



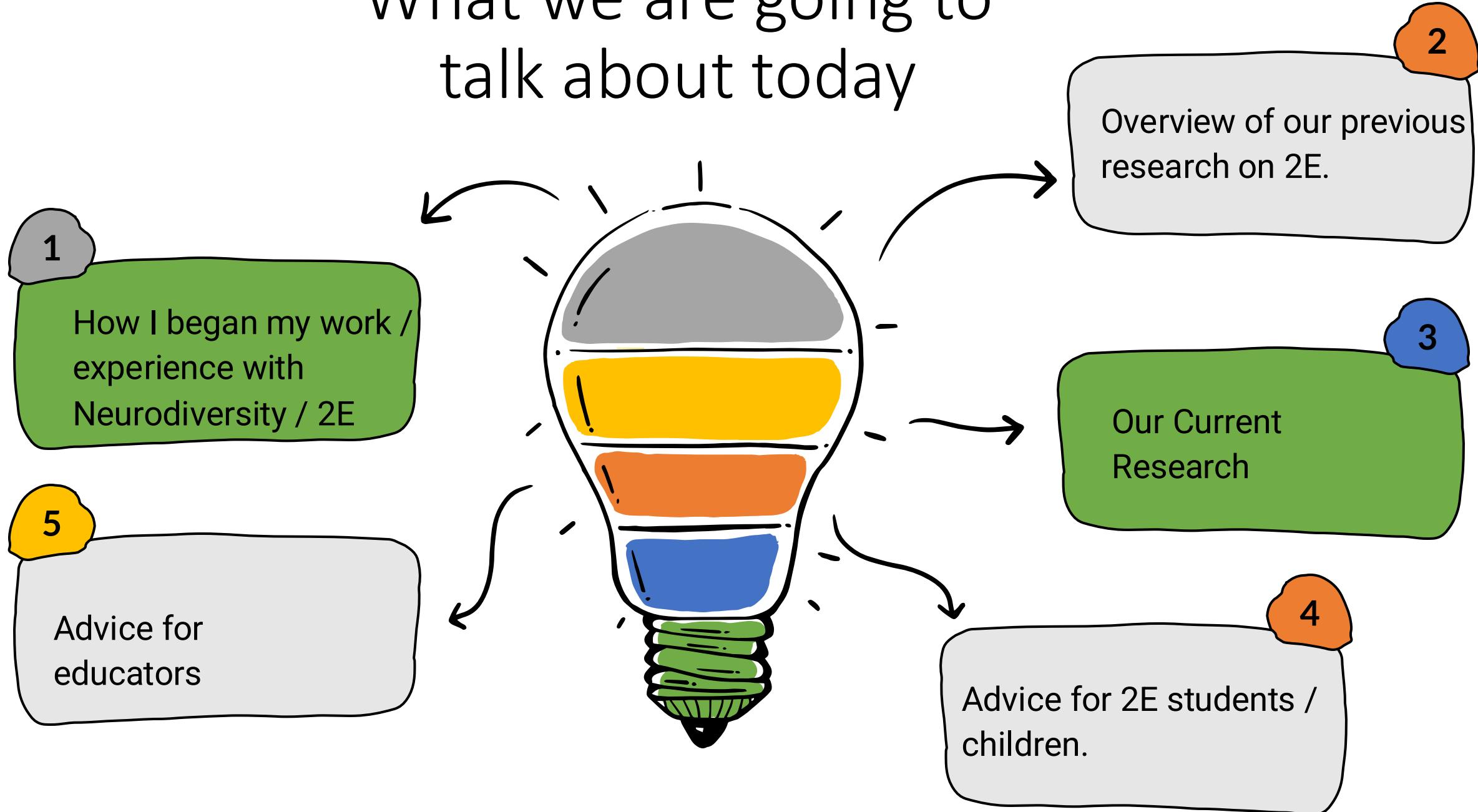
# Using Strength-Based Pedagogy to Engage and Challenge 2e Students' Development: Current Research and Personal Journeys

Sally Reis

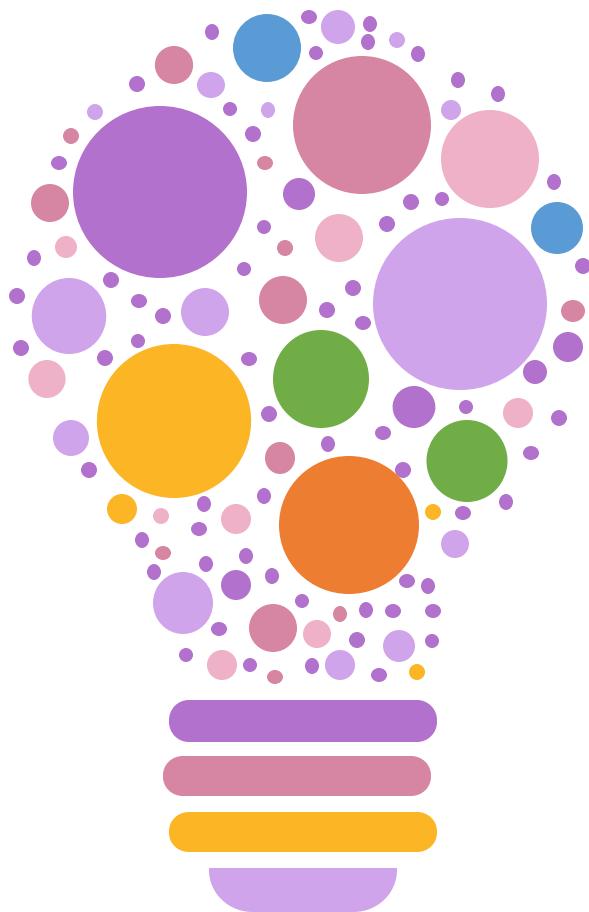
Renzulli Center

Neag School of Education  
University of Connecticut

# What we are going to talk about today



# How I began this journey



- Calls to our UConn GT center
- Friendship with Sue Baum
- LD university program in our dept
- Personal knowledge of many smart students with neurodiversity
- And then, our daughter Sara

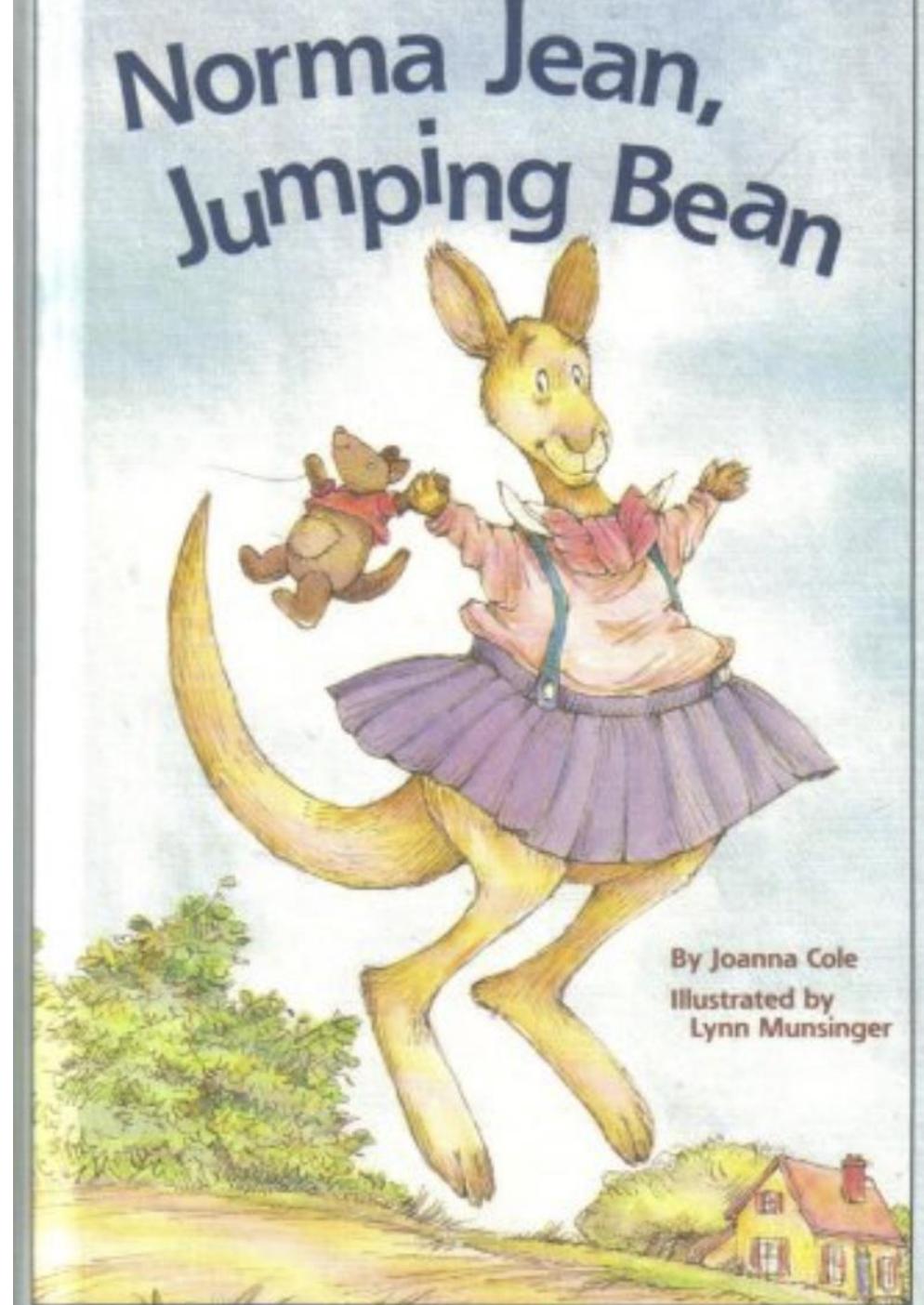
# Sara's personal 2E journey



- Anxiety, fear, misunderstandings
- All of the teacher discussions and IEP meetings! Why didn't we know what to ask?
- Stop telling us what she can't do and start telling us what she can do.
- Who is the most passionate teacher at this school?
- What are Sara's interests/strengths?

# Sara's 2E beginnings

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# Sara's academic 2E journey

## Sara's adolescent years



Middle school

Special education experiences

Peer support

High School

Removed from all honors classes, becoming depressed, worried, anxious, and feeling she was not good at anything..

We had to completely change course--

## Sara's college and after journey



- Did not utilize academic accommodations. She very much wanted to prove that she could be successful “on my own.”
- Grades were not initially strong.
- In graduate school, learned more about disabilities, and became interested in the social and emotional journey of students with disabilities. She found other people with stories similar to her own.

# Where is she now?

- Completed master's degree & doctorate
- Worked as a counselor at UConn Athletics for 5 years
- Professional counselor
- Professor--School Counseling
- One of a small number of faculty members nationally that identifies as neurodiverse





Overview of pertinent, previous 2E research

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# Who are 2E students?

- Twice-exceptional learners are students who demonstrate the potential for high achievement or creative productivity in one or more domains such as math, science, technology, the social arts, the visual, spatial, or performing arts or other areas of human productivity AND who manifest one or more disabilities as defined by federal or state eligibility criteria (Reis et al., 2014, p. 222).

# Talents in Two places: Case Studies of High Ability Students with Learning Disabilities in a Competitive University

## We studied:

- self-perceived academic strengths and weaknesses;
- specific educational intervention and assistance necessary to succeed in an academic environment;
- types of counseling/support strategies necessary to help realize their potential



# Difficulties Encountered and Social and Emotional Challenges—Previous Research

## Late Identification as having a learning disability

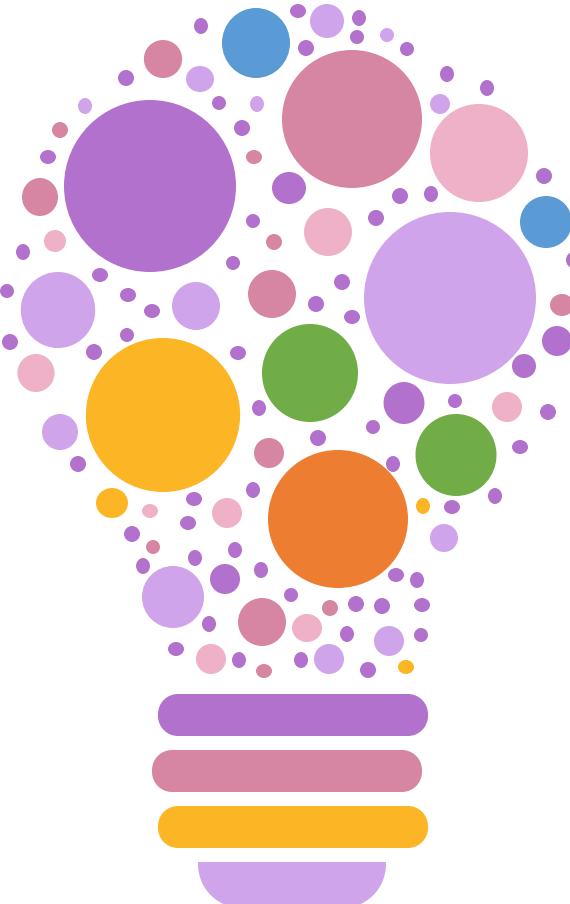


In our previous 2E studies...



- Parent advocates were a primary reason that gifted students with learning disabilities are able to succeed in school—they never gave up and knew, intrinsically, that their children had strengths and talents, even when all educators refused to see them.

# Our previous research..



- Neurodiverse students more often receive services focusing on remedial intervention
- Effective teaching should find a balance between developing students' academic strengths and interests and helping them compensate for their learning differences
- Extra-curricular activities can be extremely beneficial
- The use of enrichment and strength-based strategies enhance learning and healthy social and emotional development

# Current Research: What is Project 2E- ASD?

**2eASD/GT**  
TWICE EXCEPTIONAL  
Autism Spectrum Disorder

**UCONN**  
UNIVERSITY OF CONNECTICUT



<https://giftedasd.project.uconn.edu>

# Our Research Team



<https://giftedasd.project.uconn.edu>

# Project Twice Exceptional with Autism Spectrum Disorder (2E-ASD)



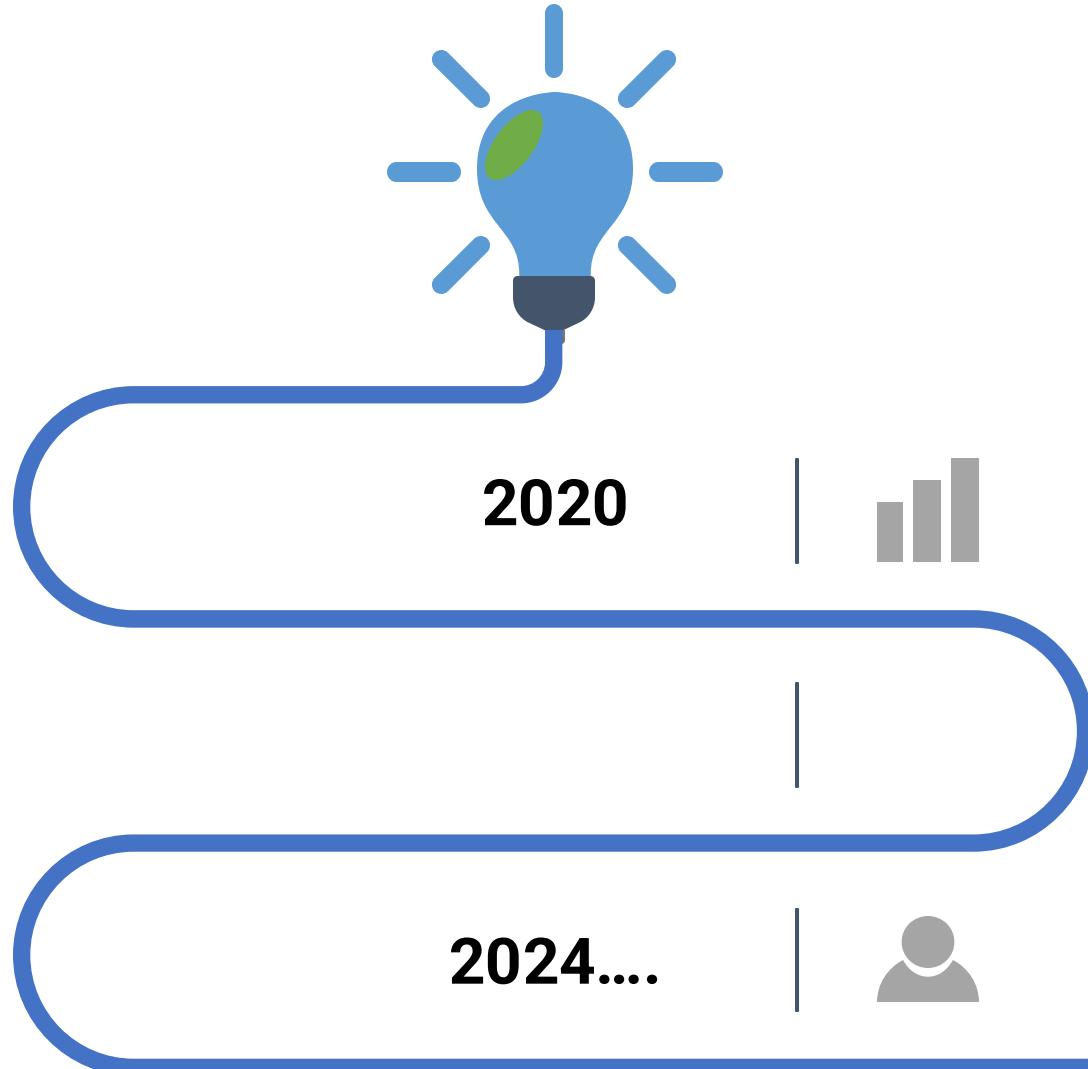
U.S Department of Education, Jacob K. Javits Gifted and Talented Students Education Program. Award amount: \$2,587,924.



Project 2E-ASD focuses on how to identify and teach academically talented and high ability high school students with ASD.

Can you give me some advice on my college bound 2e/ASD student? Where should she go? Should she start at a smaller college? Have you conducted any research about this group? How can I help her?

# Why study this population?



In 2020, the CDC reported increasing numbers (1 in 54 children) are diagnosed with Autism Spectrum Disorder (ASD).

Little educational research exists on smart kids with ASD, especially related to effective instruction....

# Competitive colleges..

- Students with ASD currently **enroll at lower rates than their peers** with all other types of disabilities (Gelbar et al., 2015; Shattuck et al., 2012; Wei et al., 2016)
- They **leave college programs prior to completion at higher rates than their peers** (White, Ollendick, & Bray, 2011).
- Low rate of college participation has **significant economic and personal costs** for youth with ASD, their families, and society (Wei et al., 2016)

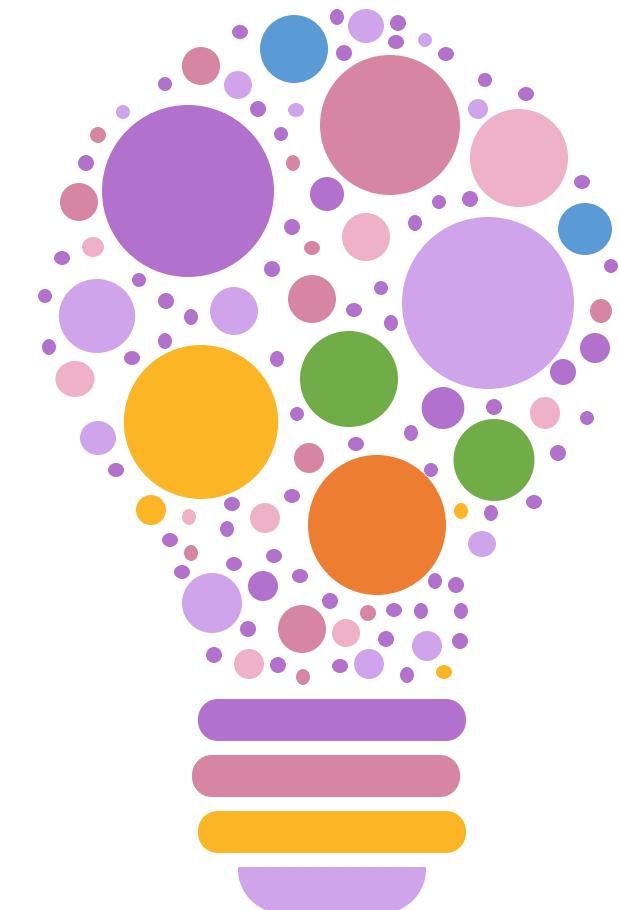


Recent Research:  
Study 1- Online Survey of 147 Disability Providers

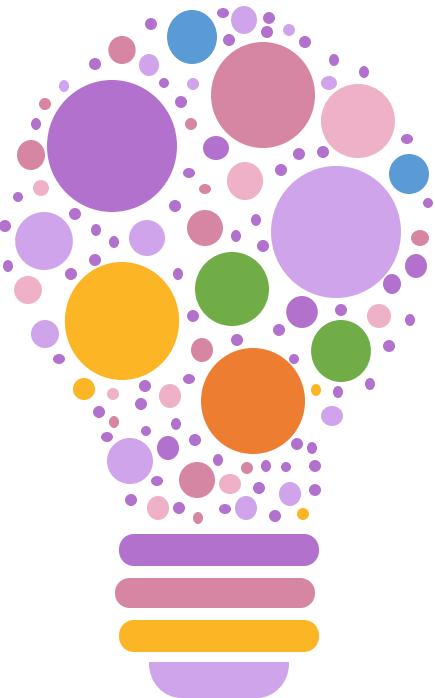
Key Findings: What do neurodiverse  
students need most?

**Executive function (especially  
learning/study strategies and time  
management)**

- Social adaptability
- Self-determination/self-advocacy  
skills
- Self-awareness

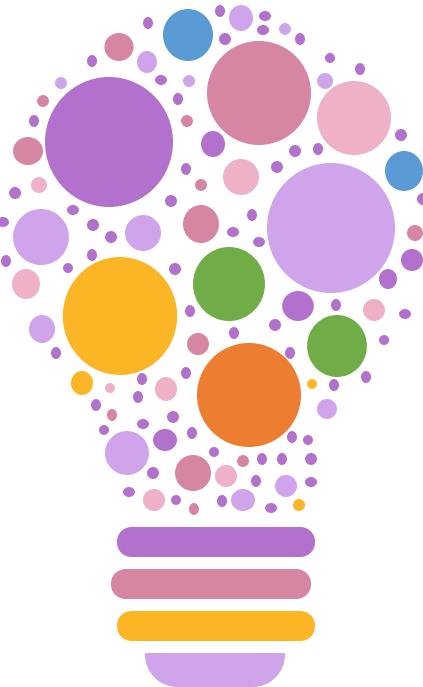


Disability providers have found, in their work with this population...

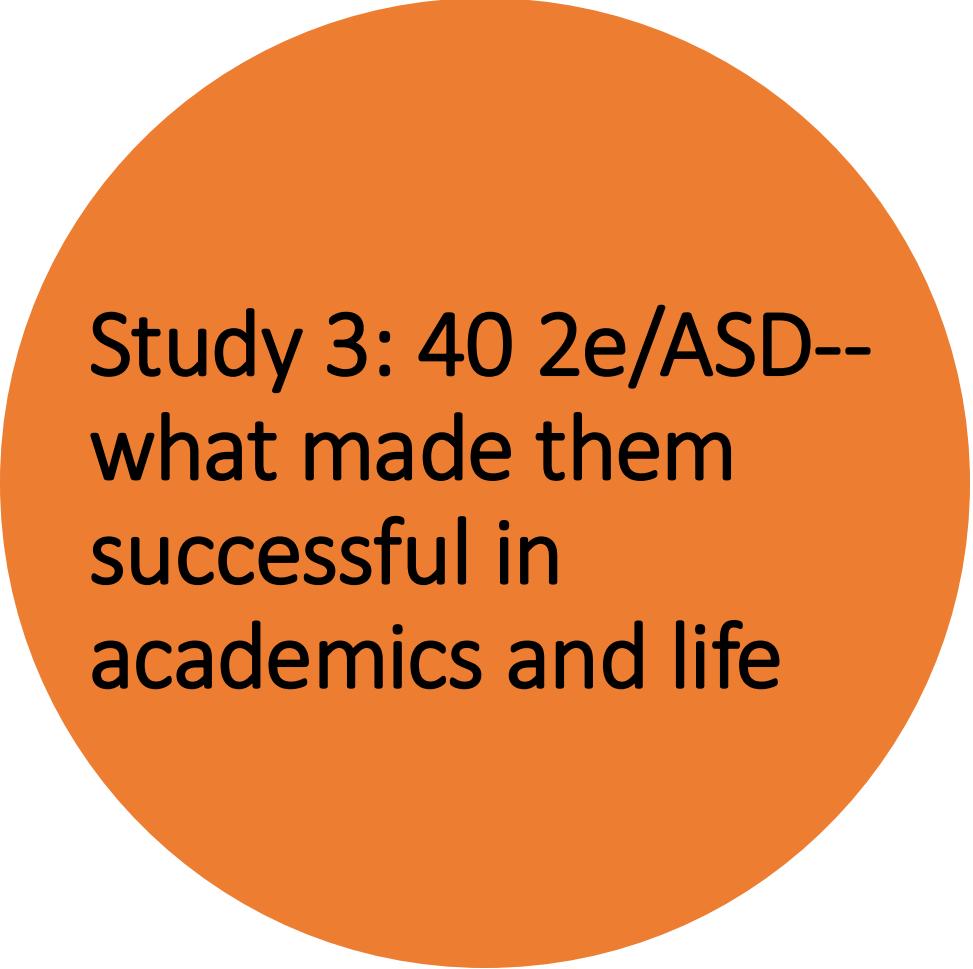


- Students with ASD experience:
  - anxiety (91.2%)
  - social isolation (85%)
  - loneliness (81.4%)
  - depression (62.8%)

# Study 2- Service Provider Interviews believe the following factors facilitate the success of university students with ASD



- Self-determination/self-advocacy skills
- “Touch points” or contacts with an advocate or mentor on campus
- Involvement in clubs/social based activities
- Executive function (including learning/study strategies and time management; understanding projects and expectations)
- Social interactions - especially in regard to group/team projects; interacting with instructors



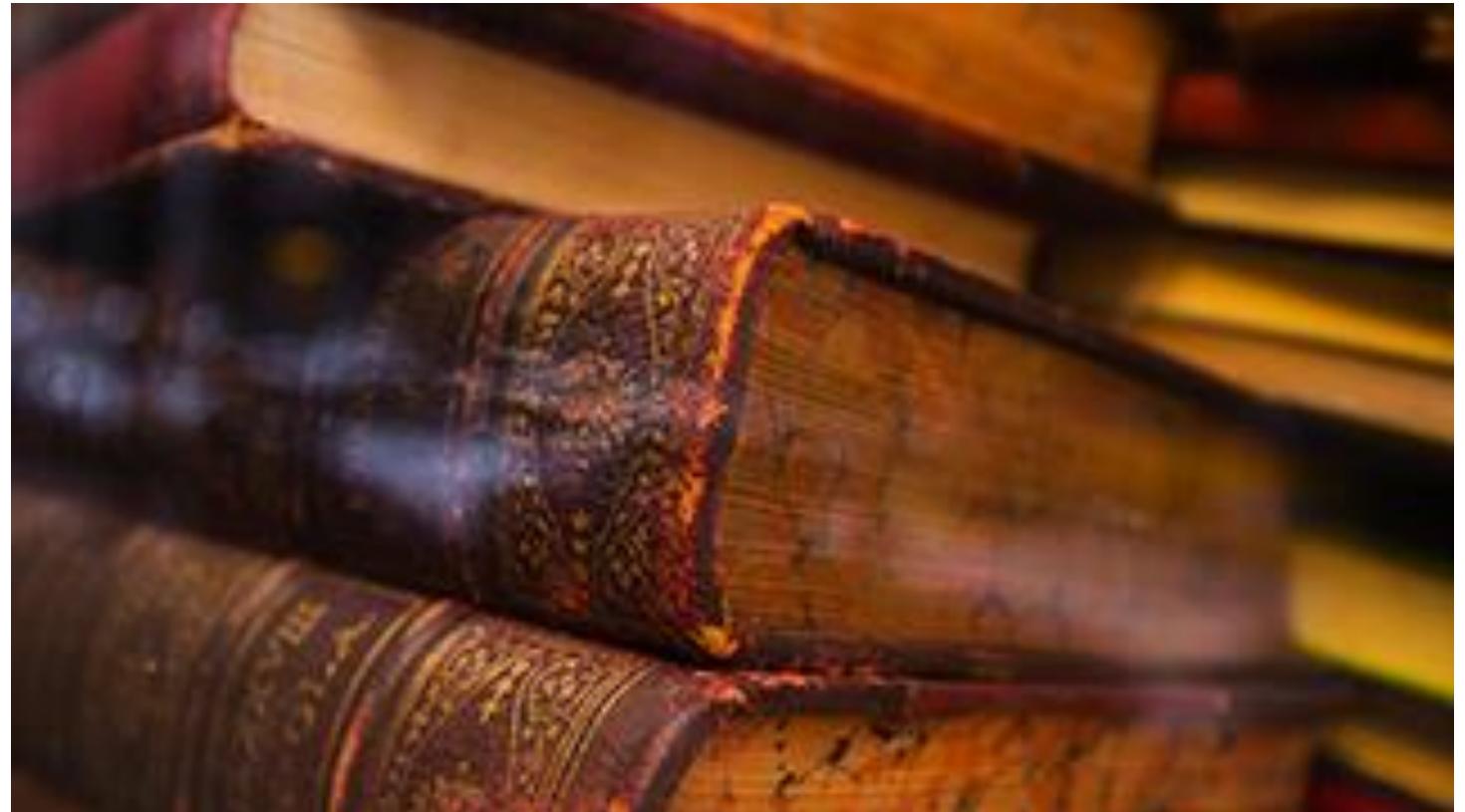
## Study 3: 40 2e/ASD-- what made them successful in academics and life

- The participants were primarily male, with 27 (68%) stating they identified as male, nine (23%) indicating they identified as female, and four (10%) stating they identified as non-binary or transgender
- 18 % were culturally and linguistically diverse and 43% attended a community college or another college before transferring to their final college.

# Some of the Colleges and Universities

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- NYU
- UConn
- Cornell
- USC
- Cal Arts
- BU
- BC
- Drexel



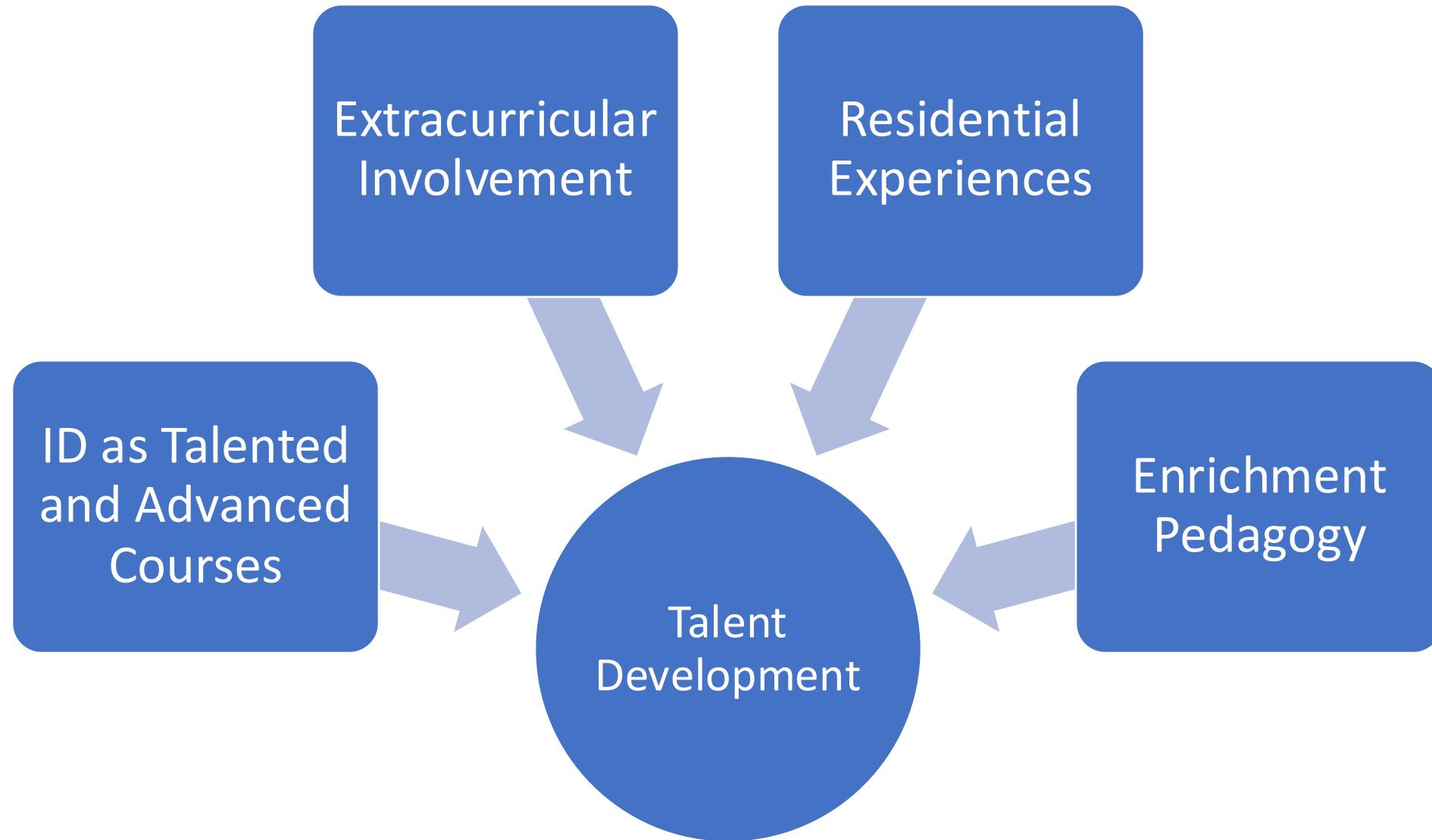
# Successful 2e/ASD College Student Interviews

## Findings include:

- A majority of our participants (n=21; 53%) received enrichment and/or talent development opportunities and were identified as having talents/strengths.
- 90% of the sample (n=36) participated in at least one extracurricular activity in high school and 50% (n=20) had participated in at least one residential (camp or enrichment) experience.
- Almost three quarters of participants took AP or honors courses (or courses in which they could earn college credit) while in high school (n=29, 73%).



Talents can be developed in these students in high school...





and what to do if one was  
coming, how to head one off.

# Which Extracurricular Activities Worked Best?

## Many trials and changes...

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Molly explained:

Robotics team—I loved that as I struggled a lot socially growing up but in robotics, I liked having a team. It made me feel good about myself... I was part of the women's science club. I founded a girls who code club. I was a math tutor. I am a STEM nerd.

Dylan explained:

Tennis, documentary film, senator for senior year, mock trial, band, and choir. Every year we make a film for a competition, there's a topic, we made one about education declining because there are funding problems in my town. I did it for two years.



- All participants explained that having self-awareness, self-advocacy, and time management/organization skills were essential to their success
- Seventeen participants (43%) indicated that they attended a community college, smaller regional campus, or another college before transferring to their current/final college.
- When faced with challenges, difficulties, or adverse conditions, rather than give up, these participants found a reasonable path, figured out how to cope, compensate, or pursue a new direction.

Pamela recently graduated from a competitive college and completed her MS degree



- Most participants' academic talents were formally recognized by their teachers and parents.
- Half were identified as being academically talented in elementary or secondary school.
- Most knew that they had academic talents and strengths and found teachers who supported them.

# Enrichment Pedagogy

Developed by researchers and educators whose classrooms and practices have served as laboratories for enrichment and innovations that have subsequently become mainstays of our field.





and I said to them, I want to  
find a good liberal arts school.

# Study 4-Interviews with secondary high school teachers, counselors, and special ed teachers.

- Most teachers had never reflected on what they do with their 2e/ASD students
- Very few had clear ideas about what works well.
- High school teachers and counselors explained that they have so many different types of learners, all with different interests and motivations. One Jason, simply explained, “I learned that I had to treat each student differently.”

**FEW HAD KNOWLEDGE OF BEST PRACTICE OR WHAT WORKS WELL—**



# Students with disabilities: It's not just about their deficits!

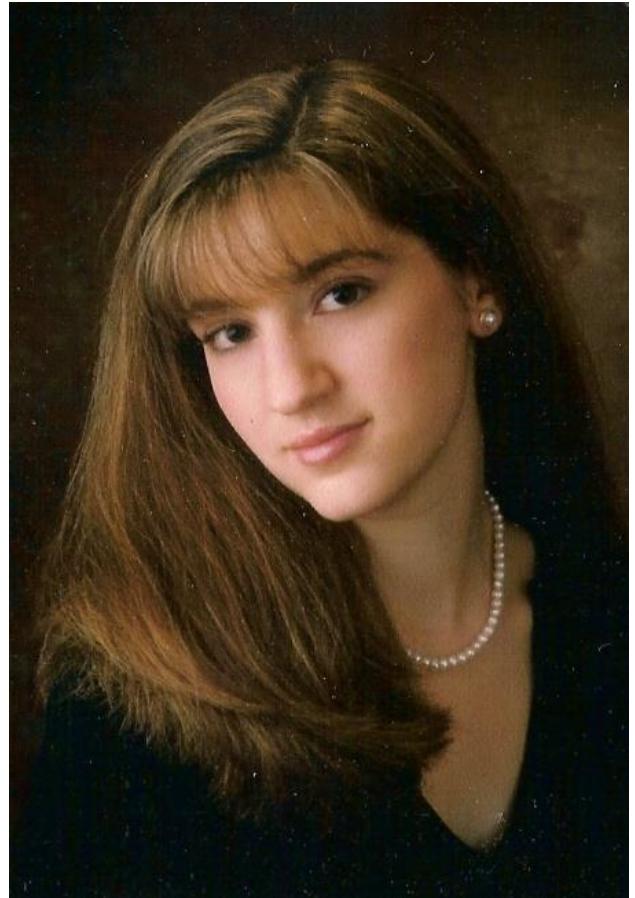


Why does the deficit always lead the conversation?

Why can't we give more school-based enrichment and opportunities

Why, for so many educators and people, does disability still equals **not smart**?

Even with our educational background, we were not helping our 2e daughter—we initially focused on the wrong areas and concerns:



School experiences can result in students becoming depressed, worried, anxious, and feeling worthless

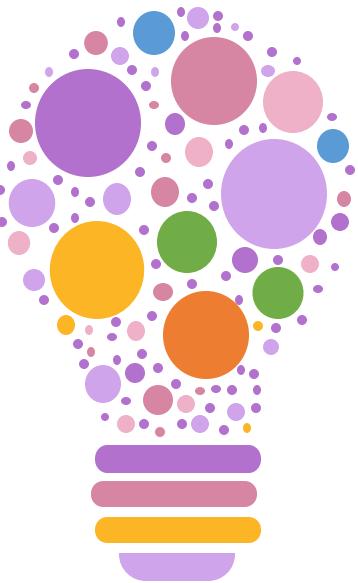


# ENRICHMENT and Strength-based PEDAGOGY

- Strength-based Instruction
- Critical/Creative Thinking & Problem Solving
- Creative Productivity
- Independent Study
- Depth and Complexity
- Small Group Advanced Explorations
- Differentiated Instruction Targeted to Needs
- Adjusting and Embracing Affective Differences
- Support for Social Emotional Needs and Development
- High level Questioning Skills
- Embracing Challenge and Supported Struggle
- Openness to the Arts as well as Academic Opportunities

# Current research: Our summer program

- Implemented an on-line summer program for 22 2e/ASD high school students who completed an advanced university class and attended strength-based workshops about their talents, and the application process for competitive colleges
- 19/22 completed the college course
- Students were universally positive about the experience
  - They enjoyed the advanced content of the classes and the workshops
  - We are currently conducting surveys and in-depth interviews to learn about their high school experiences and transition plans



# Social issues and feeling alone

Some of our participants did not initially make friends at college and felt lonely, explaining that “I’m super isolated on campus. A lot of times I don’t even know what to do and a lot of times I’ll procrastinate.”

Others described the effort that being social required and explained their feelings:

“Sometimes I eat alone, but other times, I eat with a friend. It depends if anyone’s available or not. Sometimes I do want to be alone, best I can describe is that I have a social battery and then I need to recharge and fill it up by being alone. It’s something my mom is still getting used to. I don’t feel lonely.”

On-line friendships really made a positive difference.



# Have at least one strength based IEP or 504 goal



Participate in one or two honors classes in areas of interest



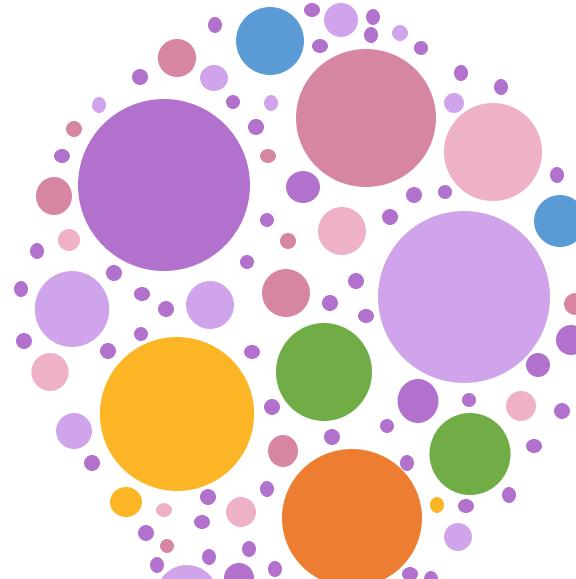
Substitute tests for projects in the students strength / interest area



Participate in one school-sponsored extracurricular activity in areas of interest



Identify one teacher mentor in academic and meet with her monthly program



Assume a leadership role in one extracurricular activity



Enroll in a local community college class, or online college class in areas of strength and interest



Make curricular modifications / substitutions/ independent studies in students area of interests



Provide time to participate in emotional / social support groups facilitated by school counselor or social workers

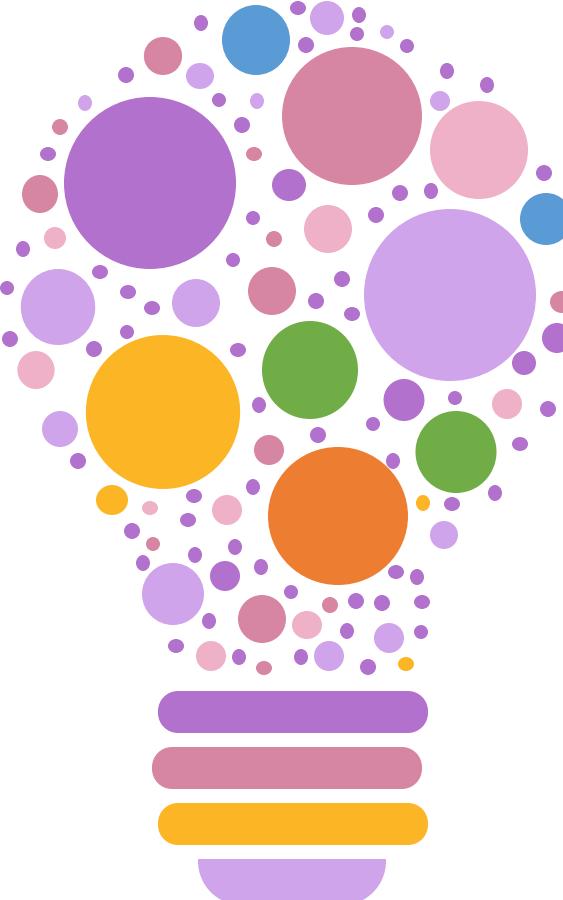
# Free Professional Development

- **The Professional Learning Video Module Series**

Informed by the research studies. Includes five parts:

- Part 1: Introduction (6:42)
- Part 2: Elementary and High School Experiences (12:44)
- Part 3: Preparing for Academic Success (13:35)
- Part 4: Navigating College Life (13:43)
- Part 5: Summary (6:15)

- Free of charge at <https://giftedasd.project.uconn.edu/>



# Our research suggests...

- Identification of talents and strengths are critical
- Neurodiverse students more often receive services focusing on remedial intervention
- Effective teaching should focus on finding a balance between developing students' academic strengths and interests and applying compensatory strategies for their learning differences in areas of interest
- Advanced classes and extra-curricular activities can be extremely beneficial
- The use of enrichment and strength-based strategies enhance learning and healthy social and emotional development

It is important  
to understand  
which teaching  
and counseling  
strategies work  
well-  
with these  
populations.



## Implications--

1. Identify talents and strengths, as well as deficits
2. Participate in interest-based extra-curricular activities
3. Enroll in advanced/honors classes to challenge and learn self-regulation strategies
4. Pursue interest-based advanced projects in areas of interests.
5. Learn time management and self-regulatory skills (keep a schedule, attend class on time)
6. Develop social awareness of strengths and deficits; apply strategies to create interpersonal connections
7. Participate in residential programs (as early as possible).
8. Create appropriate social connections—Learn from errors; what works and what does not

Schools should be places for talent development and all students should have opportunities and time to develop their talents.

The role of talent development:  
Teachers should  
Become  
opportunity  
makers



# Have at least one strength-based IEP or 504 goal



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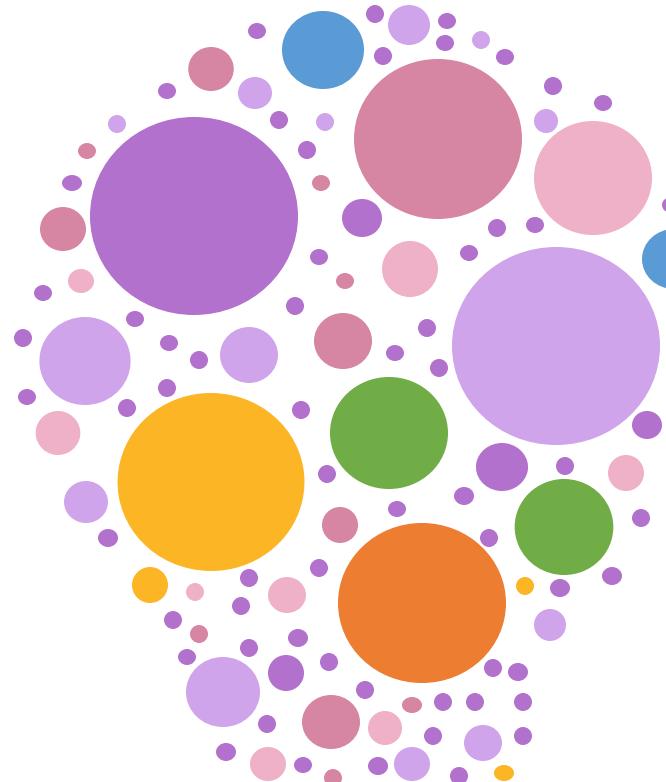
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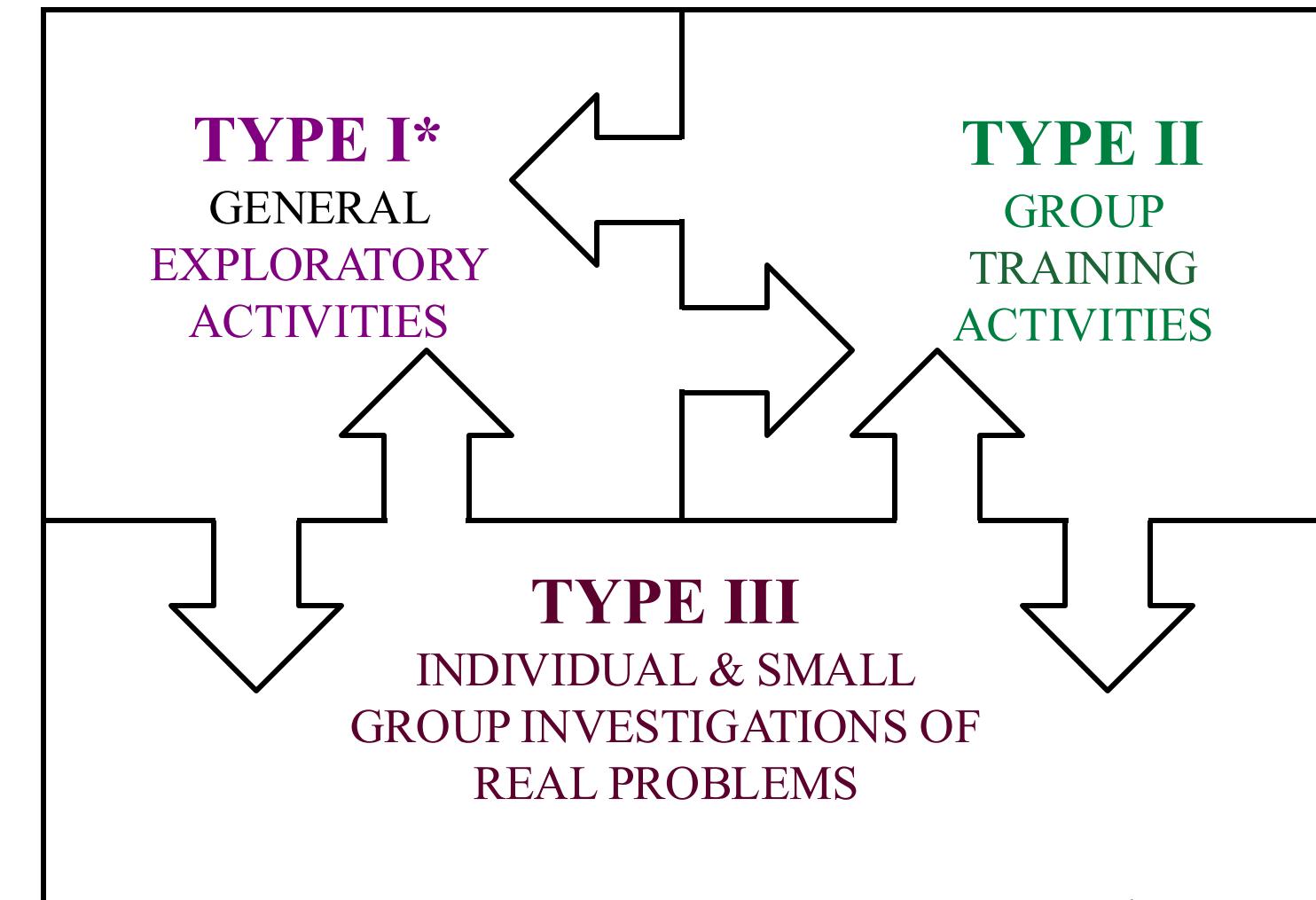


Make curricular modifications / substitutions/ independent studies in students area of interests



Provide time to participate in emotional / social support groups facilitated by school counselor or social workers





Regular  
Classroom

Environment  
in General



# Advice for educators/parents from our recent research:

**Many 2E students will NOT be identified in traditional school settings.**

**Let home/classroom be safe spaces**

**Not all compensation strategies work or are appropriate for 2E students**

**Find support for 2E students**

**Identify interests and talents proactively**

**Focus on strengths**

# Goals of Compacting

---

- Create a challenging learning environment in the classroom and the enrichment program for all children!
- Define objectives and guarantee proficiency in basic curriculum.
- Find time for alternative learning activities based on advanced content **and** individual student interest.



# Curriculum Modification For High Achieving Students

<b>Individual Educational Programming Guide</b> <b>The Compactor</b>			Prepared by Joseph S. Renzulli Linda M. Smith
Name: _____	Age: _____	Teacher(s): _____	Individual Conference Dates and Persons Participating In Planning of IEP
School: _____	Grade: _____	Parent(s): _____	_____
<b>Curriculum Areas to Be Considered for Compacting</b> Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.	<b>Procedures for Compacting Basic Material</b> Describe activities that will be used to guarantee proficiency in basic curricular areas.	<b>Acceleration and/or Enrichment Activities</b> Describe activities that will be used to provide advanced-level learning experiences in each area of the regular curriculum.	
<i>Name It</i>			
<i>Prove It</i>			
<i>Change It</i>			
<input type="checkbox"/> Check here if additional information is recorded on the reverse side.			

# Enrichment Clusters – What Are They?

***Enrichment Clusters are non-graded groups of students who share common interests and come together during specially designed time blocks to pursue these interests.***

***The main rationale for participation in one or more clusters is that students and teachers want to be there.***



# ENRICHMENT CLUSTERS



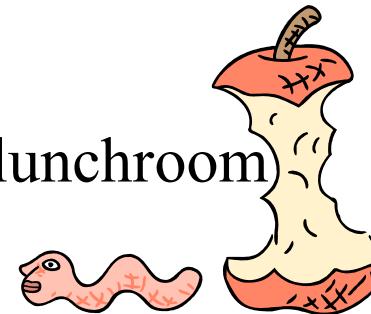
- Every Friday
- Student Choice
- Active Learning
- Group Size = 12 to 26 students
- Teacher as facilitator or coach

The “*Water Watchers*” are investigating and writing a proposal to incorporate drought-resistant plantings for the campus landscape.



# Save Our Planet

- Would you like to become a “Dumpsite Detective” and uncover ways to reuse our trash?
- Would you like to see worms at work reducing our lunchroom garbage?



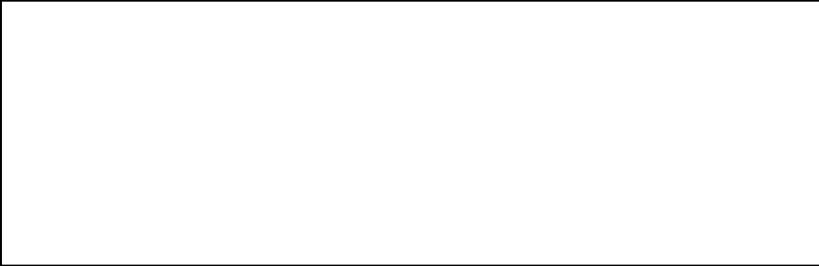
Join **The Recyclers** and become an expert in converting trash into treasures!

**Be a Mother Nature Super Hero and Save the World!**

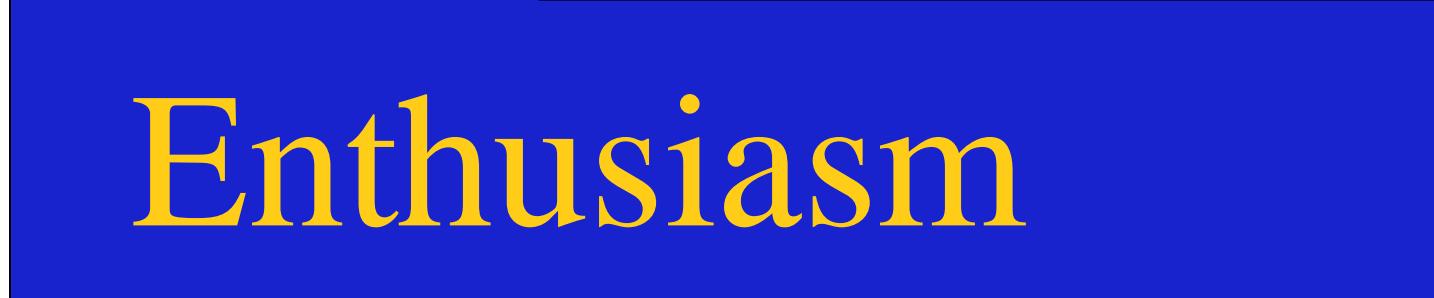
# Enjoyment



# Engagement



# Enthusiasm



# Advice for Teachers: A Toolkit for 2E Students

Susan Baum and Sally Reis

- Understand 2E students' profiles of strengths and deficits
- Show your 2E students that you care about them—make sure that they feel safe, respected, and valued (even liked if it is authentic)
- Shift your teaching practices away from a deficit-focus to a strength-based, talent focused approach, by:
  - Organizing learning opportunities in ways that fit their academic and needs (unique brain wiring) (if a student needs to move to learn, let them move)
  - Providing options for creative work that enable students to choose how they can communicate what they have learned
  - Finding ways to help your 2E students access the curriculum in ways that align to their strengths and interests, while avoiding a complete focus on problematic weaknesses (if they can't take notes, give them the notes).
- Provide talent development opportunities to develop interests and talents and let your students enjoy part of each day doing these.

# STUDENT PORTFOLIO

## 1ST GRADING PERIOD PORTFOLIO

Dear parents,  
I am enclosing a "grading portfolio" for the first grading period. This portfolio is a collection of 12 pieces of work that I have done in school. It includes my first drawing, my first writing assignment, and my first math assignment. I have also included a drawing of my car, a drawing of my house, and a drawing of my family. I hope you will enjoy this portfolio and see how much I have learned and grown in the first grading period.

With love from my parents,  
[Signature]  
[Signature]

1. My first drawing  
2. My first writing assignment  
3. My first math assignment  
4. My first drawing of my car  
5. My first drawing of my house  
6. My first drawing of my family  
7. My first drawing of my parents  
8. My first drawing of my dog  
9. My first drawing of my cat  
10. My first drawing of my brother  
11. My first drawing of my sister  
12. My first drawing of my brother and sister

## My Time Capsule Sheet 1

Name: [Redacted] Date: [Redacted] Month: [Redacted]

1. My favorite toy is [Redacted]  
2. My favorite food is [Redacted]  
3. My favorite game is [Redacted]  
4. My favorite book is [Redacted]  
5. My favorite movie is [Redacted]  
6. My favorite color is [Redacted]  
7. My favorite animal is [Redacted]  
8. My favorite place to go is [Redacted]  
9. My favorite hobby is [Redacted]  
10. My favorite sport is [Redacted]

My drawing of my car is [Redacted]  
My drawing of my house is [Redacted]

50 x 263

# Advice for the elementary / middle school years

- Find a non-academic hobby/extracurricular activity Have conversations about learning differences
- Advocate for academic modifications that align with your strengths and interests
- Learn how to use the compensation strategies, assistive technologies, and different techniques to enhance your own learning that work for you
- Find a safe haven/place in school
- Develop an interest/find a strength





## High School

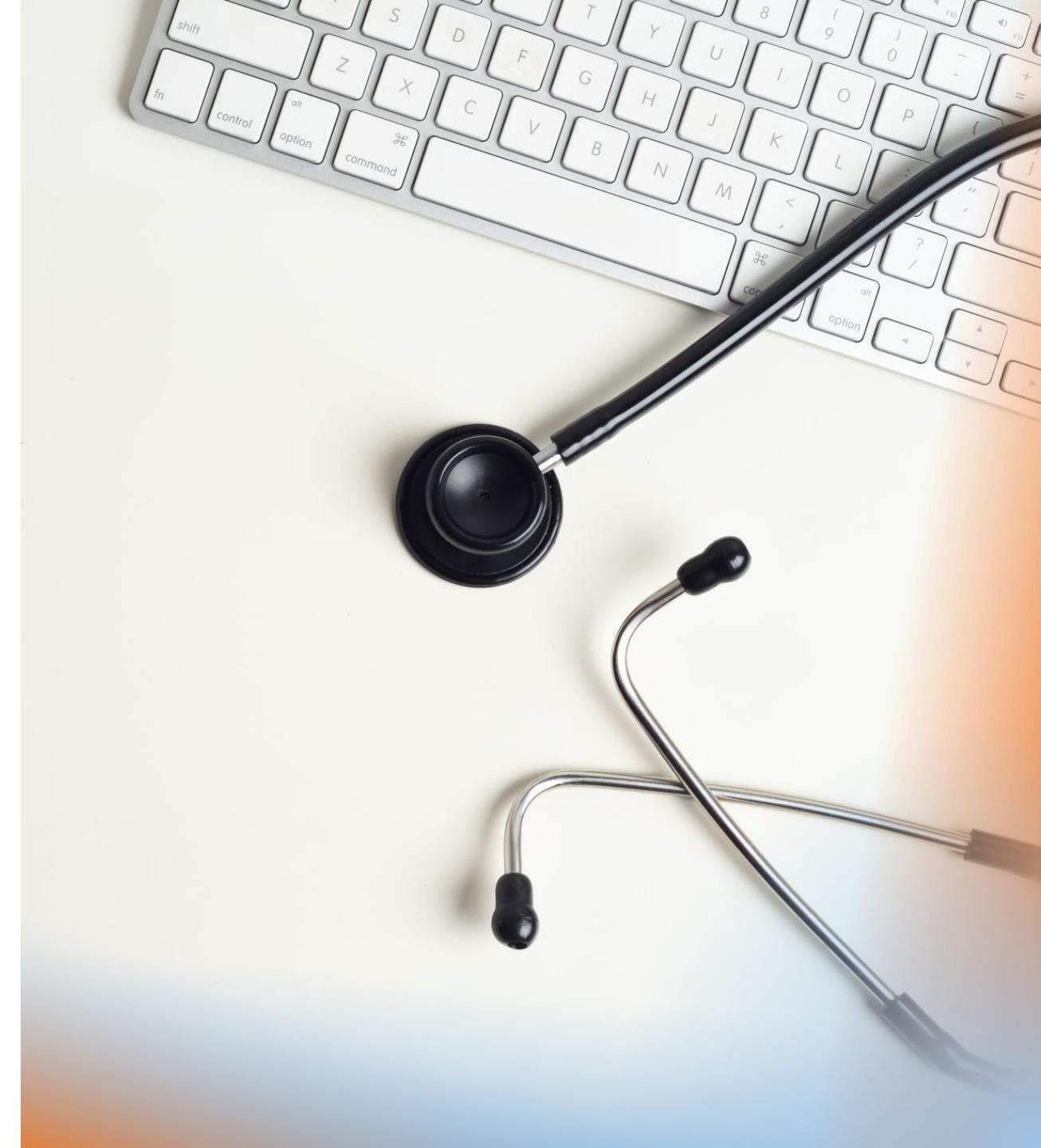
- Have a transition plan entering high school – make sure you learn how to utilize accommodations
- Advocate to be assigned to teachers that work well with students with learning differences
- Have in school or out of school non-academic activities
- Let your own voice, needs, concerns and ideas be heard
- Start all meetings with a positive update from all teachers present
- Discuss post-secondary goals early in high school career and plan accordingly

Hartford Public Schools' Renzulli Gifted and Talented Academy recently earned Category 1 School of Distinction in Connecticut, based on the Connecticut Next Generation Accountability System (NGAR), using 12 indicators to evaluate how well schools prepare students for success in college, careers, and life. **Not only did the school make substantial progress from academic years 2022-23 to 2023-24, but Renzulli is now the first HPS school to ever achieve Category 1 status!**



# College

- Ensure the student is aware of change in legal status, and what that means for accommodations
- When visiting / touring colleges visit the disability services center and ask to speak with one of the staff members about what accommodations are available and how students use them.
- Do not assume that the usual first year courses / advice is the right plan of action for the students
- Look into waiver / adjustments of general education courses that may be appropriate based on documentation (this is also something to ask about when you meet with the disability service center).



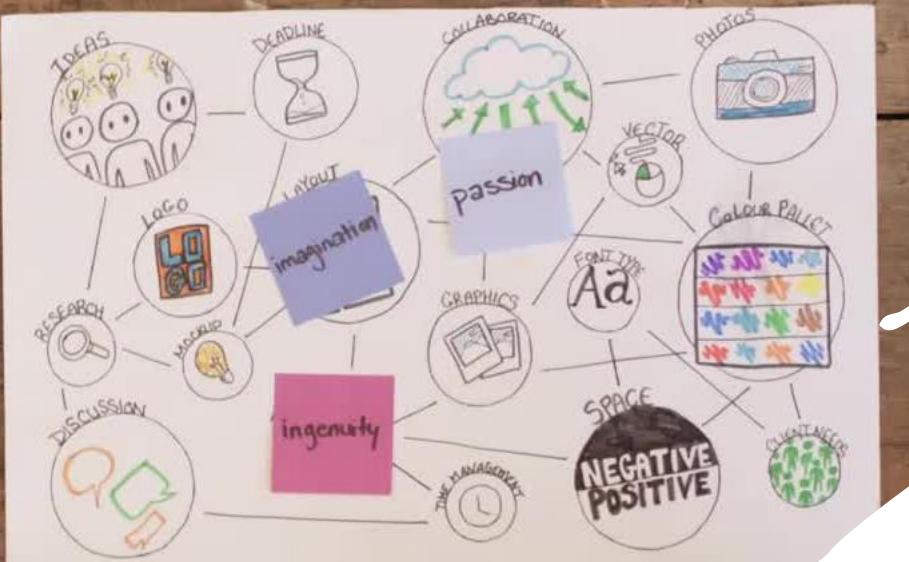
In particular

- Utilize the resources at the school:
  - Academic Advisors
  - Career Center
  - Disability Services Center
  - Tutoring resources



# Definitions

- **Talent-focused:**  
Opportunities to explore students' talents within and outside of the curriculum
- **Talent development:**  
Helping students identify their talents and abilities and find opportunities to develop them



# *How do we develop generous and good talents?*



The role of talent development:

Learn how to become an opportunity maker

<https://giftedasd.project.uconn.edu/video-modules/>

