highest priority skills
  - Three of the lowest rated skills were also the lowest rated priorities: responding appropriately to change, offering help to others, and working well in a group
- Suggests that selecting deficit areas related to ASD as intervention targets may not be the most motivating start for intervention



# Postsecondary Outcomes

- Potential to impact postsecondary outcomes by:
  - Including skills that have been linked to improving high school and postsecondary outcomes
  - Increasing likelihood that skills identified as predictors (e.g., employment, education, independent living) will be targets for intervention
  - Facilitating an opportunity for adolescents and parents to participate in the transition planning process





# Limitations

- Created for larger CSESA study and not previously validated
- Relies exclusively on informant report
  - No direct observation of the skills to validate the adolescent-, parent-, or teacher-report
- Study did not include a group of adolescents with typical development to assess expected rate of skill attainment across the SSSC's domains



# Future Research

- Additional psychometric analyses will be helpful
- Will be collected again two years after its initial completion from each respondent group
  - Allow for examination of skill changes over time
- Need for further examination of skill identification and importance ratings across subgroups of adolescents with ASD (e.g., ID)





Version of SSSC available online:

<http://cseesa.fpg.unc.edu/>

Questions? Contact Tara Regan: [teregan@live.unc.edu](mailto:teregan@live.unc.edu)



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