



Mentoring Students with Autism Spectrum Disorders in Research (and Life)!



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Responsible Conduct of Research Workshop
Saturday, February 24, 2018

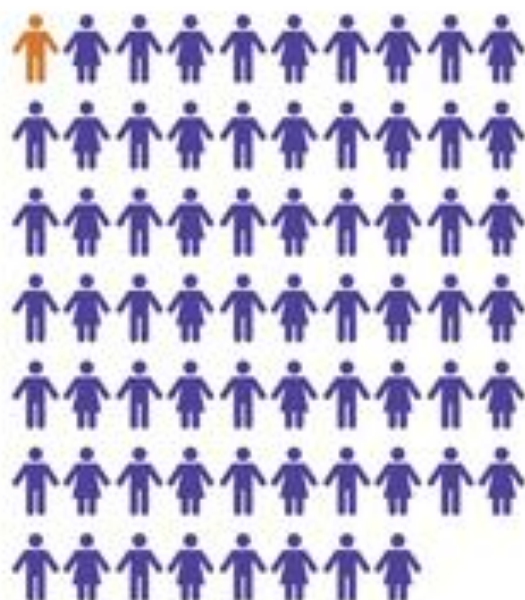
Agenda

- Students with ASD in College
- Characteristics
- ASD and the Brain
- Strategies and Supports
- Resources



Students with ASD in College

NUMBER OF CHILDREN IDENTIFIED WITH ASD

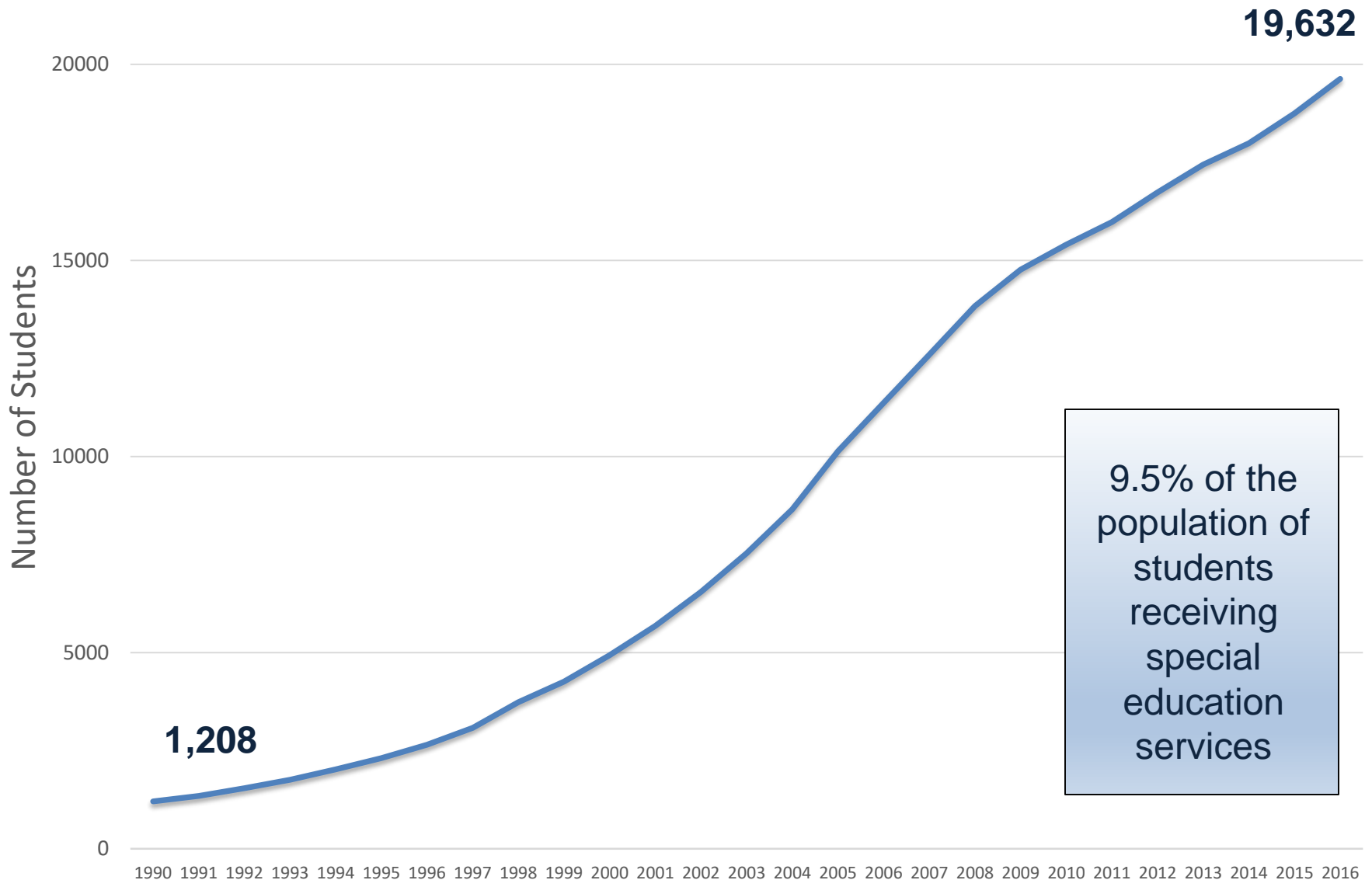


1 in 68



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

Michigan K-12 Students with an ASD Eligibility



How does this affect us?

**Increasing numbers of students
with ASD**

**Improved identification and
supports for K-12 students with ASD**



**Increasing numbers of young adults with
diagnosed ASD are coming to college**



Not all disabilities
look like this



Some disabilities
look like this

“Because students with ASD appear normal and may have obvious talents and abilities, faculty and other students may easily become frustrated by behaviors inherent to the disability. This can lead to social ostracism and ultimately adversely affect learning”

Camarena & Sarigiani, 2009, p. 117

Disclosure of ASD



Has the
diagnosis,
discloses



Has the
diagnosis,
does not
disclose



Does not have
the formal
diagnosis, may
not be aware

What we can do...

Increase awareness

Use ASD-friendly supports and strategies

Connect with resources

Characteristics of ASD

DSM IV (1994-2013)
PERVASIVE DEVELOPMENTAL DISORDERS

Autistic
Disorder

Asperger

PDD-NOS

Rett's
Disorder

CDD



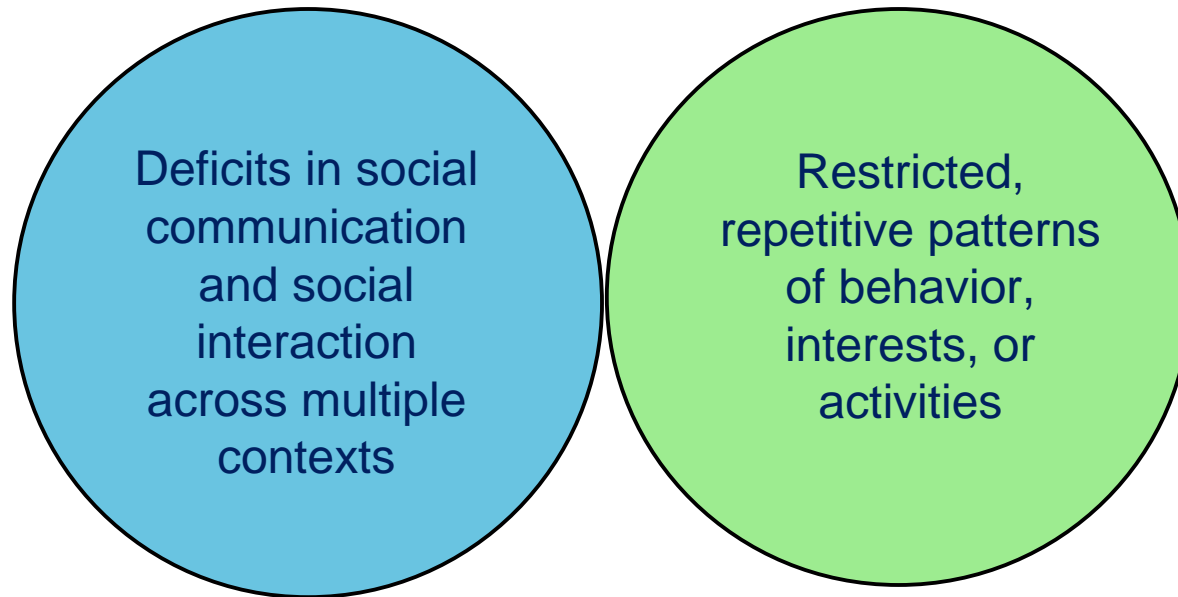
DSM-5 (May 2013)
Autism Spectrum Disorder

The Range of ASD is Broad



Autism Spectrum Disorder (ASD)

DSM-5 Definition (2013)



Social-Communication Differences

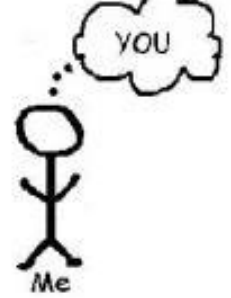
DSM-5 Criteria

- Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following:
 - Deficits in social-emotional reciprocity
 - Deficits in nonverbal communication
 - Deficits in developing, maintaining, and understanding relationships

What you might see in college students with ASD

- Difficulty reading social cues
- Unusual eye-gaze
- Awkward interactions; Difficult conversation
- Domination of classroom/lab discussion without awareness of cues from others to stop
- Difficulty understanding another person's perspective or opinion
- Problems with social thinking

Social Thinking

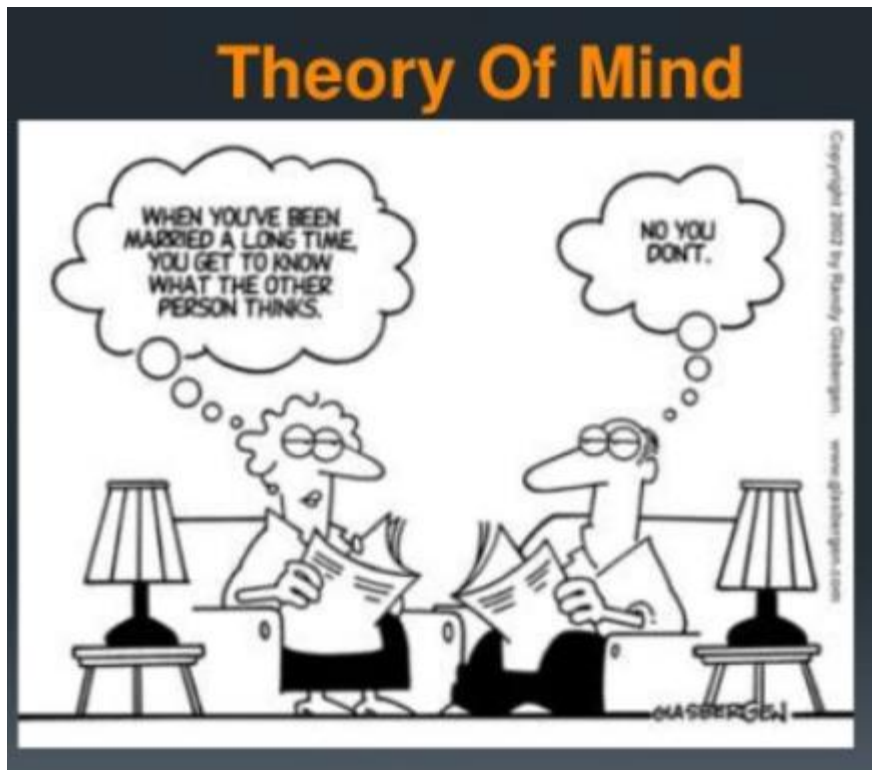


- Social thinking is what we do when we interact with people: we think about them. How we think about people affects how we behave, which affects how others respond to us, which affects our own emotions.
- Most of us have developed our social thinking skills from birth by observing and acquiring social information and learning how to respond to people. However for some individuals, this process does not come naturally.

Garcia-Winner, 2016

www.socialthinking.com

Social Thinking: Theory of Mind & Mindblindness



Social Thinking: Theory of Mind & Mindblindness

What Is Mindblindness?

- Baron-Cohen (1995) uses the term mindblindness to explain why individuals with ASD have an impaired ability to read minds. Baron-Cohen postulates that a specific part of the brain that is typically responsible for mind reading is impaired in children with ASD.
- Powers (2003) interprets mindblindness as “an inability to put oneself in the place of another and to see things from another person’s perspective” (p. 11-12). He adds that developing a theory of mind “enables the child to perceive reality from another’s perspective ... to feel empathy, to identify with another’s feelings and point of view, and to understand that others don’t know everything that the child knows. It also makes it possible for the child to understand pretense, sarcasm, deceit, and certain kinds of humor” (p. 11-12).

Social Awareness and Emotional Contagion

Yawning is contagious. A tendency to catch other people's yawns may depend on a social awareness of others.



Yawning (Senju et al., 2007; Helt et al, 2010)

Restricted, Repetitive Patterns of Behavior

DSM-5 Criteria

- Restricted, repetitive patterns or behavior, interests or activities
- Stereotyped or repetitive motor movements, use of objects or speech
- Insistence on sameness, inflexible adherence to routines or ritualized patterns of verbal or nonverbal behavior
- Restricted, fixated interests that are abnormal in intensity or focus
- Hyper or hypo reactivity to sensory input or unusual interest in sensory aspects of the environment

What you might see in college students with ASD

- Highly-focused on specific topics or interest areas
- Anxiety or stress with changes or unexpected situations
- Unusual repetitive behaviors, like pacing
- Strong reaction to noise, lights or sounds in the environment

Other Possible Challenges

- Low motivation for classes outside interest areas
- Misinterpreting sarcasm, innuendo
- Group work
- Misunderstanding assignments
- Concrete or literal thinking
- Susceptible to manipulation

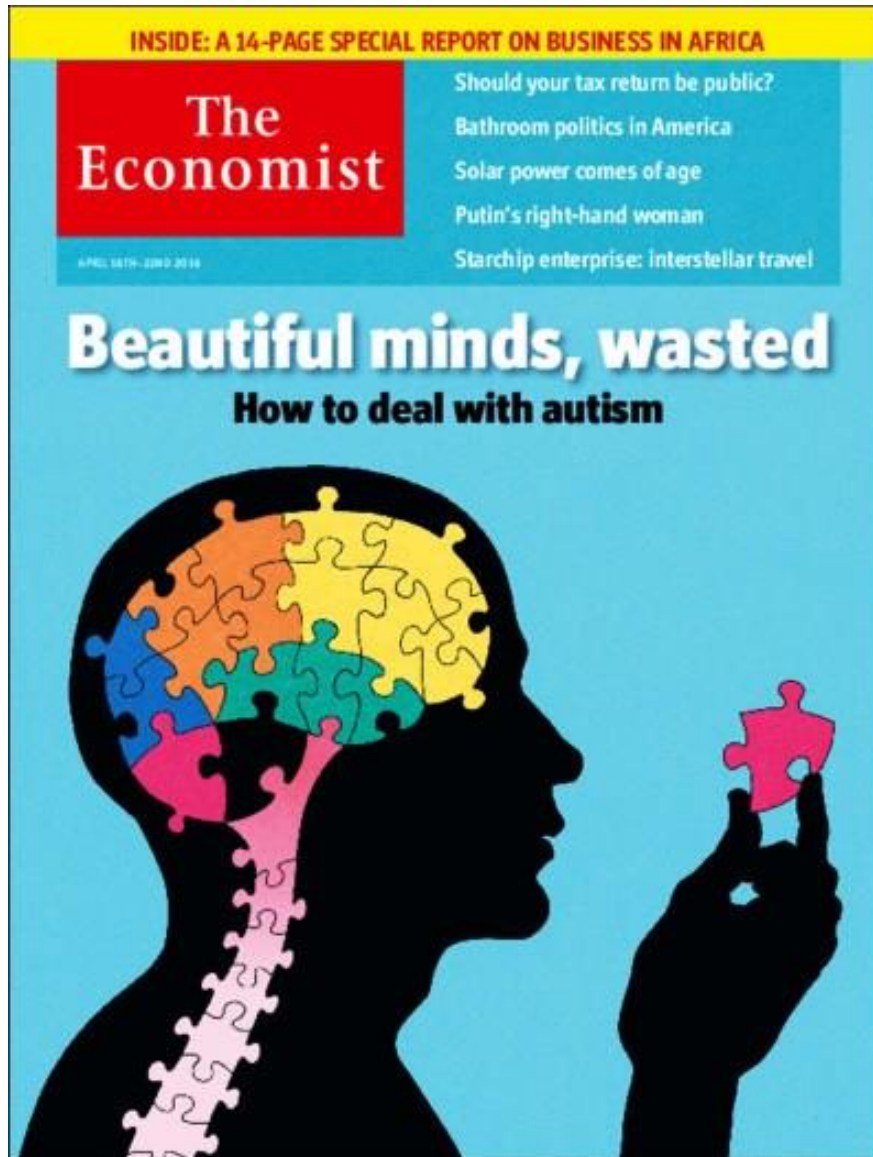
In addition, there are MANY positives
about ASD...



Uniqueness and Strengths

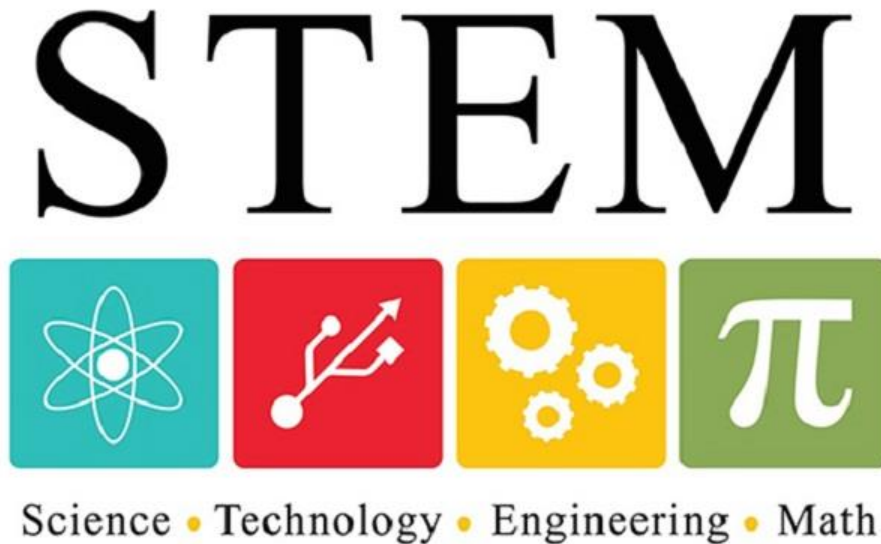
- Advanced knowledge in particular subjects areas
- Diligence in gathering and organizing information on a topic of interest
- Advanced vocabulary

- Creative thinking and original approaches to solving problems
- Highly logical
- Exceptional memory
- Attention to detail
- Speak their mind; honest



Employers who hire autistic staff are usually glad they did. Many have strengths that make them well suited to some jobs. They are unusually good at focusing, for example. When asked what he most enjoys about his job, Mr Schindler says: "Solving software-engineering problems." His favorite hobby? "Solving software-engineering problems."

Study confirms that College Students with
ASD are more likely to be STEM Majors



What would happen if the autism gene was eliminated from the gene pool? You would have a bunch of people standing around in a cave, chatting and socializing and not getting anything done”

-- Temple Grandin



There are no two persons with
autism exactly alike

**"If you've met one person with
autism, you've met one person
with autism."**

Stephen Shore, Adult with Autism

Stephen Shore, Ed.D.



ASD and the Brain

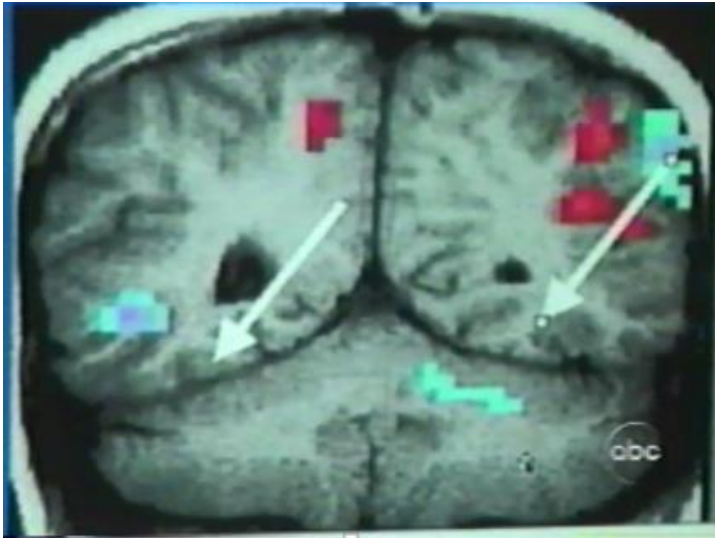
Processing Differences

An individual with autism is like a Mac in a PC-dominated environment. It is hard-wired differently. Not incorrectly – just differently.



-- Ellen Notbohm

Autism is a Neurobiological Disorder



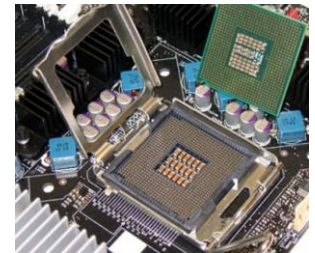
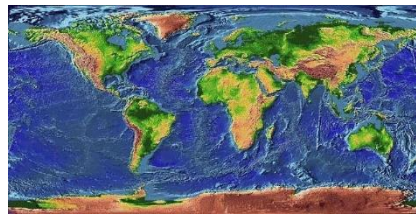
The way that one's brain is hardwired makes a certain pathway more likely



Experts on people



Experts on things

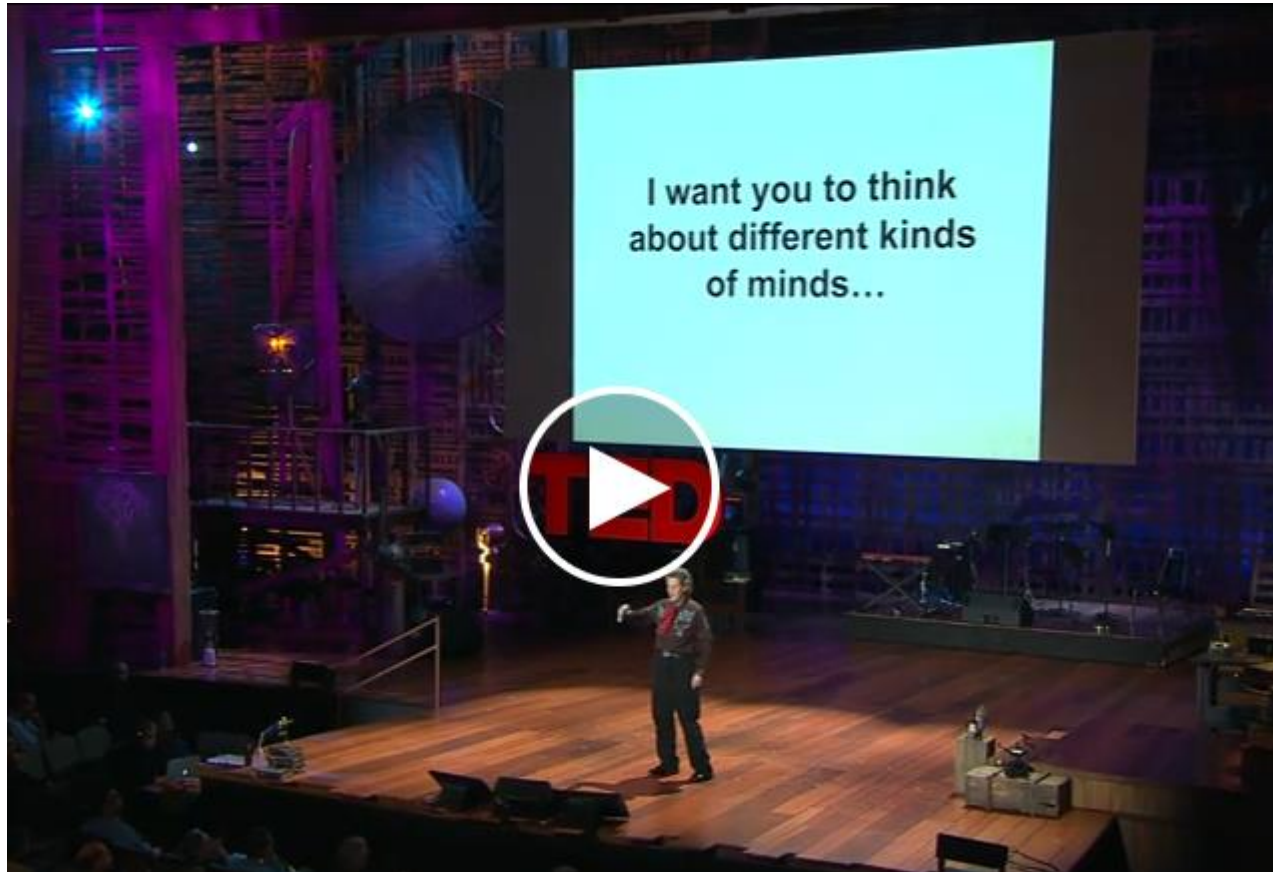


John Elder Robison



Strategies & Supports

Temple Grandin, Ph.D.



“Work by Nicholas Gelbar, Isaac Smith and Brian Reichow (2014) offers faculty members suggestions for helping students on the spectrum. As much as possible, use concrete language in both lectures and the syllabus. Break tasks down into more steps, provide greater organizational support, and realize that group work and public speaking may offer particular challenges for students who struggle socially and who do not thrive in environments demanding rapid transitions. In other words, when working with students whose disability makes flexibility extremely difficult, faculty members must be the flexible ones. They must also take responsibility for educating themselves about neurodiversity, and if that seems too hard, they can do one last thing. They can defer to autistic students who *do* understand their own needs, and they can give students the support they ask for.”

-Inside Higher Ed (2016)

Verbal Language

- Student may have sophisticated and impressive vocabulary and excellent rote memory but may have difficulty with high-level thinking and comprehension skills. They can give the impression that they understand, when in reality they may be repeating what they have heard or read.
- Many individuals with ASD/Asperger are visual learners. Written descriptions, pictures and graphs may be helpful to them.

Take Away

Make words concrete

- Write it down, Write it down, Write it down
- Use visuals



In focus groups, college students with autism told story after story about metaphorical or abstract language leading to confusion, as well as loud, active classrooms challenging their abilities to focus on learning. For many, the frustrations became too great, leading to stress and anxiety. However, when students felt their social needs were met - in particular when faculty members proved willing to modify their teaching style - students had much more positive experiences.

-Inside Higher Ed (2016)

Take Away

Watch your language!

- Use concrete language
- Avoid idiomatic references



Central Coherence

ASD may come from a cognitive style that diverges from the “big picture” way of perceiving, making sense of, and remembering, toward a more detail-centered way of processing. Individuals with ASD do not process overarching ideas but instead accumulate knowledge in a piece-meal way. The weak central coherence perspective suggests that college students with ASD would have difficulty with activities requiring inference, synthesis, determination of significance, and argument. On the other hand, students with ASD may excel at activities requiring accumulation of fact or data, analysis of pieces, and accuracy with detail.

Gobbo and Shmulsky (2014)

Writing and Researching

- Student may be able to state facts and details, but be greatly challenged by papers or projects requiring taking another's point of view, synthesizing information to arrive at a larger concept, comparing and contrasting to arrive at the "big picture," or using analogies, similes, or metaphors.



Take Away

Support writing and research

- Help the student understand and describe the big picture
- Keep directions simple and declarative
- Ask students to repeat directions in their own words to check comprehension



Attribution Theory Applied to Mentoring

- Every day we must guess how people will act, often from small shreds of evidence.
- We do this through a form of social cognition called attribution.
- As we observe others, we make inferences about them. We attribute people's behavior to various causes.
- Whether we are right or wrong about the causes of their behavior, our conclusions affect how we act.

How do our attributions change how we behave as mentors?

This student is not progressing on his research because he's disorganized and spends too much time talking about X and not enough time doing the work

This student has ASD and it's possible he needs additional supports to make progress because of some of these characteristics

Take Away

Strategies for Mentoring

- Be direct when offering feedback, directions, discussion
- Model appropriate behavior
- Be patient, accepting, and inclusive
- Avoid taking seemingly rude behavior personally



Take Away

Supporting Group Work

- Avoid having students self-select into groups. Try to place the student with others who you believe will be understanding and accepting
- When the student must be in a group, clarify your expectations, both academic and behavioral, to individuals within the group
- Be the mediator if any conflicts arise
- If a conflict occurs, explain to the student what effect they had on others, why the conflict arose, and how to be successful in a group setting (e.g. time spent talking, equal work from individuals, hearing everyone's opinion)



Take Away

Rules and Guidelines

- Help identify rules and guidelines for interactions
 - Personal space
 - Time/boundaries



Be Concrete

Student arrives at your office at 1:40. "We have 20 minutes to work together. At 2:00, I'm going to ask you to take my suggestions home and start making changes to your paper. Come to my office Thursday afternoon at 3:00 and show me what work you have done on the paper."

*A good rule identified by Temple
Grandin:*

“You simply cannot tell other people they are stupid, even if they really are stupid.”



— Temple Grandin

Resources at GVSU

Autism Spectrum Disorder Supports at GVSU

Disability Support Resources (DSR)

- Kathleen VanderVeen - vandervk@gvsu.edu
- Shontaye Witcher - witchesh@gvsu.edu
- Jason Osborne - osborjas@gvsu.edu



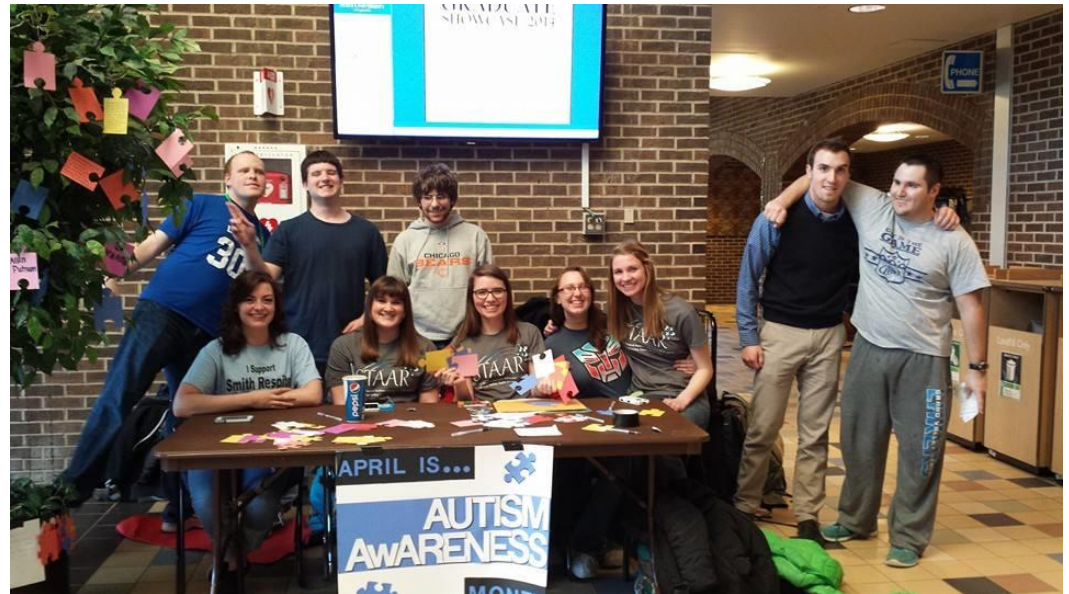
Psychology Department/Autism Education Center

- Amy Matthews – matthewa@gvsu.edu
- Jamie Owen-DeSchryver – owendesj@gvsu.edu



Campus Links

- Social community
- Peer mentoring
- Regular check ins
- Social activities



Video

Understanding Asperger Syndrome: A College Professor's Guide

- <http://www.youtube.com/watch?v=233-3jtEZck>

Questions?



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