

# Forging Opportunities for Neurodiverse Students

Valerie Ross  
Jon Argaman  
Amanda DiLodovico

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Penn Arts & Sciences

The Marks Family Center for Excellence in Writing

# Leadership: Creating Integrated Educational Environments

Leadership involves creating and sustaining schools that are successful for all students, which includes a shift from providing separate programs for a few students to providing excellent educational services for all students, ie, integrated educational environments.

For example, we do not oppose students receiving small-group or individual instruction. We do, however, advocate that each day *each student* should have the opportunity to receive small-group, large-group, or individual instruction

—Colleen Capper, Elise Frattura *Meeting the Needs of Students of ALL Abilities: How Leaders Go Beyond Inclusion* (2009)



The diagram features a central title 'The Critical Writing Program' in bold black text. Surrounding this title are six blue pentagonal shapes, each containing white text describing a program component. The components are arranged in two rows of three. The top row includes 'Writing Requirement: Provides First Year Writing Seminars', 'Directed Self-Placement', and 'Shared Curriculum'. The bottom row includes 'Shared Assessment Criteria', 'Smaller Seminars & Embedded Tutors for Students Who Desire More Individual Attention', and 'Portfolio Assessment Normed & With Outside Reader'.

Writing Requirement:  
Provides First Year  
Writing Seminars

Directed  
Self-Placement

Shared Curriculum

## **The Critical Writing Program**

Shared Assessment  
Criteria

Smaller  
Seminars &  
Embedded Tutors for  
Students Who Desire  
More Individual  
Attention

Portfolio Assessment  
Normed & With  
Outside Reader



# Shared curriculum: unintended benefit

Avg. incoming class 2,600 students

All share the same writing curriculum

Over the years, patterns emerge



University of Pennsylvania Class of 2026



# Patterns of Student Challenges Emerge in Response to Shared Curriculum

Reading

Scaffolding

Group  
Work

Forgetfulness

Deadlines

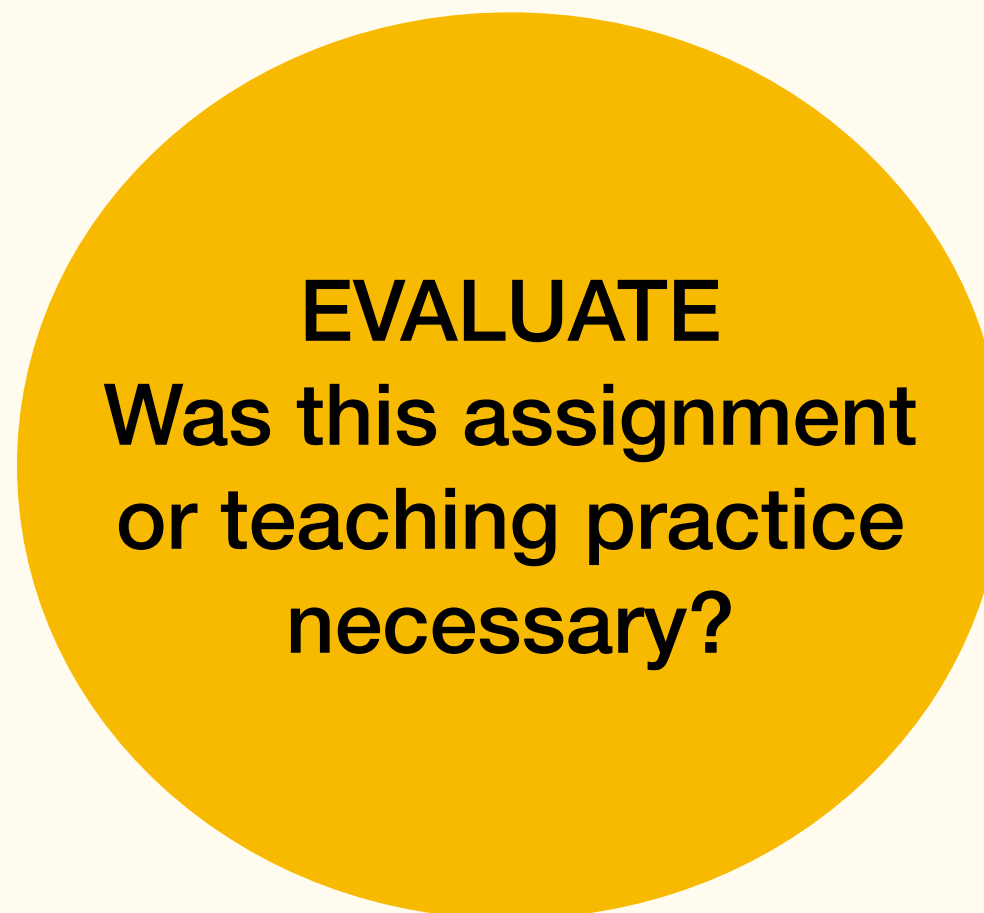
Difficulty Following  
Written Instructions

Difficulty Following  
Lectures or Verbal  
Instructions

Good Speakers,  
Struggling Writers

Perfectionism

# Opportunities to Move Beyond Inclusion



# Today's Panel

- 10 minutes presentation for each panelist with remainder of time devoted to questions and discussion.
- Val Ross, Aural, Verbal and Visual Processing
- Jon Argaman, Moving Beyond Autism & Classroom Accommodations
- Amanda DiLodovico, ADHD in the College Writing Classroom

**Val Ross, Marks Family Senior Director  
Center for Excellence in Writing, University of Pennsylvania**

Valerie Ross is the Senior and founding Director of the Marks Family Center for Excellence in Writing, including the Critical Writing Program, which provides writing courses to all Penn undergraduates, and the Marks Family Writing Center, which provides writing support to Penn students. The Marks Family Center for Excellence has a strong commitment to inclusionary teaching and research and strives to be a disability-centered organization.

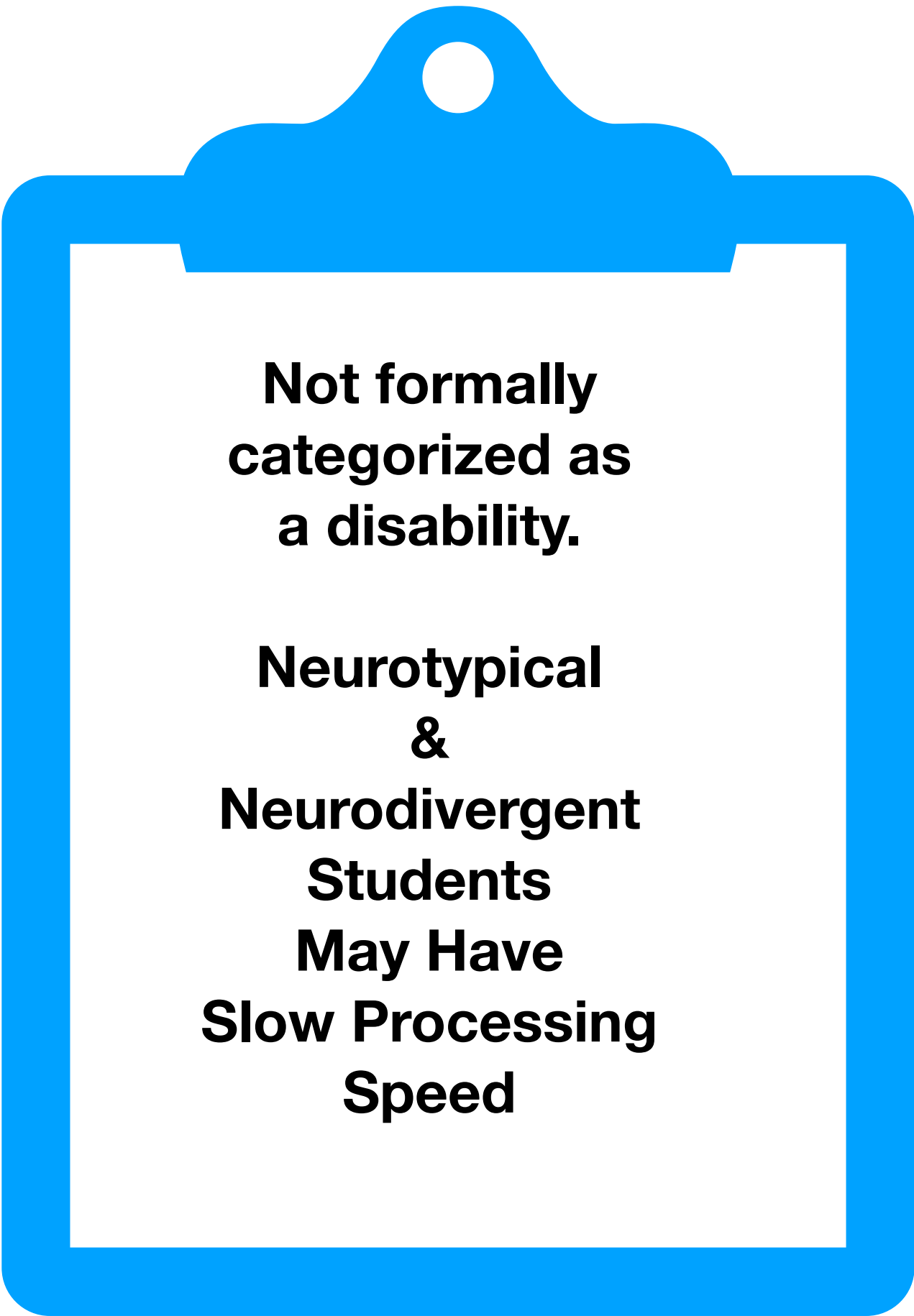
See, for example, Ross and Browning (2018), "From Difference to Differance: Developing a Disability-Centered Program." Along with a focus on disabilities, Ross's other research interests include fairness in writing assessment, writing in the disciplines, and theories of organizational change.



**Ableism is a system that places value on people's bodies and minds based on societally constructed ideas of normalcy.**

*–Talila A. Lewis*

# Processing Speed



**Not formally  
categorized as  
a disability.**

**Neurotypical  
&  
Neurodivergent  
Students  
May Have  
Slow Processing  
Speed**



**Takes more time;  
isn't an  
intellectual deficit**



**Misunderstood, can lead to frustration,  
depression, loss of self-confidence,  
under-education, under employment**

# Where may we find processing delay?

**Reading Disorders  
(Dyslexia)**

**Verbal or  
Visual  
Processing  
Disorders**

**Graph-Motor  
Problems  
(Dysgraphia)**

**Obsessive  
Compulsive  
Disorder**

**Perfectionism**

**Emotional  
Interference  
(anxiety,  
self-doubt  
second-  
guessing,  
self-  
consciousness)**

**Autism**

**ADD,  
ADHD**

**Traumatic  
Brain  
Injuries,  
Trauma**

**Neurotypicals**





**Timed Tests**



**Being Called On**



**Absorbing & Recalling  
Class Materials**

## Obstacles for Those with Slower Processing



**Meetings & Group Work**



**Reading & Writing  
Assignments, Slides,  
Handouts**



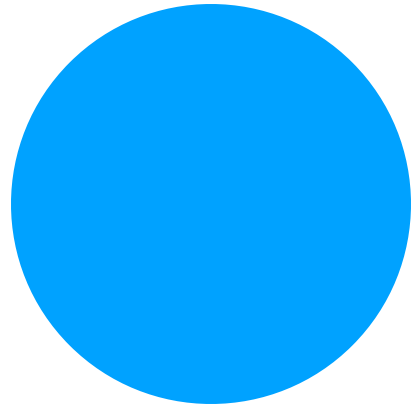
**Difficulty Getting  
Started**



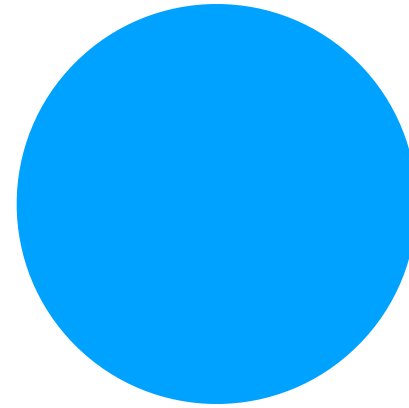
**Impatience or  
Ridicule**



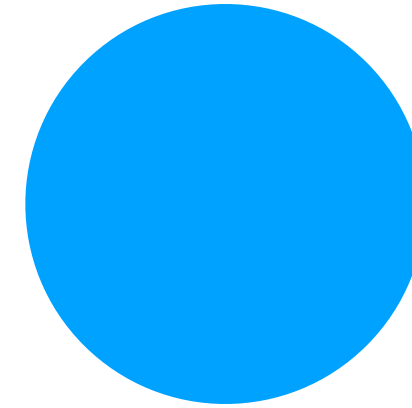
**Lectures &  
Discussions**



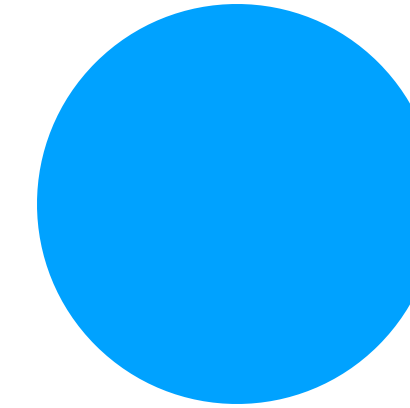
**Timed Tests**



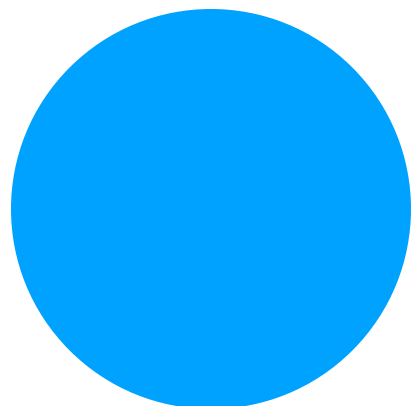
**Being Called On**



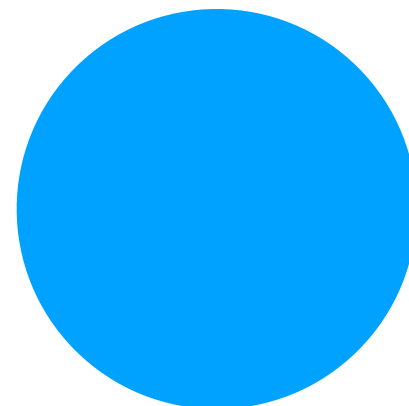
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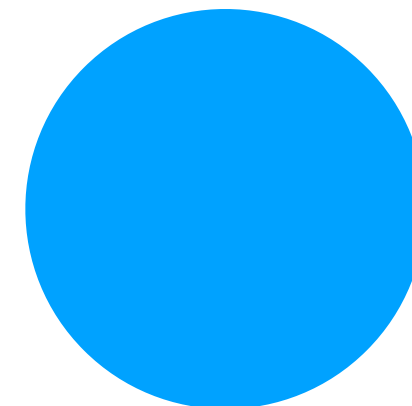
## Obstacles for Those with Slower Processing



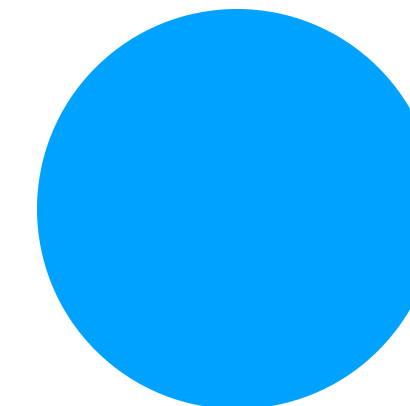
**Meetings &  
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**Reading & Writing  
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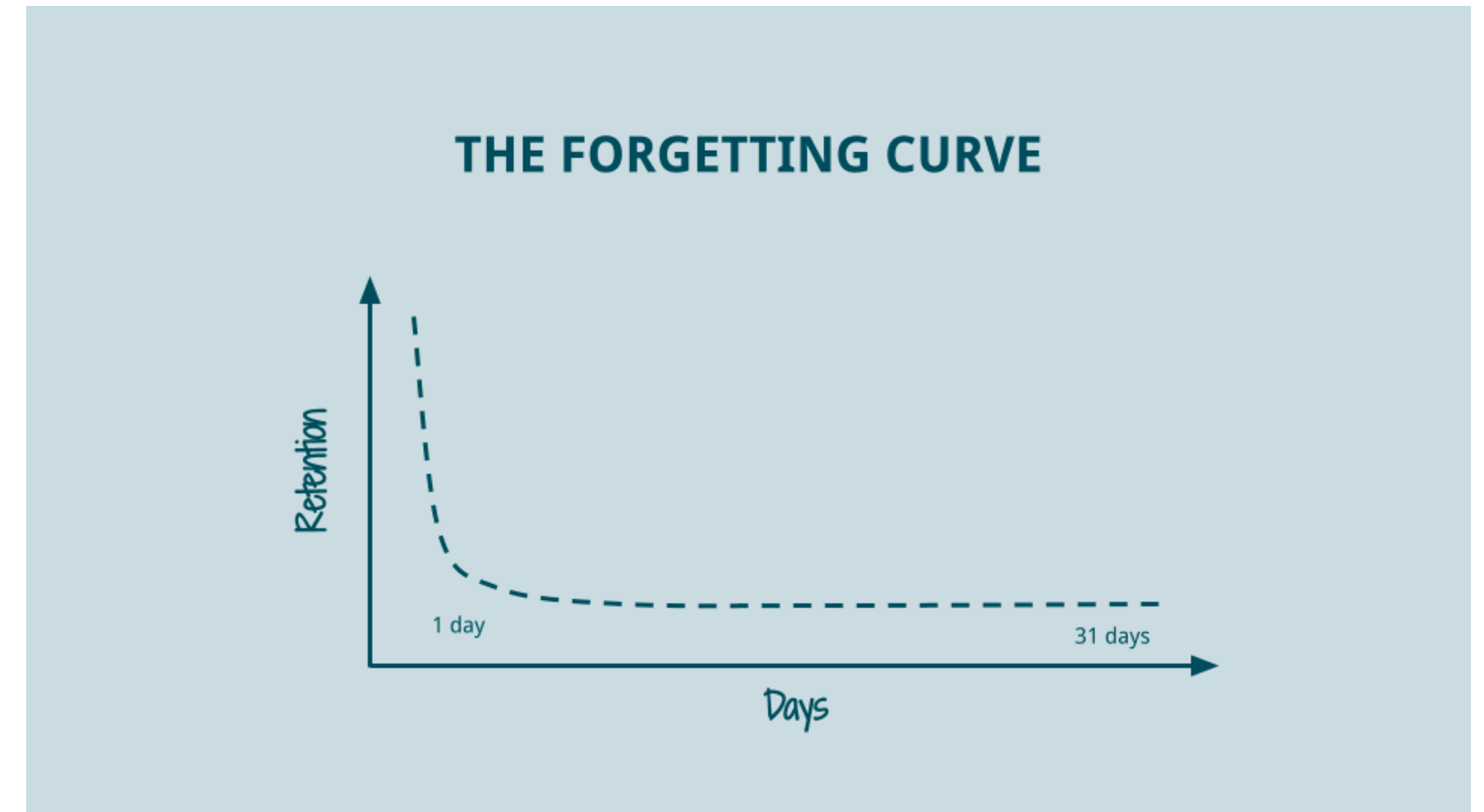
# Transforming Our Practices

Addressing Different Processing Speeds and Challenges



# Provide Opportunities to "Overlearn"

- Important for slower processors to have time to review the materials, the assignment instructions, etc.
- Ideally provide in written, visual, and audio formats.



# Aural Processing

- provide written summaries, outlines, and recordings of class lessons
- note key discussion points on the board or in another written form
- work carefully through one question at a time in class
- do not judge students who ask the same question or who appear to be distracted
- do not cold-call students





# Verbal Processing

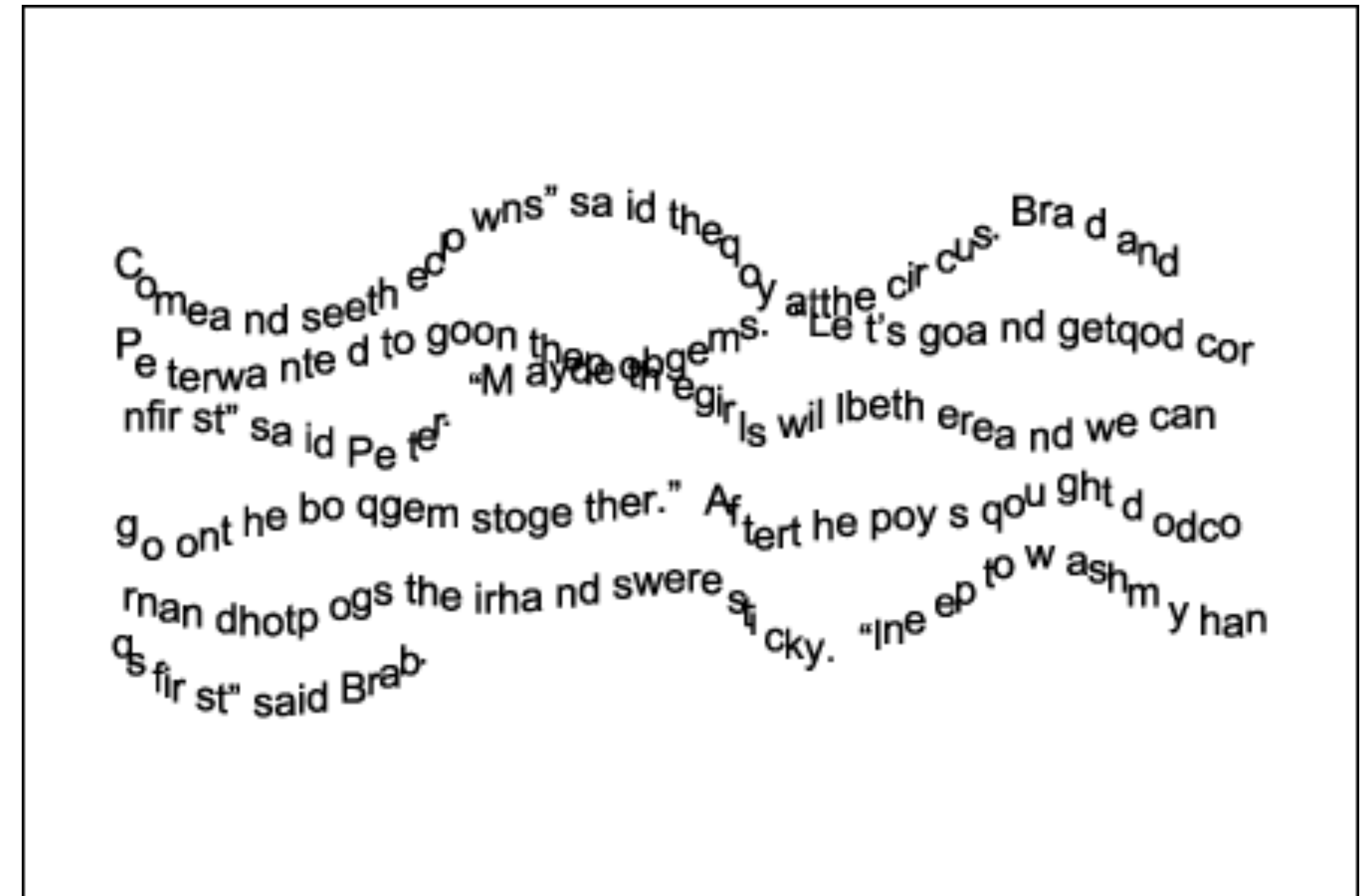
- Avoid text-heavy slides; read all text aloud
- Give audio feedback with brief written highlights
- When possible, use books that are audible.
- Apps to convert web materials to audio
- Regular individual meetings with students to answer questions and check in on their learning





# Visual Processing

- Graphic presentations, visualizations of information or key points are very helpful for many students who are slower auditory or verbal processors.
- However, for students with visual processing disorder, visual presentation of information can be extremely difficult to grasp.



# Big Picture, Mental Model

- Make sure the student is given the big picture first, a broad brush understanding of the final product and its elements.
- After presenting the big picture, slow down, collect your thoughts, and scaffold. Check for student learning. Ask students to reiterate, demonstrate, use exit surveys or in-class writings: "What do you feel you understand? What is as yet confusing you?"
- Often students with slower processing speed get lost in an avalanche of explanatory details, repetitions, restatements but are embarrassed to tell you so they will politely nod when you say things like, "does this make sense?"



Maslow's hierarchy of needs

# Group Work

- Highly structured; best to provide instructions the day before to allow slower processors to read and prepare
- Provide written instructions that are read aloud by volunteer students in the group as others read silently along
- Give students the option of working independently or in groups
- Make group work low stakes, allow ample time, and foreground welcoming of different kinds of contributors, noting that slow and steady wins the race





# Measure Learning Rather Than Quantity

- Do students really need to read so many books or articles? Take so many tests? Write so many pages?
- What are the learning outcomes that you want them to demonstrate? What is the most efficient and welcoming way of demonstrating that learning? Can they do it without the pressure of a timed test?
- Consider building metacognition into your assignments



**“It’s the repetition of affirmations that leads to belief. And once that belief becomes a deep conviction, things begin to happen.”**

*–Muhammad Ali*

**Moving beyond accommodation  
around autism and other  
neurodiversities in a writing classroom**

**Jon Argaman, Lecturer in Critical Writing,  
Marks Family Center for Excellence in Writing  
University of Pennsylvania**

- Jon Argaman is a Lecturer in Critical Writing whose research and teaching practice focuses on neurodiversity in college-level writing. Since joining the Critical Writing Program in 2014, he has worked to build tools and strategies for creating more accessible, differentiated classroom environments for a neurologically diverse range of students. He currently serves as faculty co-advisor of the student organization, Advocates for NeuroDiversity. His other research interests include strategies for universal design, and the intersection of executive function and the writing process.
- He will present today on moving beyond accommodation around autism and other neurodiversities in a writing classroom.



# Getting away from diagnosis

While my own research is in autism and other neurodiversities as they show up in a college writing classroom, one of my strongest takeaways is that, as a teacher, you can't be in the position of trying to 'diagnose' students, and you don't want to be: teachers aren't qualified for that, and it reinforces a deficit and difference model that is unhelpful.

Instead, the goal is to recognize common hard points in a curriculum, and as much as possible, build curriculum and teaching strategies that work without having to single out and 'accommodate' individual students.

# Neurodiversity

The neurodiversity paradigm guides a lot of my thinking. In its simplest form it tells us that there is *diversity* in the way people's brains work and as a teacher you can't easily know in the beginning what kind of diversity is in a given room, and so you want strategies that meet as wide a range of needs as you can without having to individually diagnose people.

# Autism and other neurodiversities

One of the main conclusions of the literature on autism and college-level writing is that there are very very few issues that are *unique* to autism.

Autism might ‘show up’ in a writing classroom in a number of ways, most commonly: auditory processing issues, ‘social cue’ issues, struggles with executive function/deadlines, struggles with context or writing to an audience.

But none of those are unique to autism. It would be more accurate to say that these issues are *more common* among autistic students. Or, put differently, curricula that are built around neurotypical assumptions about information processing create challenges for many students, but autistic students are *more likely* to struggle to overcome those issues.



# Double Empathy

The finding from the literature that's most distinct to autism is difficulty identifying, empathizing with, and writing to an audience, but even here it would be more accurate to say that the issue isn't autism as such so much as difficulty imagining an audience that is very different than oneself. A neurotypical writer would probably also struggle to write to an autistic audience. This is known in some circles as the "Double Empathy Problem".

"I would here posit that in the same manner that neurotypicals find autistics mysterious, so too do autistics find neurotypicals mysterious. Predicting the expectations of a mysterious audience is indeed a difficult task, a difficulty that would seem understandable—and yet when audience issues occur on the part of the autist, the result is considered pathological." — M. Remi Yergeau

# Curricular interventions that have helped

- Basic Universal Design principles, especially providing materials visually, verbally, and in writing wherever possible.
- Genre analysis as a way of making implicit social expectations around writing explicit.
- Avoid cold-calling and linking ‘participation’ to how much someone talks.
- Lowering the stakes of group work.
  - Where possible, many autistic students (and many other students) do well in group work that has structured roles, e.g. scribe, spokesman, etc.
- Rejection-sensitive dysphoria-informed feedback.
- ‘Same paging’. A neurodiversity perspective encourages us to view making sure everyone understands what they’re being asked to do as a hard problem (and it’s made me humble about assuming I know how to write good directions)
  - Repeated checks for confirmation about understanding instructions in particular.

# Growing edges

- Sensory issues: they're common, for every sensory issue there is an equal and opposite sensory issue. Some do well with quiet, some need background noise, and so on. At minimum, we encourage students to do what they need - move around, wear headphones, etc., but the constraints of a physical classroom make this a difficult problem.
- Audience empathy - we aim teach students to write to 'diverse' audiences, but for all that we've named the double empathy problem, writing to neurodiverse audiences is a relatively unexplored frontier.



# **ADHD in the College Writing Classroom**

Creating opportunities for student leadership through self-advocacy

**Amanda DiLodovico, Lecturer in Critical Writing,  
Marks Family Center for Excellence in Writing  
University of Pennsylvania**

- Amanda DiLodovico's teaching practice focuses on neurodiversity in the writing classroom and the creation of equitable learning outcomes for all undergraduate writers. She currently serves as faculty co-advisor of the student organization, Advocates for NeuroDiversity. Since coming to Penn in 2018, she has created disability-centered pedagogical strategies for the writing classroom that stem from prior research in Disability Studies, as well as Dance Studies and dance pedagogy. Her other research interests include crip theory in the classroom and embodied writing practices.
- She will present today on identifying, analyzing, and transforming curriculum for students with ADHD in the college writing classroom.

# Identifying

- ~ Never an expectation for a student to disclose
- ~ Identification rather than Diagnosis

Some patterns that emerge:

- difficulty meeting deadlines
  - ◆ not submitting assignments and then having them pile up
- trouble starting an assignment
  - ◆ feeling overwhelmed by the amount of writing to be done or articles to be read
- avoidance or not remembering (short term memory)
  - ◆ missing class and/or not respond to emails



# Analyze

Crip time in the college writing classroom (Wood 2017)

- The 'time' chosen to complete an assignment or 'process' an idea is often arbitrary, designed for neurotypical thinkers
- The applications center on rethinking synchronous time and deadlines

Sensitive dysphoria / receiving criticism (Beaton, Sirois, Milne 2022)

- Undergrad students (18+) with ADHD tend to be in situations where commentary about behaviors is perceived and at times intended as criticism, causing negative feelings of self-worth

# Some Transformations

Body doubling (Ables, 2022)

- Co-working model
- 1-1 practice
- Classroom studio time

Sensitive dysphoria pedagogical approaches (Beaton, Sirois, Milne 2022)

- Options, not expectations

Mobile deadlines (DiLodovico, *forthcoming*)

- Two-day window: offers time for reminders
- Stress relief
- strategy to lessen perceptions of criticism

# Further Transformations in Process

- A challenge remains around how to most effectively scaffold the writing process and relay the pedagogical importance of such steps. We have worked to integrate the following to think more about ways to create excellent outcomes for students that offer ways to approach scaffolded content - here is how we are thinking through it:

◆ PowerNotes - browser extension



# PowerNotes Sample

## Current Events and Impacts 19

“U.S. Department of Education study found that more than 70 percent of students arrested in school-related incidents or referred to law enforcement are black or Hispanic.”

[The School-to-Prison Pipeline | Learning for Justice](#)

Chiariello, E., L. A. Williamson, and W. Wolfram. “The School-to-Prison Pipeline”. *Learning for Justice*, <https://www.learningforjustice.org/magazine/spring-2013/the-school-to-prison-pipeline>.

who is being affected

“Our former president, Obama, publicly stated that schools that implement policies that disparately impact students of a particular race, color, or nationality violate Title VI of the Civil Rights Act of 1964.”

[The School To Prison Pipeline - RED - Stop Recidivism](#)

Lewis, C. “The School To Prison Pipeline”. *RED - Stop Recidivism*, 2 June 2022, [https://stoprecidivism.org/blog/the-school-to-prison-pipeline/?gclid=Cj0KCQjw48OaBhDWARIsAMd966BjgPdviRsiFjRc4l2flbgiH7ljwAtGbKPasmc10XcvYlr3yaDgmYaAoxWEALW\\_wcB](https://stoprecidivism.org/blog/the-school-to-prison-pipeline/?gclid=Cj0KCQjw48OaBhDWARIsAMd966BjgPdviRsiFjRc4l2flbgiH7ljwAtGbKPasmc10XcvYlr3yaDgmYaAoxWEALW_wcB).

“Zero-tolerance policies have led to larger numbers of youths being “pushed out” (suspended or expelled) with no evidence of positive impact on school safety (Losen, 2014).”

[Restorative Justice in U.S. Schools: A Research Review - ED596786.pdf](#)

“zero-tolerance polices led to an increased reliance on suspensions and expulsions for minor disciplinary infraction”

(PDF) [Juvenile Court Referrals and the Public Schools: Nature and Extent of the Practice in Five States](#)

“Many students under strict zero-tolerance policies are punished without a second thought. This type of disciplinary procedure has been proven in research to have an overall negative effect on students, and a disproportionately negative effect on minorities.”

[Zero-Tolerance Policies and the School to Prison Pipeline — Shared Justice](#)

Fromke, E. “Zero-Tolerance Policies and the School to Prison Pipeline”. *Shared Justice*, Shared Justice, 18 Jan. 2018, <https://www.sharedjustice.org/domestic-justice/2017/12/21/zero-tolerance-policies-and-the-school-to-prison-pipeline>.

Sort ByTopic▼

Manage Topics

☐Intro4

☐History of Problem7

☐Current Events and Imp...19

☐Solutions Proposed9

Content Filters <

Card Filters <

Comment Filter <



# New Frontiers

Print ableism

Sensory processing

Obsessive Compulsive Disorder

Logocentrism

Privilege of speech

Time - defying academic time!

# Open Discussion

- Do you have any additional or revisions? Ways of enhancing classroom or assignment activities?



**Thank you!**

**Valerie Ross [vrross@sas.upenn.edu](mailto:vrross@sas.upenn.edu)**

**Amanda DiLodovico [diamanda@sas.upenn.edu](mailto:diamanda@sas.upenn.edu)**

**Jon Argaman [jargaman@sas.upenn.edu](mailto:jargaman@sas.upenn.edu)**

**The Critical Writing Program  
[critwritsem@groups.sas.upenn.edu](mailto:critwritsem@groups.sas.upenn.edu)**