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Supporting Neurodiverse and Deaf Neurodiverse Individuals, in partnership with RIT/National Technical Institute for the Deaf

Haley Boring, M.S., CCC-SLP

Haley Boring, MS, CCC-SLP

Haley Boring is a practicing speech language pathologist at the National Technological Institute for the Deaf. Haley focuses on neurodiversity, and is passionate about working with students to create supports to help them succeed. Haley studied at Nazareth University, where she completed the Deafness Specialty Program.

Disclosures

- **Presenter Disclosure**: Financial: Haley Boring is an employee of RIT/NTID. Non-financial: Haley Boring has no relevant non-financial relationships to disclose.
- **Content Disclosure**: This learning event does not focus exclusively on any specific product or service.
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Limitations/Risks

- The applicability and accuracy of the course content may vary by the clinical, geographical, and cultural context; you should evaluate the course accordingly.
- As healthcare is rapidly evolving, new findings may change the validity of the information presented in this course. Providers should always consult the latest research and guidelines from professional associations.
- The course may not cover all possible risk factors, diagnostic methods, or treatment options, and complex cases may require additional considerations.
- Healthcare providers should apply cultural competence and sensitivity to ensure effective and respectful care based on their patients' diverse needs.
- It is the responsibility of course participants to critically evaluate the evidence from multiple sources to guide professional practice.

Learning Outcomes

After this course, participants will be able to:

1. Define the neurodiversity movement and basic related vocabulary.
2. Identify supporting research and rationale for this shift in thinking.
3. Discuss how communication patterns may be impacted by a person's hearing status, chosen modality, culture, and neurotype.

Introduction

- Professional Background
  - Early Intervention
  - Skilled Nursing
  - Public Schools- Self Contained
  - NTID SLP
- Personal Background
  - Neurodivergent mom, managing a neurodiverse family

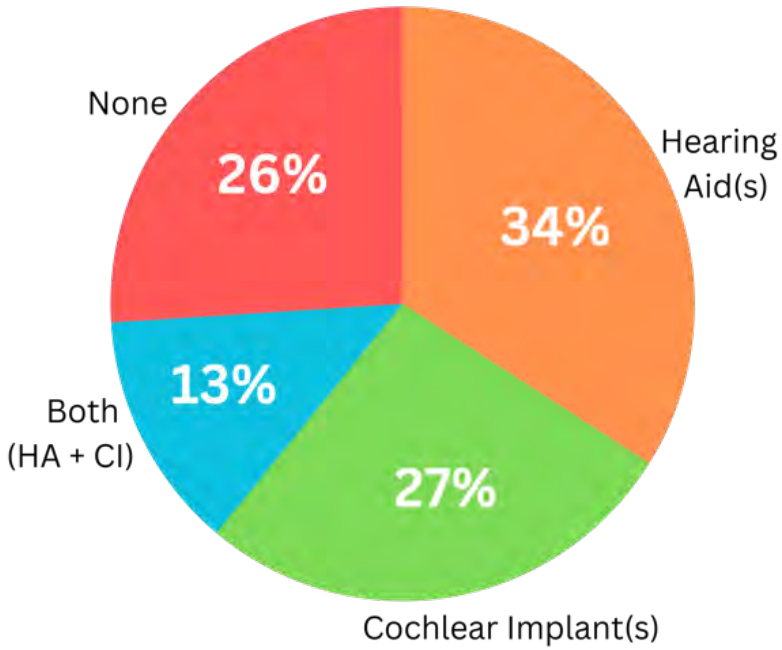
About NTID

The **National Technical Institute for the Deaf (NTID)** is one of the nine colleges of the **Rochester Institute of Technology (RIT)** in Rochester, New York.

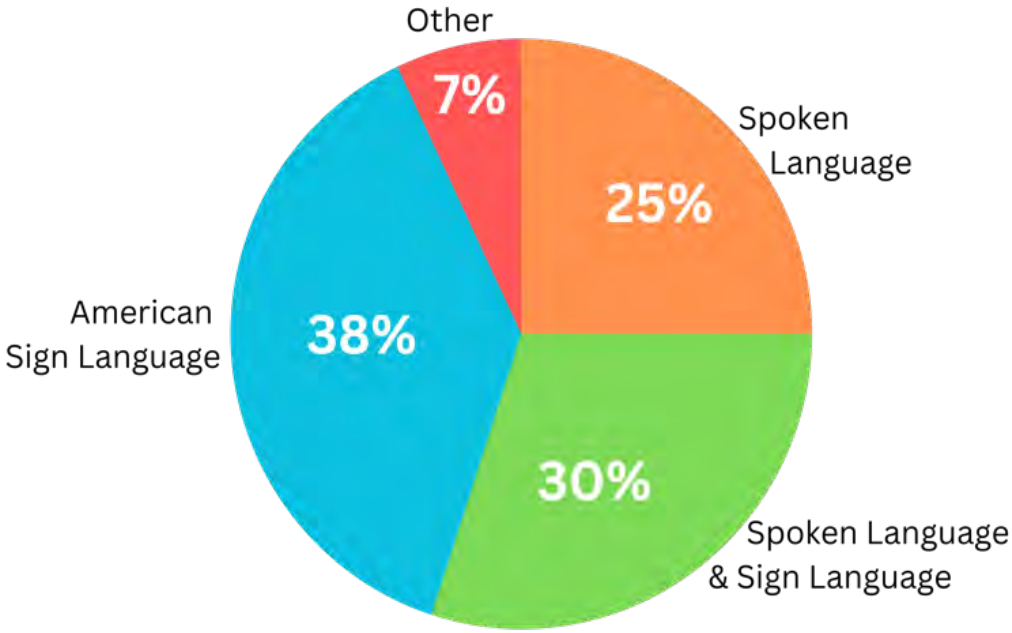
NTID was established by U.S. Congress in 1965 to provide higher education opportunities for deaf and hard-of-hearing students.

About NTID Students

Listening Technology Use



Communication Modes



About NTID Au.D.s & SLPs

- ASHA-certified Audiologists and Speech Language Pathologists at NTID provide on-campus audiological and speech-language services to members of the RIT and NTID Community. Our primary mission to serve and support the diverse communication needs and communication skill development for our deaf and hard of hearing college students.
- Our Au.D.s and SLPs are fluent in American Sign Language and prioritize matching each student and client's language and communication modalities.

https://www.rit.edu/ntid/css/

Our Services

- **Audiology Center**
  - Hearing tests
  - Consultations
  - FM/Roger loans
  - Speechreading and/or listening training
  - Cochlear implant mapping
  - Hearing aid and cochlear implant adjustments, troubleshooting, repairs, and upgrades
- **Speech & Language Center**
  - Speech intelligibility
  - Grammar and technical/professional vocabulary and practice
  - Communication strategies for work-related interactions/job interviews
  - Presentation skill development and practice
  - Use of mobile applications as communication tools

"I wish the educators and staffs [knew better how to support] us, especially sensory [regulation], time management, and many things related to neurodivergence"

We have responsibilities.

to ensure our interventions do not harm an individual's:

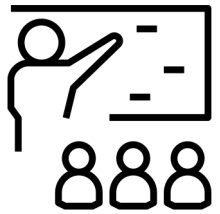
culture and language

identity, individuality, and self expression

to use our knowledge, positions, power, and resources to

advocate

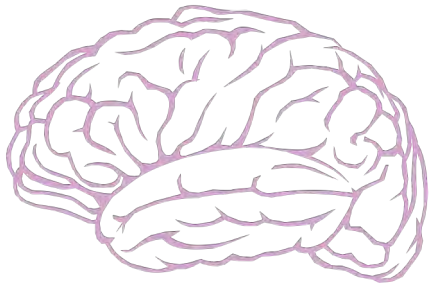
listen



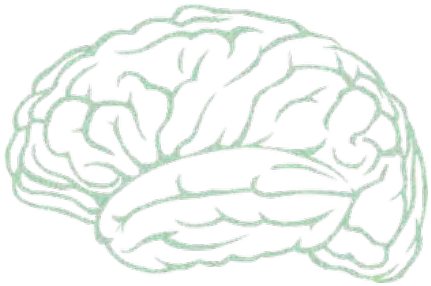
educate

What is neurodiversity?

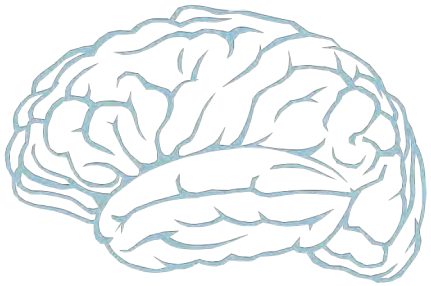
All of the different brains that make up society



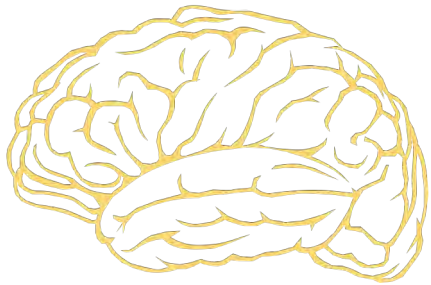
ADHD



Autistic



Typical



Dyslexic

...and so many more!

Quick Vocab Review

Neurodivergent

A person whose brain is different from most people

Masking

Copying neurotypical behavior or hiding neurodiverse behavior

Sensory Regulation

Understanding, processing, and responding to *sensory input* in a way that is safe and comfortable

Neurotypical

A person whose brain is the same as most people

Stimming

An automatic, soothing, repetitive behavior

Emotional Regulation

Understanding, processing, and responding to *emotions* in a way that is safe and comfortable

Neurodiversity Movement

Diverse perspectives benefit society

We can reduce the impact of disability by making society more accessible

We should listen to people within a community about how they want to be treated and supported

Neurotypes are neutral, one is not “better” than another*

Keep in mind:

1. Neurodiverse identities can be disabling
   - Folks with higher support needs exist and deserve support
   - Folks with lower support needs may experience specific scenarios or moments during which they need more support
2. "Neurodivergent" is *not* a word to replace "autism"
   - It's an umbrella term to describe all brains (including autistic brains!)
   - Also remember, Autism is **not** a bad word we need to avoid!

Does this mean neurodiverse people don't need communication services?

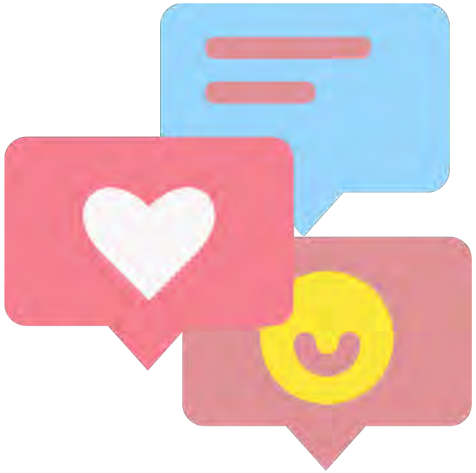
No!

It means we must:

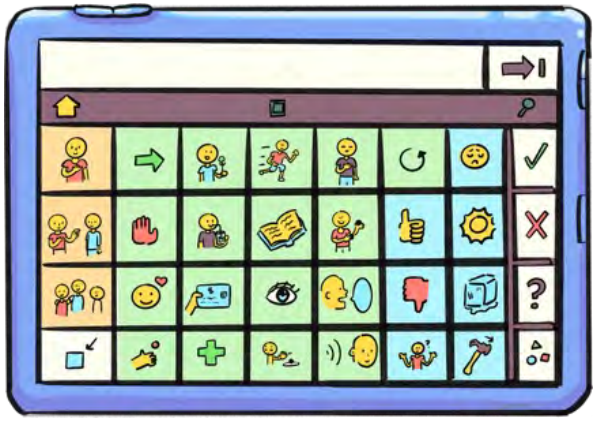
- Do detective work to determine individualized goals that are needed to support this person in their environments
- Ensure our approaches are affirming (i.e. don't force masking)
- Consider how we teach social communication with all our students (even neurotypical). Is it inclusive? Or are other communication styles an after thought, or "less than"?

Why the change?

More neurodiverse people are sharing their experiences:

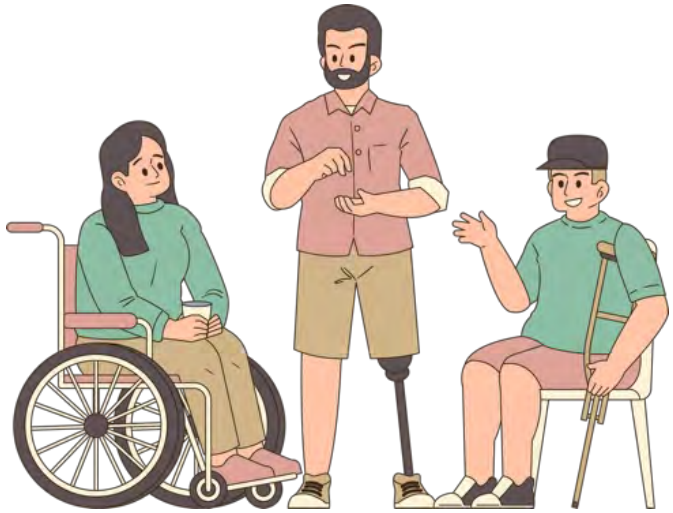


Social media



Improvements high tech AAC

Society is starting to listen



Paved by other movements, including by disability rights groups and Deaf advocacy

Research supports this view

- First impressions and thin slice judgements

  (Sasson, N., Faso, D., Nugent, J. et al., 2017)

- Negative impacts of masking, limited improvements of quality of life given social skills training

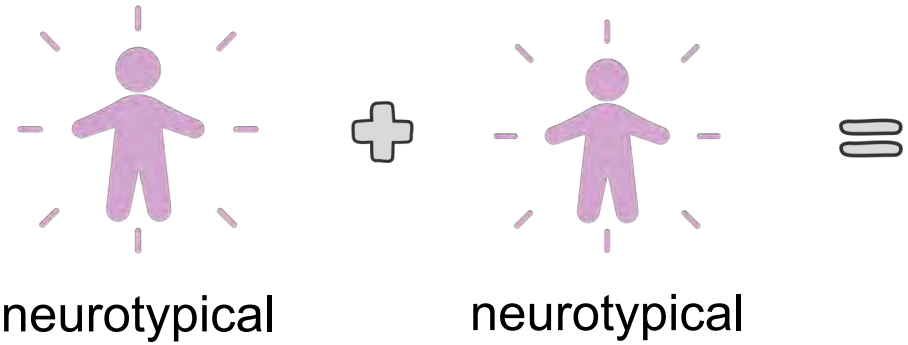
  (Pearson A, Rose K., 2021)

- Perspective taking and the double empathy problem

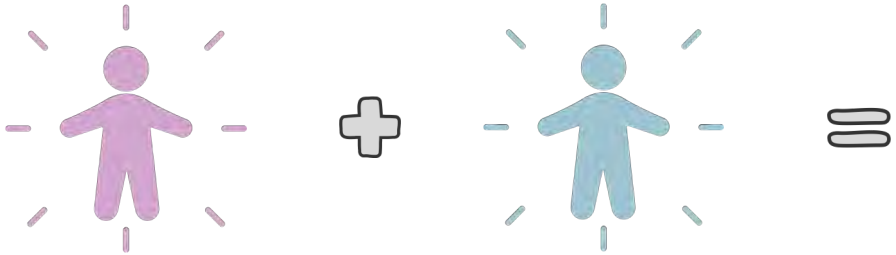
  (Heasman B, Gillespie A., 2018)

  (Sheppard, E., Pillai, D., Wong, G. T., Ropar, D., & Mitchell, P., 2016)

The Double Empathy Problem

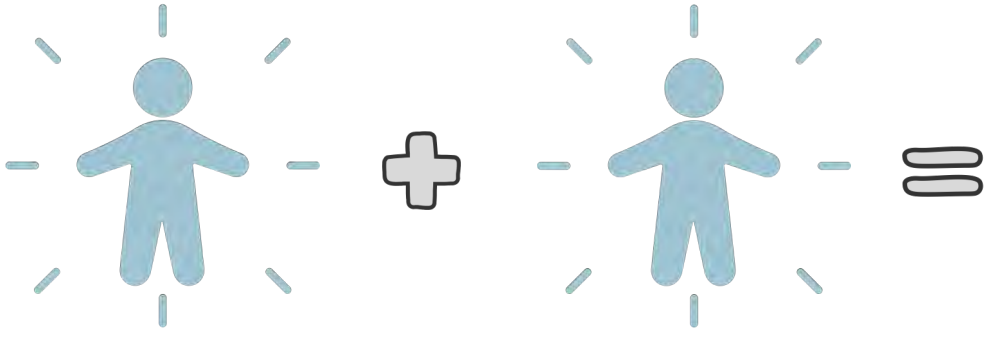


neurotypical + neurotypical = successful communication



neurotypical + neurodivergent = communication breakdowns

The Double Empathy Problem



neurodivergent neurodivergent

successful communication

We can shift our thinking to thinking about a communication mismatch

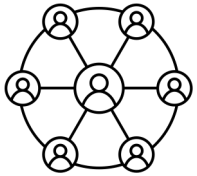
Risks of Masking

Chronic Anxiety

Low self-esteem

Loss of Identity

Suicide risk



Missing authentic relationships

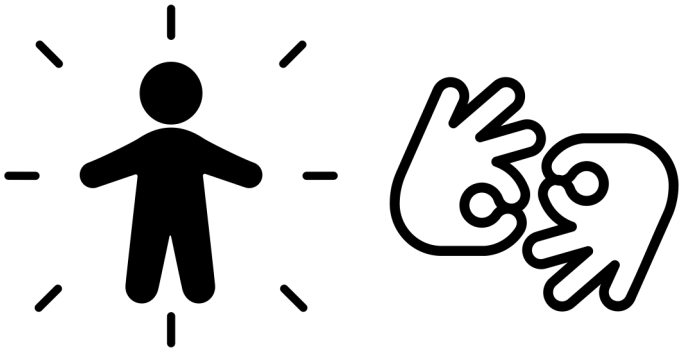
Difficulty setting safe boundaries

Communication Differences

Considerations for D/hh and Signing Students

We have to apply what we know about language development and communication patterns of:

hearing neurodiverse people

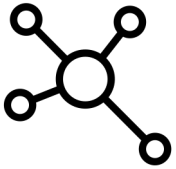


neurotypical D/hh and ASL users

while advocating for more research and listening to people with intersectional identities

Topic Related Differences

Topic Changes



may change topics quickly

may be able to discuss two topics at once

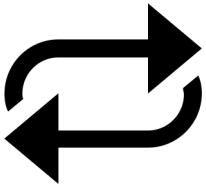
Infodumping

stay on one topic for a long time

give ALL the information

often monologue

Echolalia



repeating a phrase, word, sign, sound

immediate or delayed

has purpose: communication, processing, regulation

Non-linear Stories

may not follow sequential order

may include many (or not enough) details

including lots of detail can also be seen in neurotypical Deaf communicators

High Interests

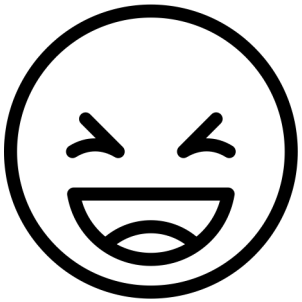
may have very high interest topic

may hyper focus on this

consider vocabulary and language abilities

Non-Literal Language

Humor



may misunderstand sarcasm

may prefer “dark” or “young” humor

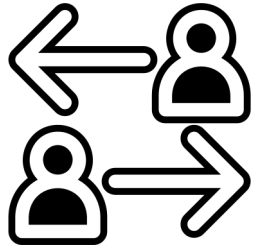
Hidden Cues

figurative language may be hard to understand

implied meaning (“I’m fine”)

social expectation: “call me anytime!”

Direct Language



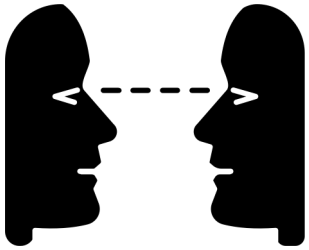
may better understand and use language that is straightforward

may not enjoy “small talk”

also may be seen in neurotypical Deaf communication

"Body" Language

Eye Contact



may be uncomfortable, distracting, or painful

may be OK with familiar or trusted people

consider visual referencing and viewing the signing space

Facial Expression

may not match neurotypical expectations

may be more or less expressive

may impact ASL facial grammar and non-manual markers

Body Language and Gesture

may not match neurotypical expectations

may misunderstand others' body signals

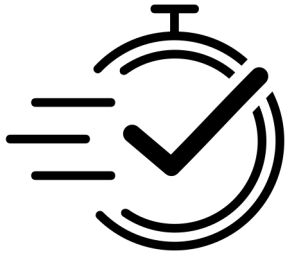
Posture and Gait

may not match that of neurotypical

may have coexisting difficulty with motor planning, sensory needs, muscle tone, etc.

Production Differences

Rate



- faster rate of signing or speaking

Voice

may have less variation in pitch and volume

may have trouble understanding how tone can change meaning

- Neurotypical D/hh communicators who use spoken communication may also have difficulty coordinating pitch, tone, and volume.

Communication-Related Differences

Executive Function

* working memory can impact fingerspelling

Regulation

- sensory
- emotional

Stimming

* visual stimming impacting getting visual information

Gender Expression

Concurrent diagnosis

“No decisions about us without us”

Amplify Deaf, Autistic, Disabled, neurodivergent, and intersectional perspectives.

Be cautious about outside perspectives, such as neurotypical parents or therapists of neurodivergent children.

Pursue learning opportunities from people within communities.

Did you feel school prepared you for college and adult life?

"Not really, because I was unprepared because I was not taught enough about adult stuff, and that I was undiagnosed with ADHD and autism too […] then I went to RIT first year, and was a bit unprepared because everything was my first time to experience."

It's stressful and overwhelming, but also learning new real experiences too.

Survey: Please provide feedback

A secondary mission of RIT/NTID is preparing professionals to work with the deaf/hard of hearing population. Your completion of this 5-question survey will help us monitor our impact and bring you the content you want and need!

Course Title: Supporting Neurodiverse and Deaf Neurodiverse Individuals

Survey Link:

https://rit.az1.qualtrics.com/jfe/form/SV_3jSsLz8ViyPZDsq

Congratulations!

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