From Inclusion to Equity: The Future of Universal Design for Learning

The foundations of UDL

The foundations of UDL

The practice of UDL

The foundations of UDL

The practice of UDL

The future of UDL

The foundations of UDL

Some people face more barriers than others

Retrofitting is highly problematic

Universal Design

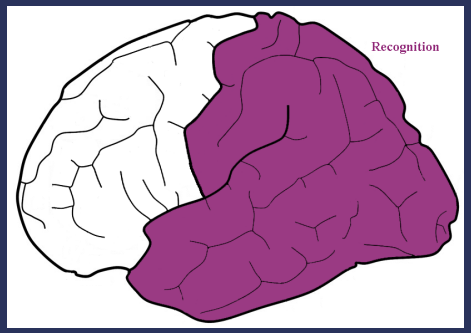
Universal Design

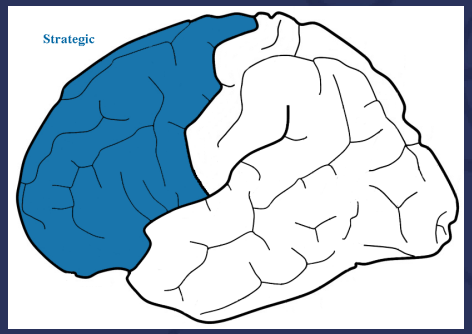
Critical For Some…..

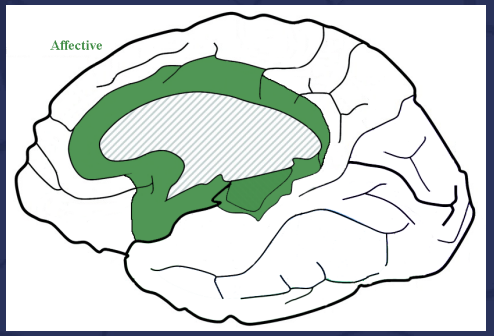
...better for Everyone

But what is Universal Design for Learning?

A research-based framework for identifying individual differences in learning

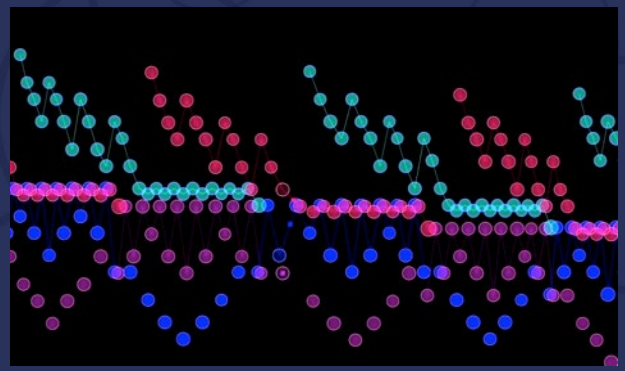






..and designing learning opportunities that meet the challenge of diversity

I. Provide Multiple Means of Representation	II. Provide Multiple Means of Action and Expression	III. Provide Multiple Means of Engagement
Perception	Physical action	Recruiting interest
Language, expressions, and symbols	Expression and communication	Sustaining effort and persistence
Comprehension	Executive function	Self-regulation



by reducing barriers for some and increasing options for all

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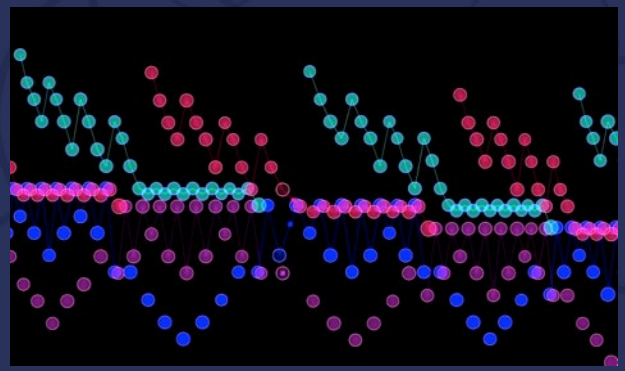


UDL Takes Advantage of

Advances in learning sciences

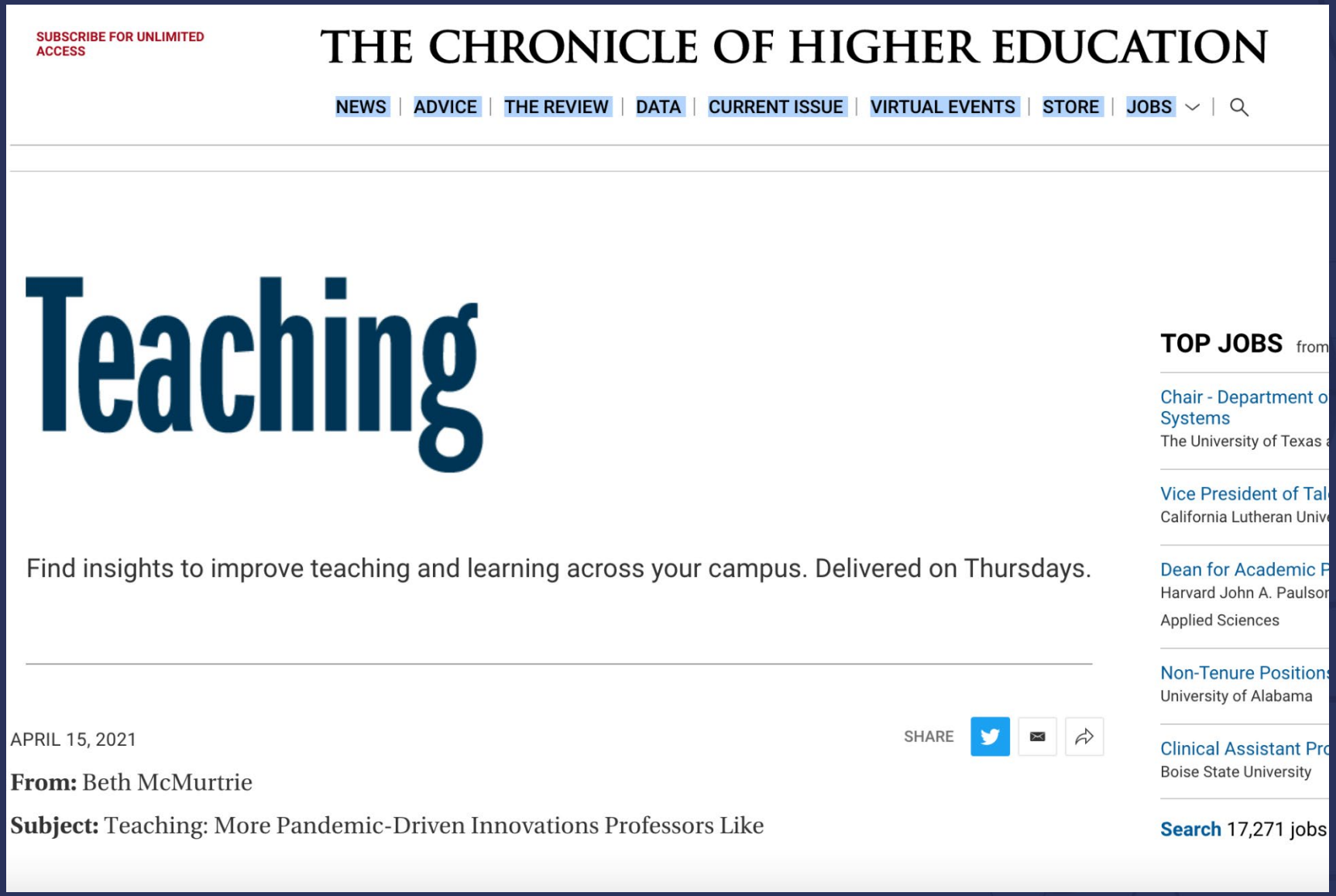
Advances in learning technologies

National Policy: Higher Education Act

Section 103(24) **UNIVERSAL DESIGN FOR LEARNING**. The term 'universal design for learning' means a scientifically valid framework for guiding educational practice that—

(A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and

(B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.



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From: Beth McMurtrie

Subject: Teaching: More Pandemic-Driven Innovations Professors Like

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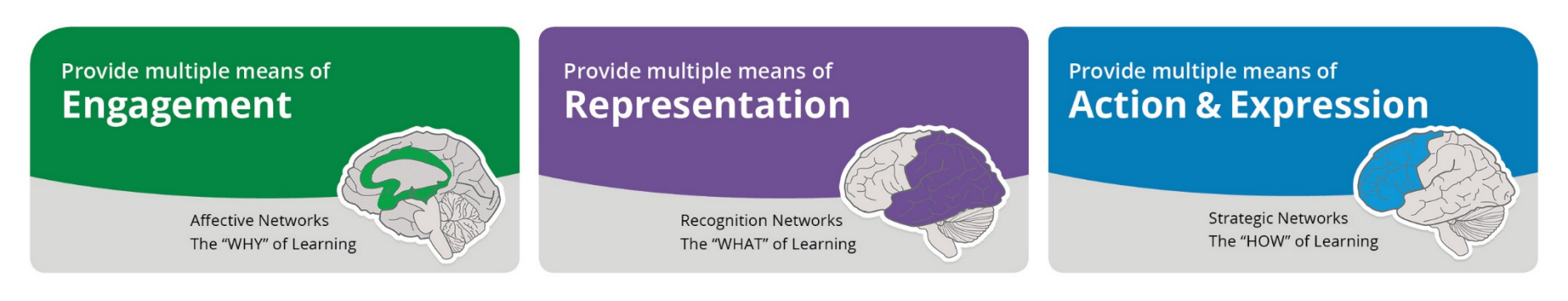
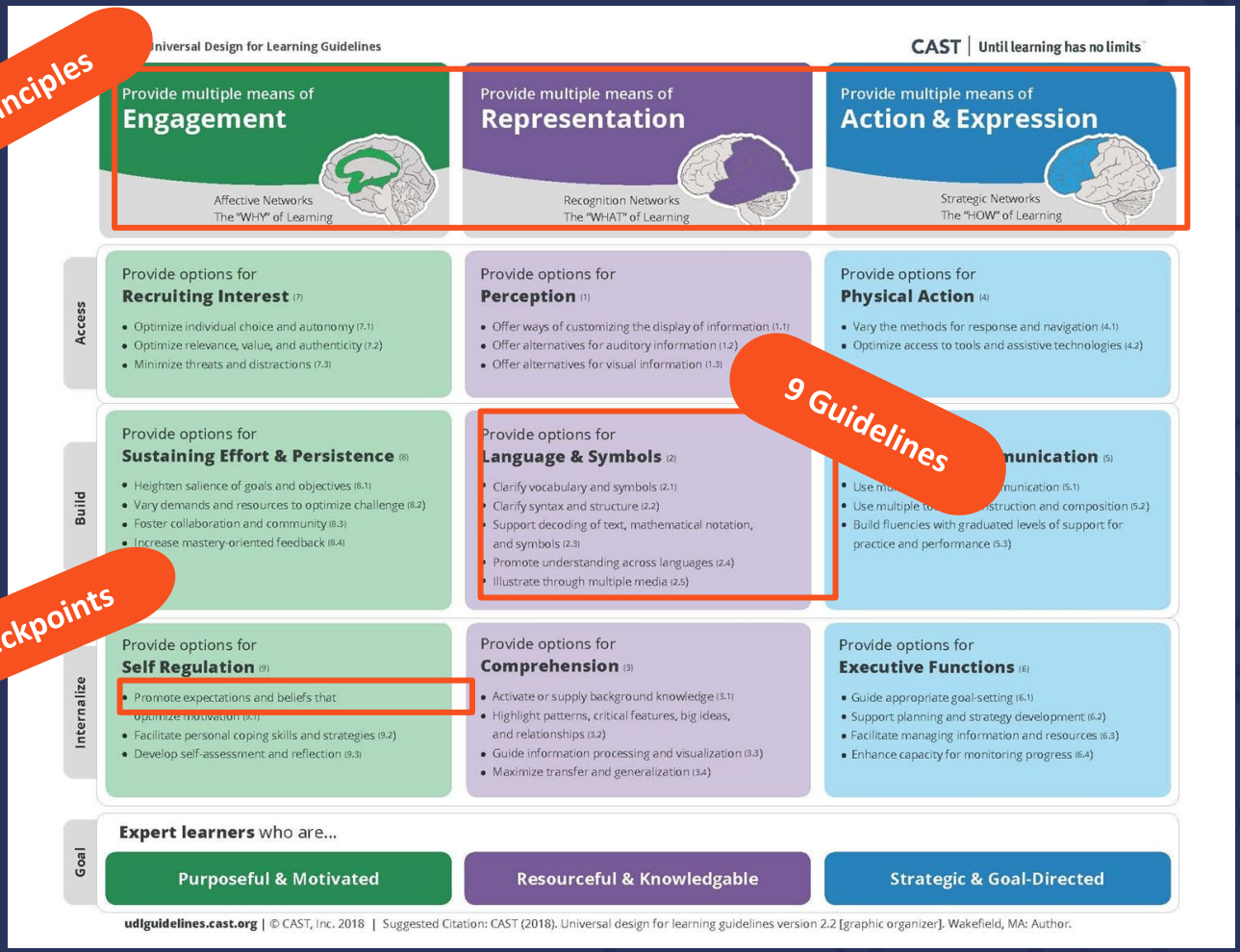
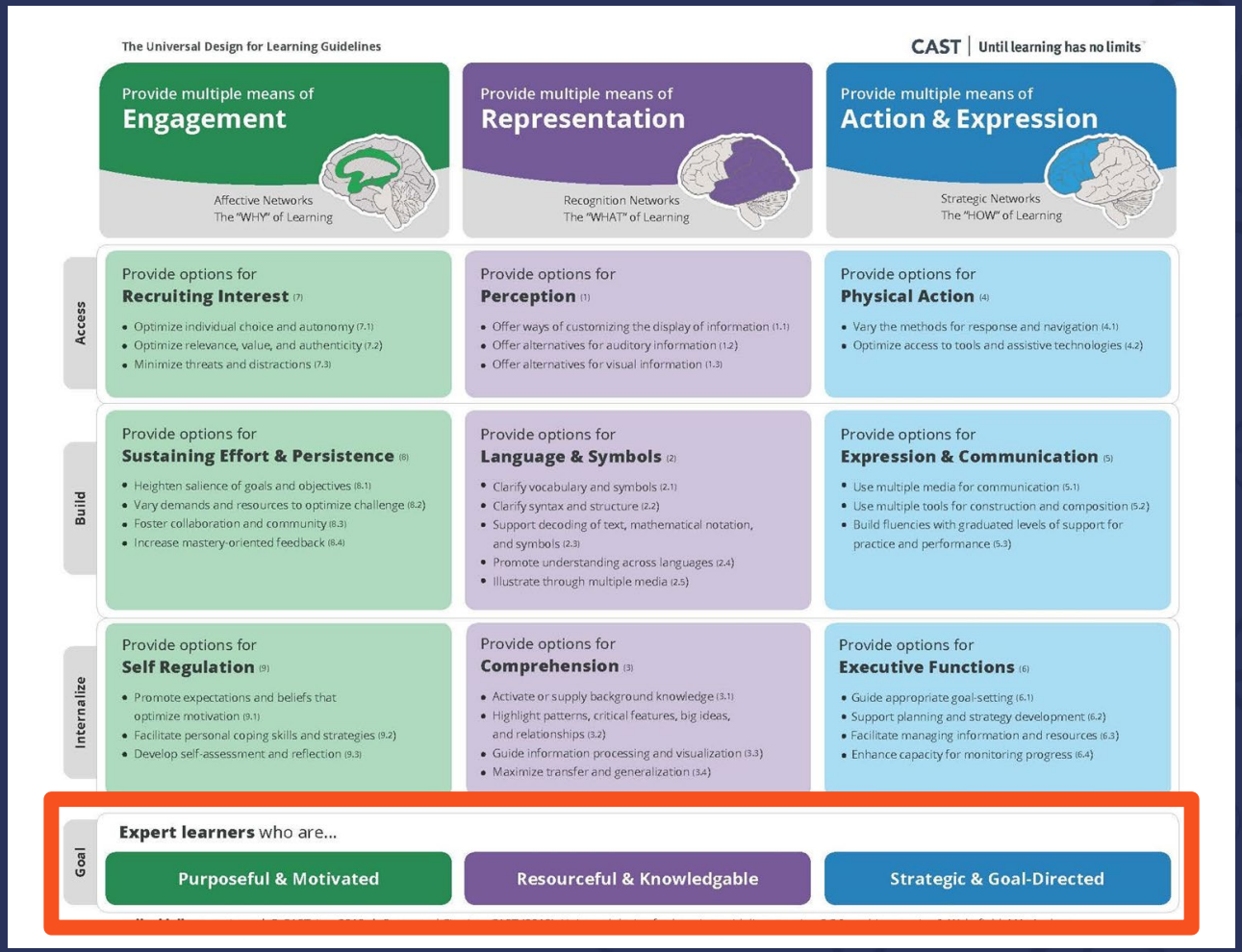
- As a result, when professors designed their newly online or hybrid courses this past year, they were often asked to use a framework known as the Universal Design for Learning, which takes into account students' diverse learning needs.
- Professors found themselves narrating PowerPoint slides, for example, or captioning video lectures and creating transcripts of those lectures for students with hearing or visual impairments. Those principles proved helpful, too, for students with technology challenges, such as limited bandwidth, that prevented them from streaming live lectures. Instead, they were able to read transcripts afterward. All in all, readers said, those strategies offer a valuable and needed approach toward teaching materials.
- "For years folks have argued that learning how to record/Zoom/caption/transcribe was too hard for just a few folks, but most of us were able to make it happen when we shifted online in the spring/fall," wrote Molly Metz, an assistant professor of psychology at the University of Toronto. "Now that so many more people have these skills, it is simply not acceptable to not make more things available. Frankly, I am ashamed I did not make an effort to learn these things sooner. They benefit *everyone*, not just students with registered accommodations, not just practically but emotionally."

3 Principles of UDL

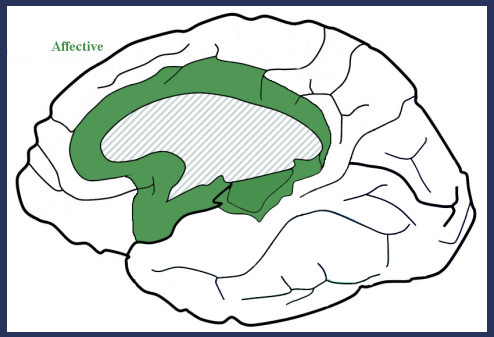


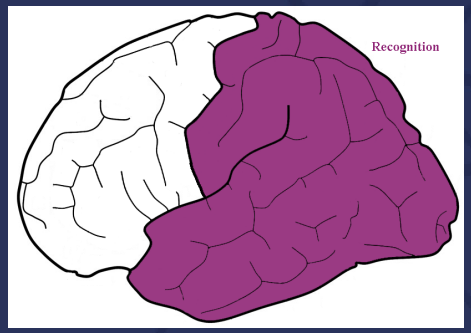
Necessary for *some*, good for *all*

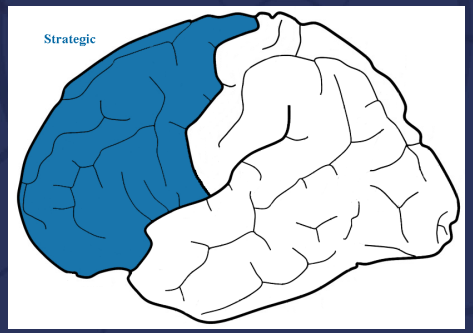




Three Primary Sources of Variability in the Nervous System



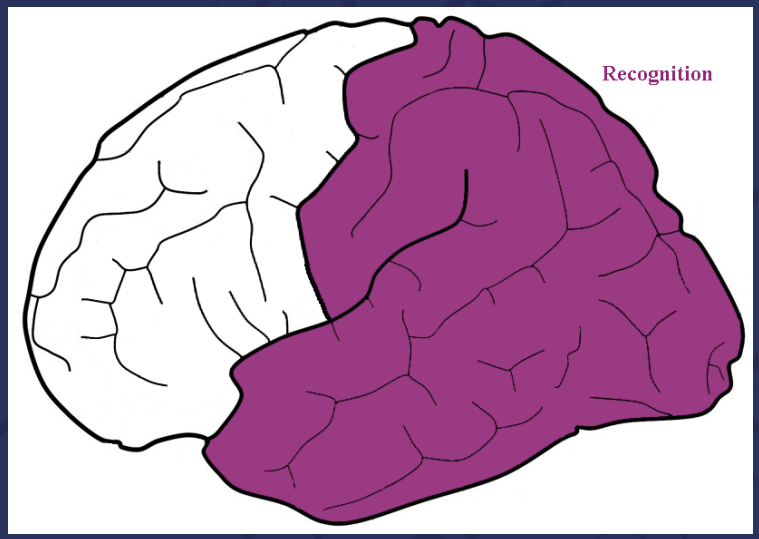


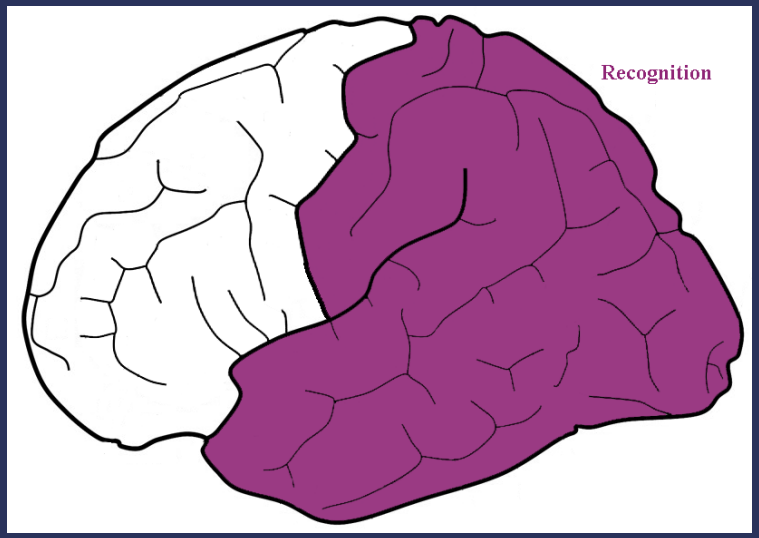


Recognition Cortex

Constructs an internal model of the environment you live in.

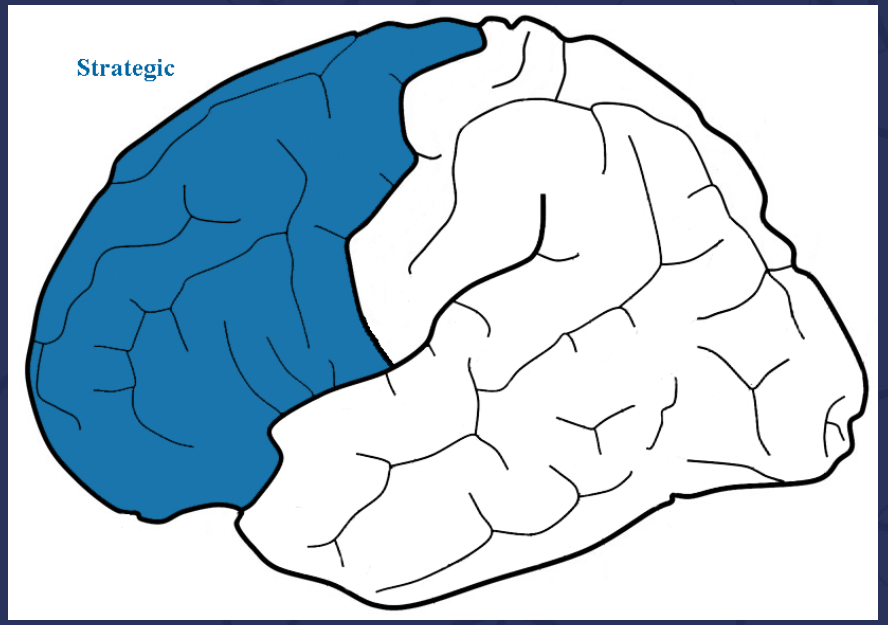
Allows you to recognize what is regular and what is irregular so that you can better predict the future.




Recognition

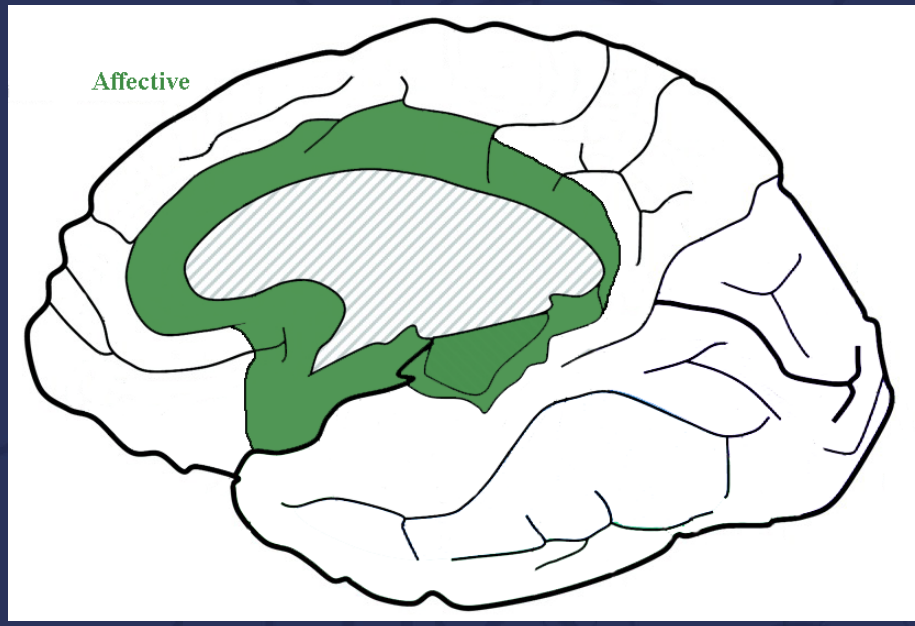
Strategic (Frontal) Cortex
How to DO that?

Allows you to predict, plan, organize and execute effective action in the environment

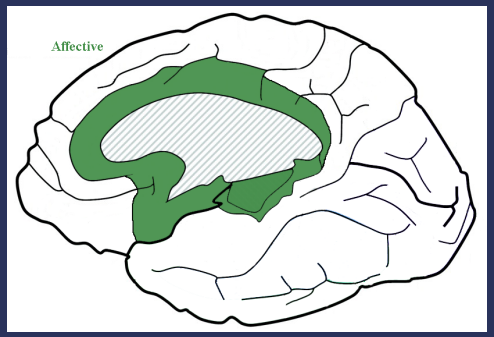


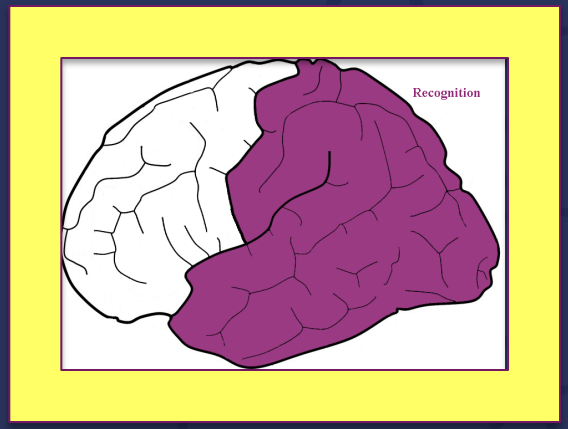
Affective (Emotional) Networks
What's Important?

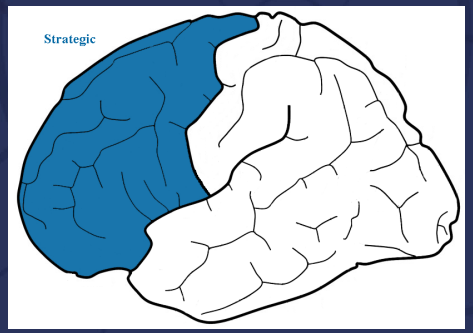
Allows you to predict and respond to relative values so that you can optimize what you attend, search, choose and remember.



Addressing the Spectra of Individual Differences The UDL Framework and Principles







- Example barriers

- Reading
- Writing a 5 paragraph essay
- Sitting through a lecture.

Provide multiple means of
Representation

Recognition Networks
The "WHAT" of Learning

Provide options for
Perception (1)

- Offer ways of customizing the display of information (1.1)
- Offer alternatives for auditory information (1.2)
- Offer alternatives for visual information (1.3)

Provide options for
Language & Symbols (2)

- Clarify vocabulary and symbols (2.1)
- Clarify syntax and structure (2.2)
- Support decoding of text, mathematical notation, and symbols (2.3)
- Promote understanding across languages (2.4)
- Illustrate through multiple media (2.5)

Provide options for
Comprehension (3)

- Activate or supply background knowledge (3.1)
- Highlight patterns, critical features, big ideas, and relationships (3.2)
- Guide information processing and visualization (3.3)
- Maximize transfer and generalization (3.4)

- Not all students can see or hear presentations, videos, etc.
- Not all students can read text fluently, or learn information optimally in English, etc.
- Not all students share the same background knowledge, strategies for study, etc.

Provide multiple means of
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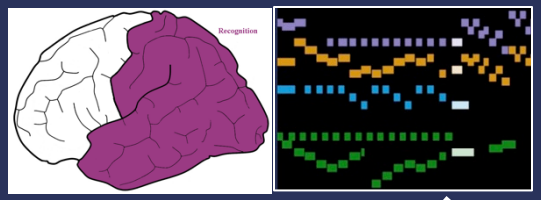
- Options for perceiving information; visual options, auditory options, complexity?
- Options for vocabulary, symbols, English language, illustration
- Options for background knowledge, highlighting critical features, study guides

Universal Design for Learning



I. Provide Multiple Means of Representation
Perception
Language, expressions, and symbols
Comprehension

Using Multiple Means of Representation

In my own course: T-56o

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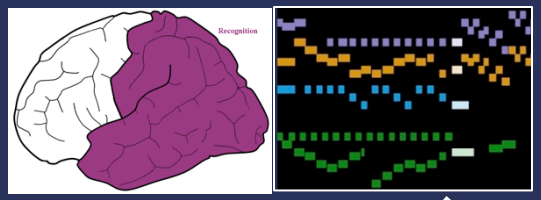

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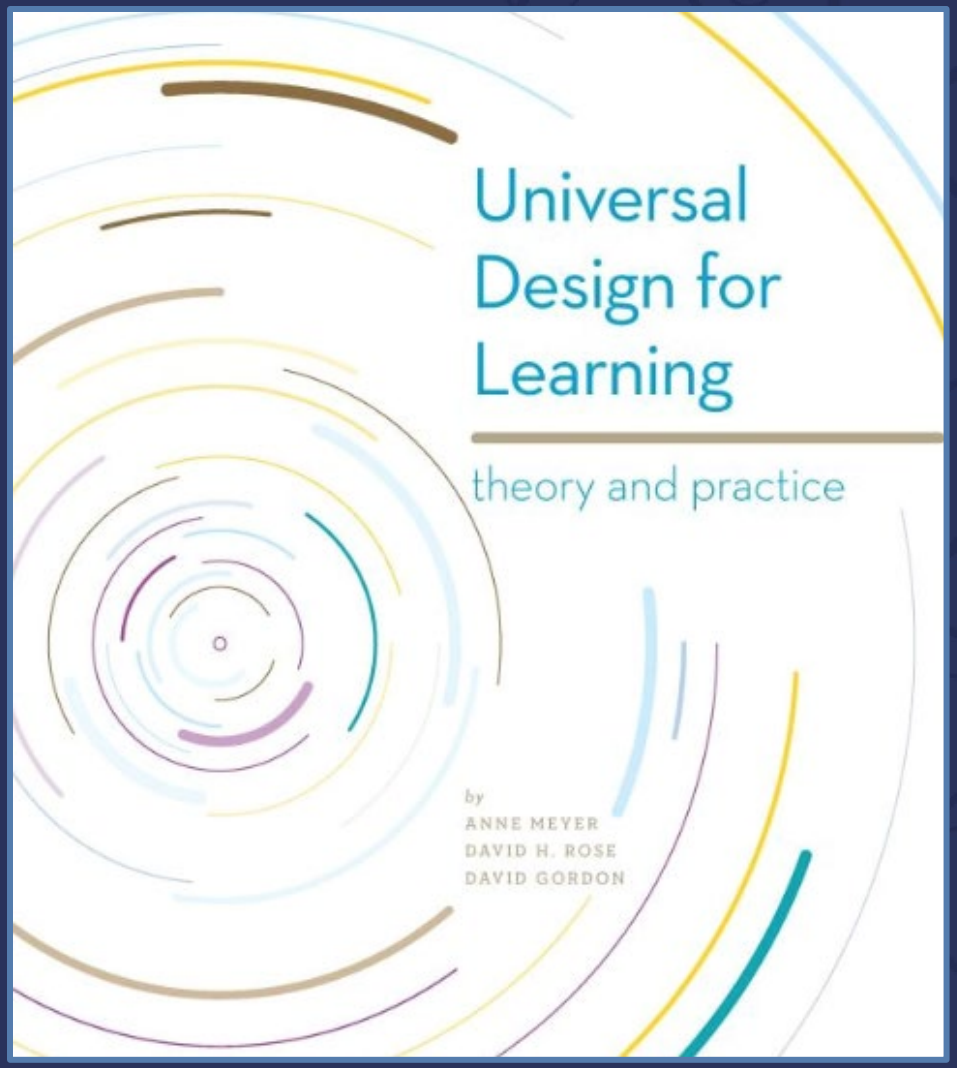

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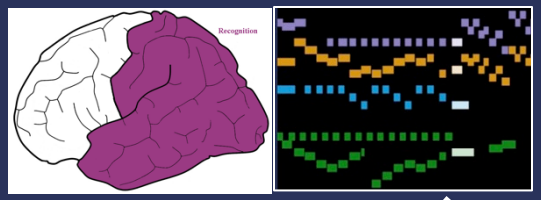

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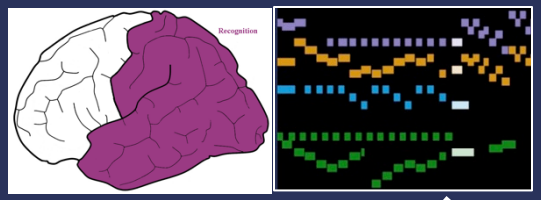

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Accessible Multimedia Slides (posted before class)

Full video (captioned) available on the web 24 hours later

Crowd-sourced note-taking

- **Recorded lectures and classes.** This year many, *many* instructors found themselves recording short lectures for their students to watch before class. Their aim was to spend valuable class time in discussion or on group work, rather than lecturing into the void on Zoom.
- As it turns out, those recordings have proved enormously helpful in other ways. Several readers said that their students liked being able to replay lectures, perhaps to review material they'd missed or had trouble understanding the first time around. Similarly, many faculty members recorded class sessions this year, so they could be shared with students who were in isolation or had to miss class for other reasons. The professors suggested that this innovation stick around, too, given that students will continue to have scheduling conflicts after Covid, such as when athletes need to travel for games.

Bob Gibbons,
Sloan School of Management
MIT

No readings.

Before Class: Short Video Lectures posted

- For each video, discussion question added
- Students answer half the questions
- Short answers, 24 hours ahead.

During Class:

- Prof. picks some answers to discuss,
- Sets up an order for best discussion
- Benefit: Both student and teacher have time to reflect and plan ahead

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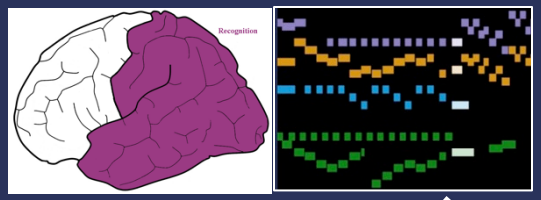

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March 1: Individual Differences in Neural Networks (2)
Topic: Strategic Networks and Executive Function
Notes compiled by Michelle Berkovitz

Ruth as an example of individual differences:

- She has perfect pitch.
- Studies have shown that people with a perfect pitch have an enlarged area devoted to perfect pitch right along the temporal auditory cortex.
- There's a very large area on the left side, but small area on the right side devoted to perfect pitch, which seems to be characteristic of people who have perfect pitch.
- A person with perfect pitch can identify a pitch as exactly b-flat, for example. They automatically code in pitches rather than melodies (as most people do).
- People with perfect pitch are oftentimes musicians. In most cases, this characteristic is an asset to the music profession.
- Most people are able to recognize relative pitches, their patterns, but not their absolute pitch.
- Ruth would see Professor Rose as disabled in not having this ability.
- Context is everything! A person's disabilities can be seen as an interface with their context.
  - For example, when in Church, Ruth will just not sing because fighting against the incorrect pitches that others are singing is too frustrating and overwhelming.
- Is perfect pitch all biology? All learning? It's very difficult to tell.
  - Studies have shown that if people with perfect pitch are not living in an environment or culture where pitch is important, this skill will decline or be lost. Conversely, in cultures that value pitch, these skills are found to have an even more elevated perfect pitch.

Strategic Networks

- In schools we tend to be more concerned with children's abilities to act strategically.
- Victorian Picture from first day of class – Eye movement recordings indicate the different strategic plans we use when looking at images.
  - Why are these plans so different?
    - You make a strategy depending on the question. Questions like: How are the people related? When does this scene take place?

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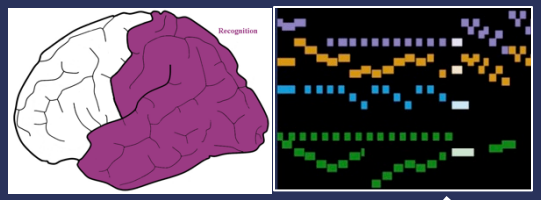

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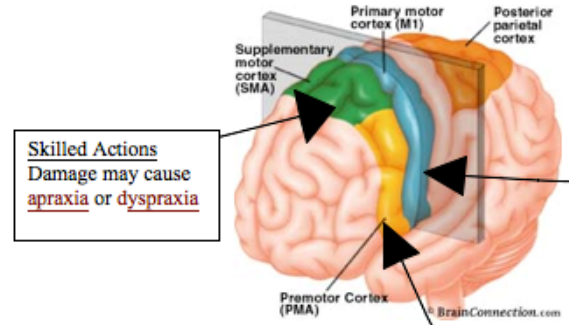
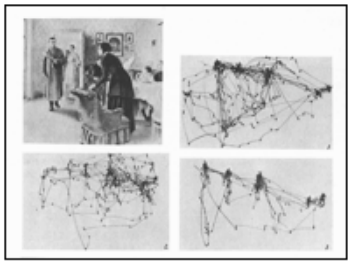


Skilled Actions
Damage may cause apraxia or dyspraxia

Intentional Actions
Primary Motor Cortex – neurons run down the spine; damage may lead to paralysis

Strategic Actions
Premotor cortex
For organized/planned movement or systems of movement

Strategic Action Example: Involving the Visual, Motor, and Prefrontal Cortex



Remember looking at the picture at left in class? The other line-dot pictures are recordings or mappings of a person looking at the same picture. Why the different 'looking strategies?' Because of the different 'contexts' in which the person was asked to look at the picture. (i.e. *How many people are in the photo?* vs. *What kind of room is it?*).

What about an infant's looking strategies?

This is a baby at one month (top) and two

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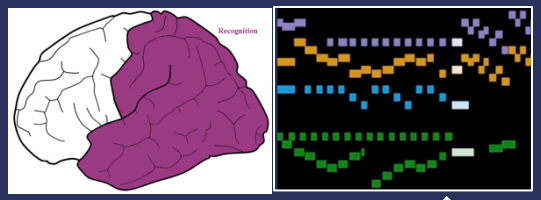

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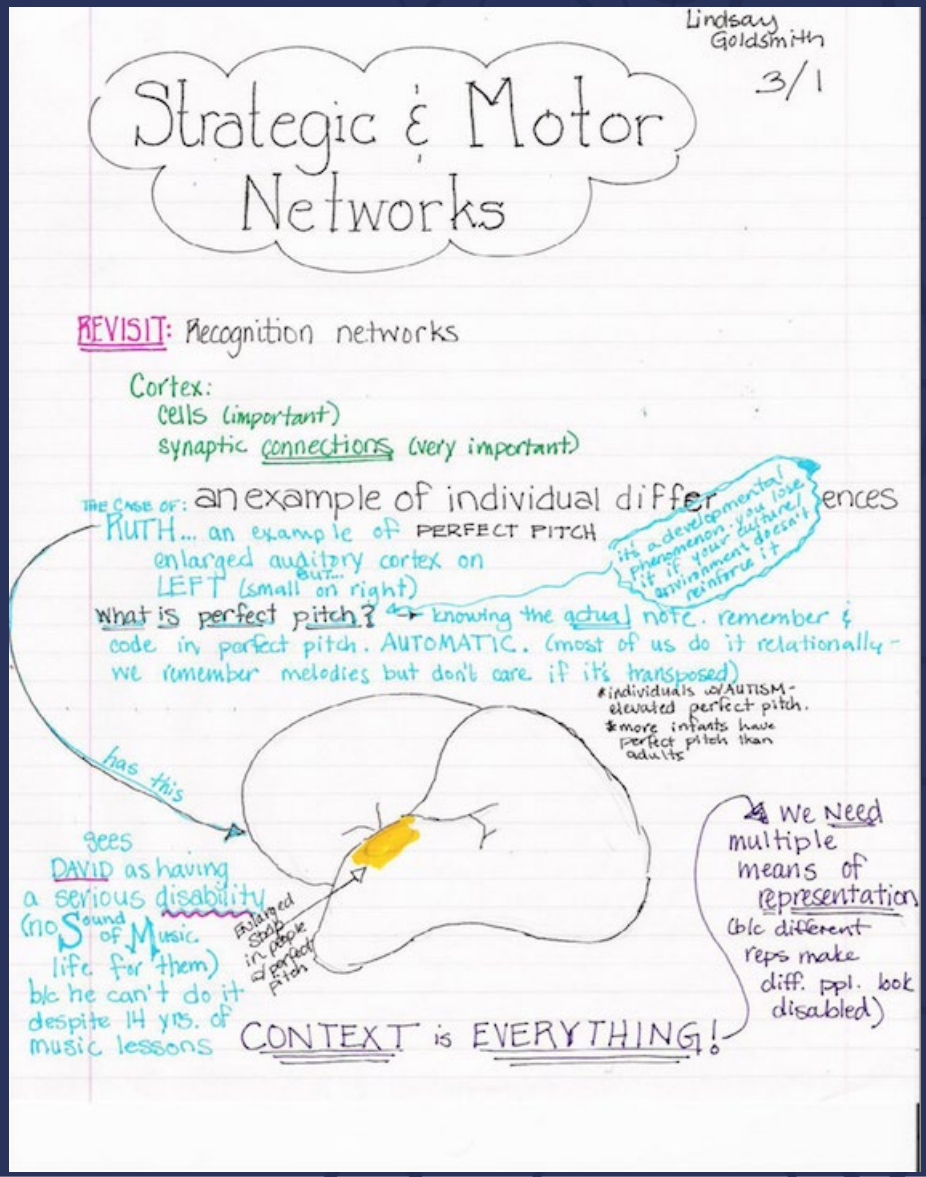

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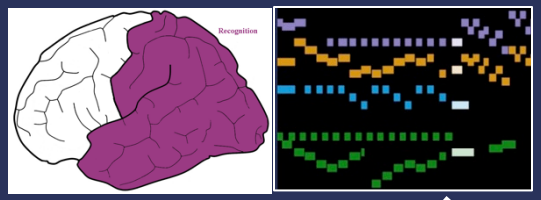

- I. Provide Multiple Means of Representation
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  - Language, expressions, and symbols
  - Comprehension

Lecture Notes for February 14, 2006 – Valentine's Evening

The Author

Hi. My name is Chris. In case you missed it, or simply want to relive it – here's what happened on Tuesday night:

I am wearing a blue shirt. It's from the State of New Jersey - Department of Central Services. I stole it form my mom's laundry basket. I also am wearing jeans and new boots.

Dr. Rose enters the room at 7:02 pm.

I am seated next to Kati Blair. She wears a black top with green pants. And glasses. And a bracelet. And she holds out her necklace, and pulls out a green undershirt.

Kati

Kati asks me for gum. She's out of luck.

It is 7:05.

Kati says, "I forgot we are doing something fun."

Sam sets a bag down on the desk across from me. I suspect here are treats in this bag. Because it looks like there are a bunch of two liter bottles of something green.

Maia has been asked to move to the seat next to me.

Carolina

Carolina takes a picture. Perhaps she is taking notes as well. I have no camera. Yes I do!!! My cell phone!

We begin. It is 7:09.

The Sams are arranging people. It is mysterious. Dr. Rose says to make nametags. There is shuffling and ripping.

There will be drinking involved in tonight's activity, I think. People are passing out cups and opening soda. Kati puts away here laptop and now I am worried. I'd hate to spill Sierra Mist on my Mac.

Dr. Rose: "We are gonna talk about what neural networks are, how they operate." He noticed it was hard to teach neural networks when he first started teaching about them.

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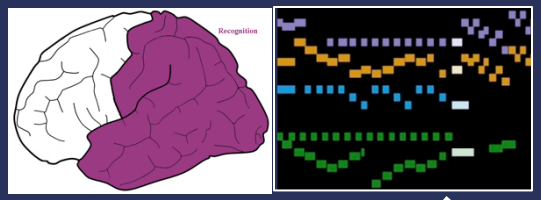

I. Provide Multiple Means of Representation
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Sweet Neuron Nectar

The three sections of Larsen G08 are divided into three layers of neurons. The left side of the class is output. The middle section is the middle layer. The right side is input. We will model neurons. However, the best way to do it would involve spitting on each other. The way it would work is that I would spit at other neurons and get them worked up so they fire. Firing happens when we receive enough stimulus to excite our axons. Instead of spitting, we raise our arms and wiggle our hands.

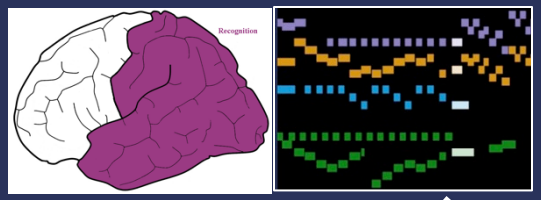
(There is computer trouble. Dr. Rose doesn't know his password. I am tempted by my Schweppes. But I shouldn't drink. The computer problem is solved.)

We learn that there is constant neural firing going on in our brains. Constantly. It's like background noise. We practice random firing. We giggle. (For tonight's experiment we will reduce background firing.) Any change in this firing is information – an increase, a decrease ~~it~~ reflects a change in the Nervous System's state. Neurons make information by decreasing or increasing their firing.

Tonight, we will only fire when irritated.

Normally, as a network, we all would be connected (a typical neuron has 10,000 connections).

Making Lectures More Universal



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Class notes
3/22/05

- Begins speaking of condition where thin layer of cortex/brain surrounds empty space: Orange Rind syndrome. Even with O.R., brain may operate with surprising efficiency. Drs. had expected severe disabilities.
- Brain is integrated and adaptive, to a large degree, can compensate and adjust to deficiencies.

"I don't know how to tell you this, but it looks like you have a brain the size of a walnut."

- Build-up of Cerebral-Spinal Fluid can cause problems for developing brain, e.g., hydrocephalus.
- Important question: What are strengths in face of recognized weaknesses?
- Dx is not an exact science in all cases.

"What about that! His brain still uses the old vacuum tubes."

- David read Auden poem (anti-war message): *Ode to the Dioscephalon*
- Discussion of doctoral thesis study of children with only right or [redacted]
- Children functioning surprisingly well.

"Mama and I fixed a lovely dinner. I used the right side of my brain, and she used the left side of her brain."

- Some otherwise compromised compensate by developing advanced prosodic recognition. Child w/right brain only very superior abilities.

Provide multiple means of
Action & Expression

Strategic Networks
The "HOW" of Learning

Provide options for
Physical Action (4)

- Vary the methods for response and navigation (4.1)
- Optimize access to tools and assistive technologies (4.2)

Provide options for
Expression & Communication (5)

- Use multiple media for communication (5.1)
- Use multiple tools for construction and composition (5.2)
- Build fluencies with graduated levels of support for practice and performance (5.3)

Provide options for
Executive Functions (6)

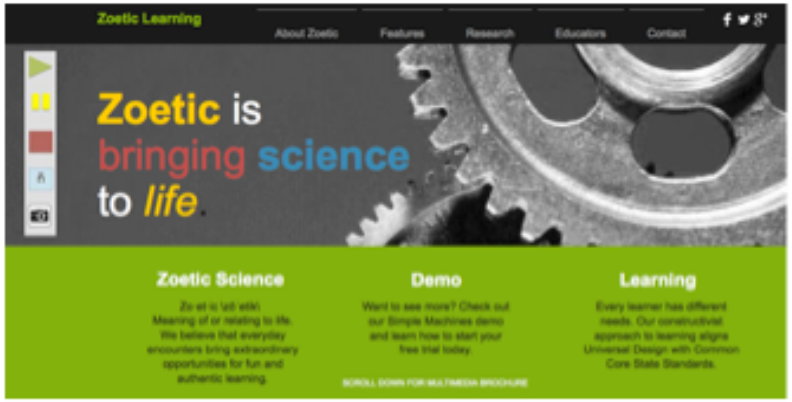
- Guide appropriate goal-setting (6.1)
- Support planning and strategy development (6.2)
- Facilitate managing information and resources (6.3)
- Enhance capacity for monitoring progress (6.4)

- Options for physically participating in class activities?
- Options for expressing what has been learned: writing, presenting, videos, simulations, projects, interactive gaming?
- Options for planning, organizing, integrating, reflecting: executive functions?)

T-560 Final Project

Deliverables and Products

1) Design Teams: Final Project



(Individuals take leadership on four distinct components)

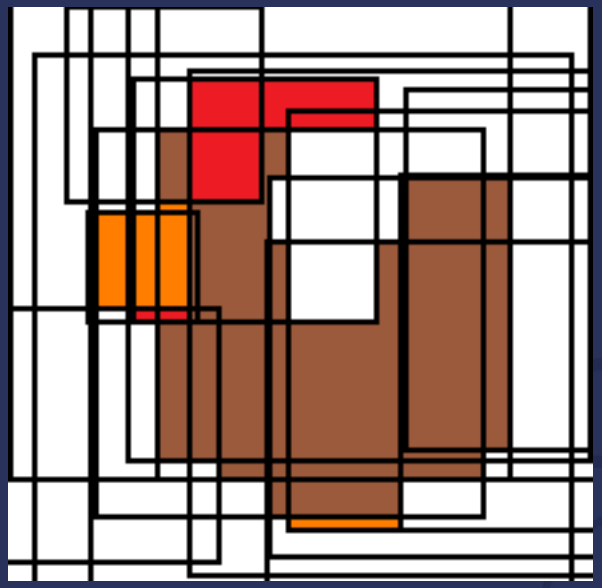
Research Paper | Working Prototype | Implementation Plan | Marketing Media

Scaffolding the Project: Rubrics

Component #3: Multimedia Brochure/Video

	Does not meet expectations	Meets some of the expectations	Meets all expectations	TF Comments
Presentation				
Goals and Product Description	The educational goals of the product are not included or are unclear; the description of the product and who/what it is designed for is not included or is unclear	The educational goals and description of the product are included, but may lack clarity, specificity or depth; potential users have some idea of what they would be receiving	The educational goals and description of the product are clearly shown throughout the video in an engaging way; potential users know exactly what they would be receiving	
Key Features Highlighted	None of the key features of the product are highlighted; no connections to UDL guidelines/checkpoints are made; the brochure/video (or highly detailed storyboard) is vague and fails to engage the viewer in a meaningful way	The key features are highlighted, but may lack specificity or clarity; connections to UDL guidelines/checkpoints are made at times; the brochure/video (or highly detailed storyboard) is mostly engaging and clear; schools and districts might consider using this product	The key features are well chosen and highlighted with vivid detail and supporting examples; connections to UDL guidelines/checkpoints are made throughout; the brochure/video (or highly detailed storyboard) is engaging and clear throughout; this product is a must-have for any school or district	
Incorporation of the UDL Engagement Guidelines to address individual differences:				
Guideline 7: Provide options for recruiting interest	Fails to demonstrate how the product provides options for recruiting interest; these	Does a good job of highlighting the ways in which the product provides options for recruiting interest to address learner	Does an outstanding job of highlighting the myriad ways in which the product provides options for recruiting interest	

Scaffolding the Group Process



Team Learning Assessment Rubric

]

T560

Based on R. Elmore's course on supporting teachers for instructional change

T-560 Semester long project

Goal: In teams of 4-5, develop an educational intervention of their choice that supports robust disciplinary thinking within a particular content area for *all* students. The final product that consists of four interrelated parts:

1. Working prototype or highly detailed mock-up of the intervention
2. Multimedia "brochure"
3. Research white paper
4. Implementation guide

Barriers

- Challenging group dynamics that need to be addressed early on
- "Group think" could take over and lead to teams not pushing themselves
- Logistics of working in a team

Group Learning Rubric

Domain/Level	Emergent	Novice	Proficient	Advanced	Comments
Acknowledging Individual Contributions	>Individual members feel their views are not addressed or seldom addressed in group discussions >Individual members feel the final product does not, or only partly, reflects their contribution	>Individual members feel their views are sometimes addressed in group discussions >Individual members feel the final product sometimes reflects their contribution	>Individual members feel their views are usually addressed in group discussions >Individual members feel the final product usually addresses their contribution	>Individual members change their views as a result of other members contributions >Individual members acknowledge the contribution of other members to their learning	
Addressing Divergent/Convergent Points of View	>Disagreements among individuals are not addressed >Individual members feel reluctant or unsafe in articulating views that are divergent from those of other members	>Disagreements among individuals are sometimes addressed >Individual members express divergent views reluctantly	>Disagreements are openly discussed and acknowledged >Individual members feel safe articulating views that are divergent from those of other members	>Individual members acknowledge the influence of divergent views on their own views >Individual members feel safe in articulating how their views have and have not changed by participating in the group	
Setting Expectations	>Expectations for what the group will accomplish are unclear >Individual members disagree on what the task is	>Expectations for what the group will accomplish are often not clear >Individual express different interpretations of the task	>Expectations for what the group will accomplish are clear enough to do the work >Individual members agree on what the task is	>Group members agree on expectations and adapt the level of the work to increase challenge >Individual members question and redefine the task to reflect their level of skill	
Addressing the Deliverables Associated with the Semester Project	>The deliverables do not reflect individual members standards of good work	>The deliverables reflect variable standards from one occasion to the next	>The deliverables reflect the standards of individual members	>The deliverables reflect the level of challenge the group has set for itself	

Invisible Coach
2/21/14

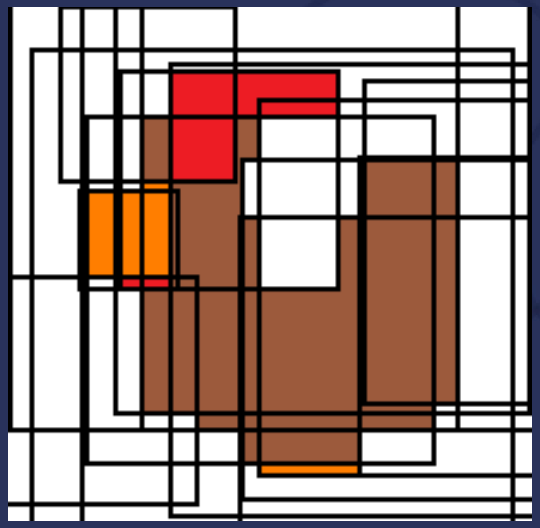
T-560, Universal Design for Learning*
Group Learning Assessment Rubric

Domain/Level	Emergent	Novice	Proficient	Advanced	Comments
Acknowledging Individual Contributions	>Individual members feel their views are not addressed or seldom addressed in group discussions >Individual members feel the final product does not, or only partly, reflects their contribution	>Individual members feel their views are sometimes addressed in group discussions >Individual members feel the final product sometimes reflects their contribution	>Individual members feel their views are usually addressed in group discussions >Individual members feel the final product usually addresses their contribution	>Individual members change their views as a result of other members contributions >Individual members acknowledge the contribution of other members to their learning	We're all excited!
Addressing Divergent/Convergent Points of View	>Disagreements among individuals are not addressed >Individual members feel reluctant or unsafe in articulating views that are divergent from those of other members	>Disagreements among individuals are sometimes addressed >Individual members express divergent views reluctantly	>Disagreements are openly discussed and acknowledged >Individual members feel safe articulating views that are divergent from those of other members	>Individual members acknowledge the influence of divergent views on their own views >Individual members feel safe in articulating how their views have and have not changed by participating in the group	Working across classes, being flexible.
Setting Expectations	>Expectations for what the group will accomplish are unclear >Individual members disagree on what the task is	>Expectations for what the group will accomplish are often not clear >Individual express different interpretations of the task	>Expectations for what the group will accomplish are clear enough to do the work >Individual members agree on what the task is	>Group members agree on expectations and adapt the level of the work to increase challenge >Individual members question and redefine the task to reflect their level of skill	Everyone wants to be involved, need more info. about assignments, responsibilities.
Addressing the Deliverables Associated with the Semester Project	>The deliverables do not reflect individual members standards of good work	>The deliverables reflect variable standards from one occasion to the next	>The deliverables reflect the standards of individual members	>The deliverables reflect the level of challenge the group has set for itself	Need to set explicit group standards
Feel free to create an additional domain that is individualized to your team's unique needs					

* Special thank you to Professor Richard Elmore who developed this rubric for A-341, Supporting Teachers for Instructional Improvement

Ideal outcome

- Effective teams
- Compelling direction for work
- Supportive structure
- Norms of conduct and communication



Provide multiple means of
Engagement

Affective Networks
The "WHY" of Learning

Provide options for
Recruiting Interest

- Optimize individual choice and autonomy
- Optimize relevance, value, and authenticity
- Minimize threats and distractions

Provide options for
Sustaining Effort & Persistence

- Heighten salience of goals and objectives
- Vary demands and resources to optimize challenge
- Foster collaboration and community
- Increase mastery-oriented feedback

Provide options for
Self Regulation

- Promote expectations and beliefs that optimize motivation
- Facilitate personal coping skills and strategies
- Develop self-assessment and reflection

- Options for readings, projects, participation
- Options for building community, varying challenge
- Options for setting goals, self-reflection on progress

A Typical Tuesday in T-560

Whole Class Lecture and Presentations: 1:10 - 2 PM

Design Team Workshops: 2:10 - 3 PM

Advanced Consulting Groups: 3:10 -4:00 PM

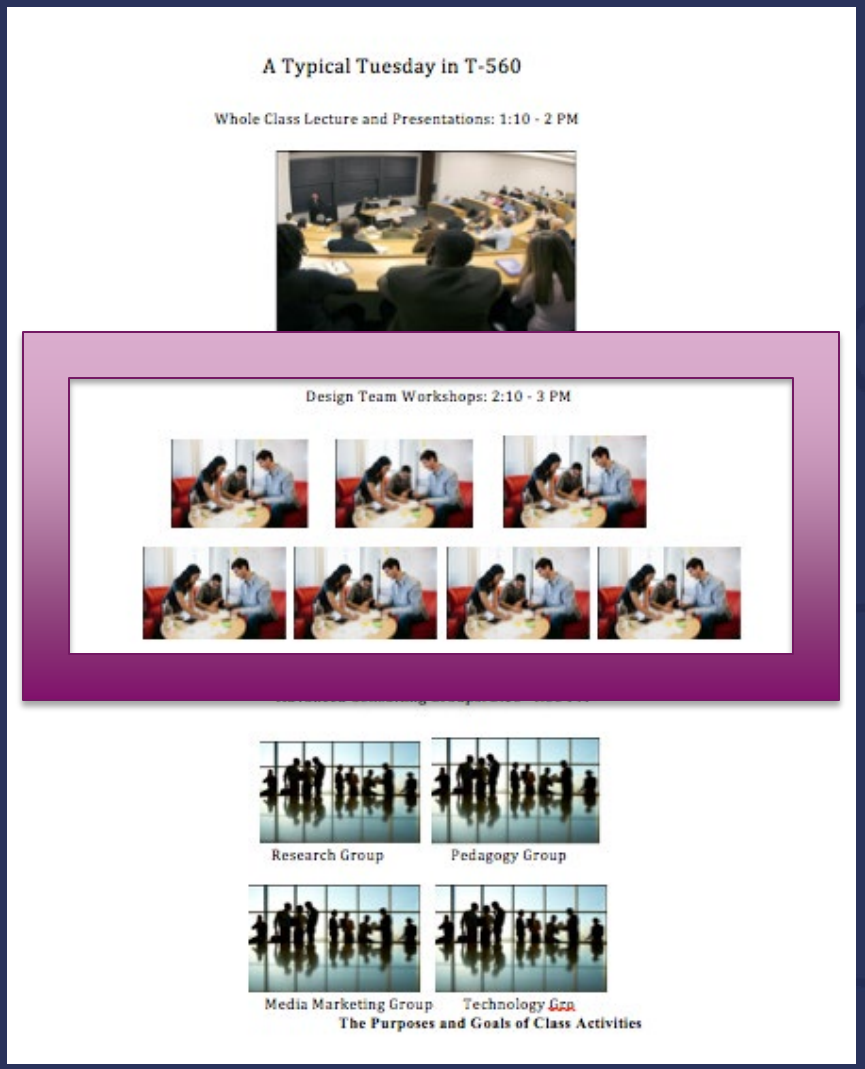
Research Group

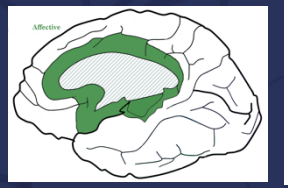
Pedagogy Group

Media Marketing Group

Technology Grp

The Purposes and Goals of Class Activities

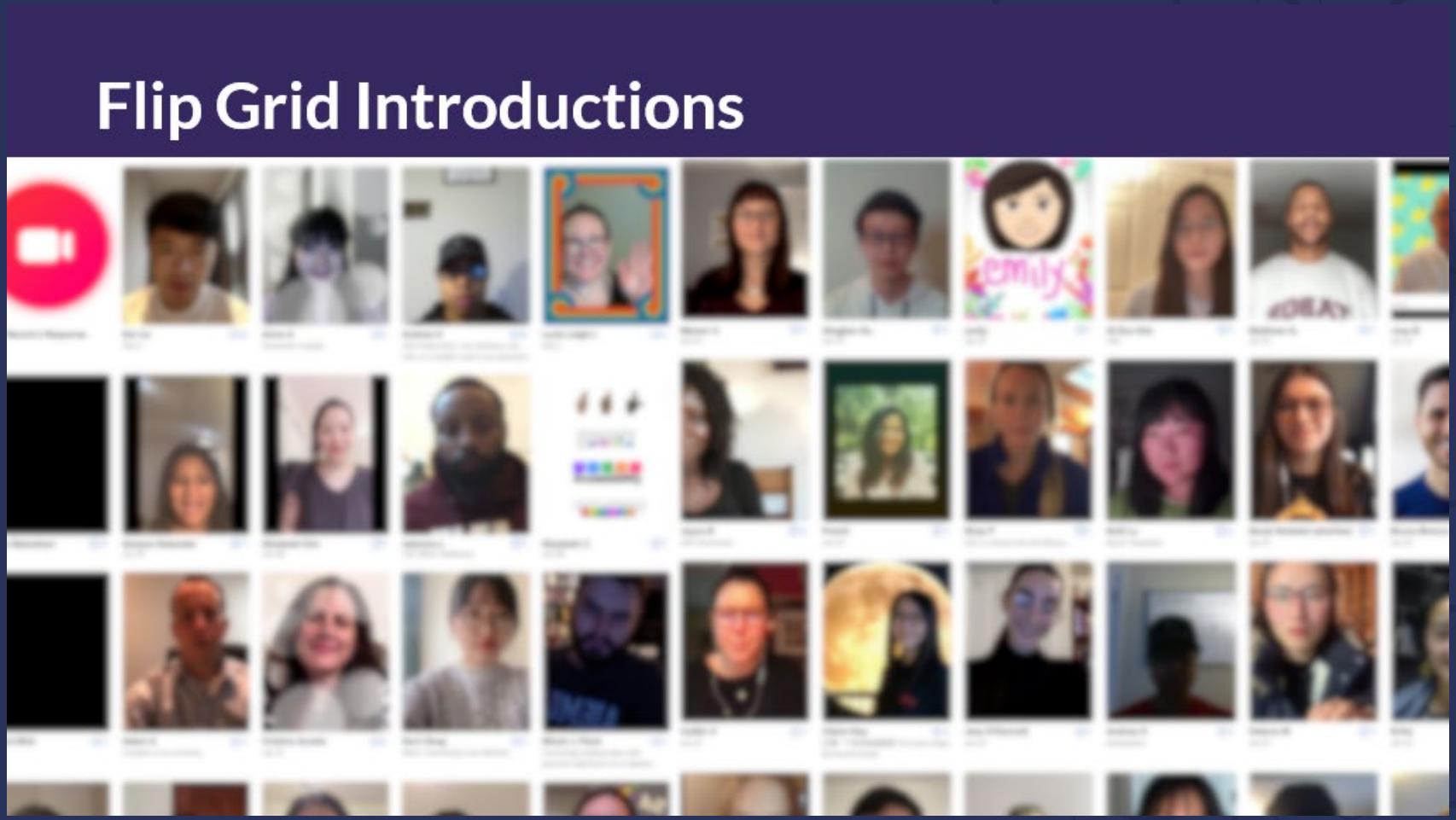




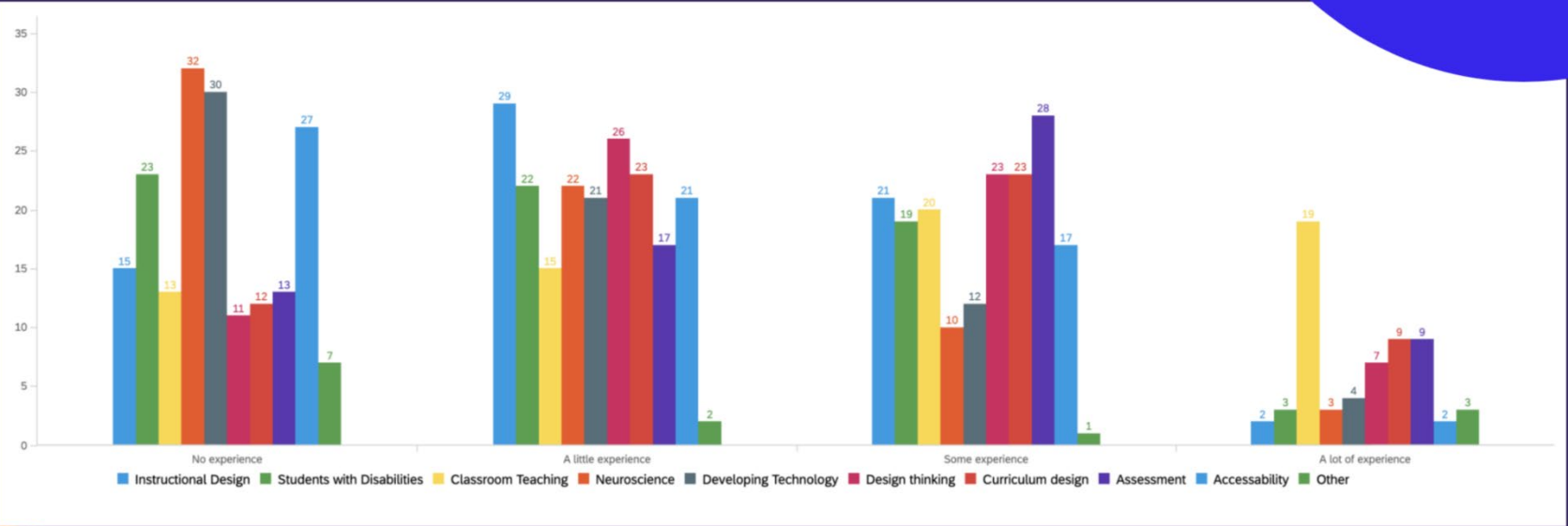
III. Provide Multiple Means of Engagement

- Recruiting interest
- Sustaining effort and persistence
- Self-regulation

Creating Community



Please share your experience



- Other faculty members have become fans of discussion boards, which expanded and deepened the conversations among students in their classrooms.
- "In face-to-face discussions, even a 'great' session typically involves contributions from just part of the class. Many students who are reluctant to contribute to in-person discussions raised great questions and offered exceptionally thoughtful reflections in the online space of the discussion board," wrote William Kerrigan, a history professor at Muskingum University, who used them in his masked and distanced classroom. "The synchronous discussion board provided a second forum for students to demonstrate engagement with the course material.
- "In addition," he continued, "even though all posts were viewable to the whole class, students seemed more willing to ask good questions that they might have feared were 'stupid' and were reluctant to ask in class. The result was I had a much better sense of what students understood and didn't understand in the reading. I often used some of these questions to begin our discussion on the next in-class day."

Multiple Means of Engagement

The power of choice

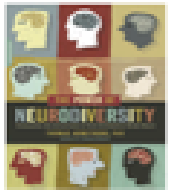
Everyone Reads

Week One

Week Two

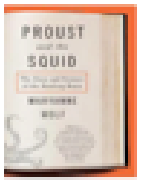
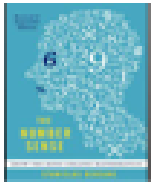
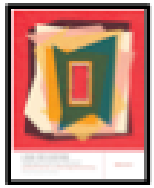
Week Three

Universal Design for Learning: (2014)



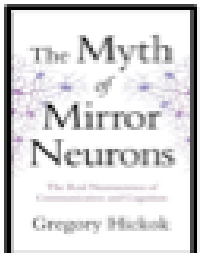
The Power of Neurodiversity: (2012)

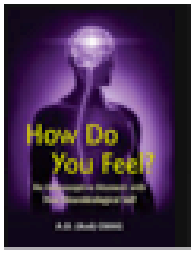
Advanced Consulting Groups Read

	Research Group	Pedagogy Group	Media Group	Technology Group
Week Four Week Five Week Six	 Proust and the Squid: The story and science of the reading Brain.	 UDL NOW: A Teachers Monday Morning Guide.	 Design and Deliver: Planning and Teaching using UDL.	 Mobile Learning for All; a UDL approach
Week Eight Week Nine Week Ten	 Number Sense, How the mind creates mathematics (2012)	 Universal Design in the Classroom (2012)	 Unconscious Branding: How Neuroscience informs Marketing	 A Web For Everyone: Designing Accessible User Experiences (2013)

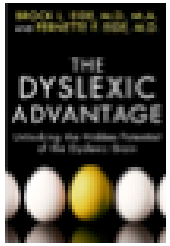
Individuals Read (Choose One)

On Learning Science

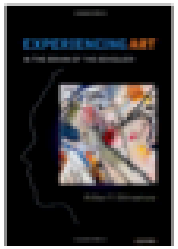


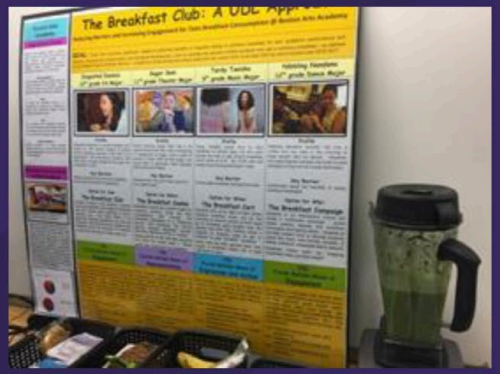


On individual differences



On learning design and art





The autistic bliss of Zoom

Joni Whitworth March 7, 2021 12:15 PM

"Zoom Fatigue" Gives Neurotypicals a Rare Glimpse Into the Experience of Autistic Adults

November 25, 2020 in **Autism**, **Executive Dysfunction**, **Neurodivergent**

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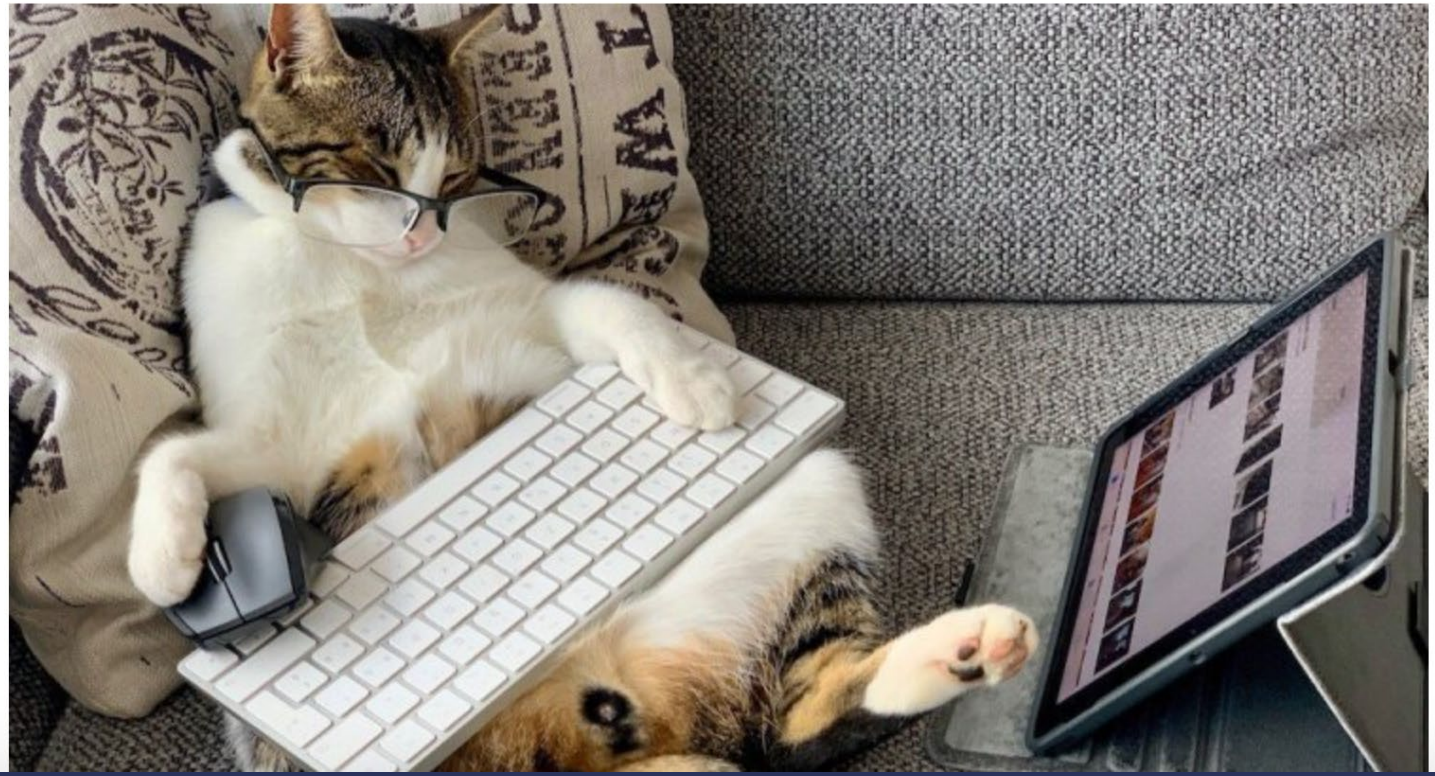
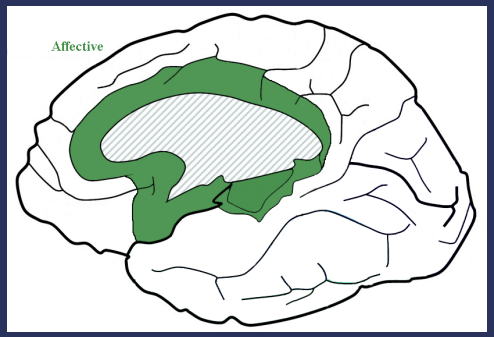
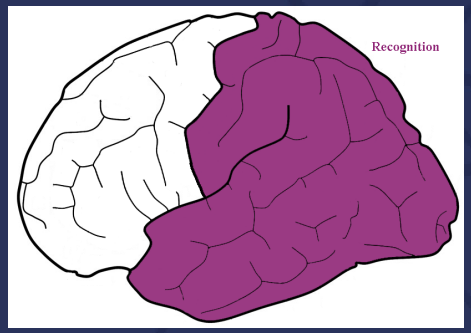
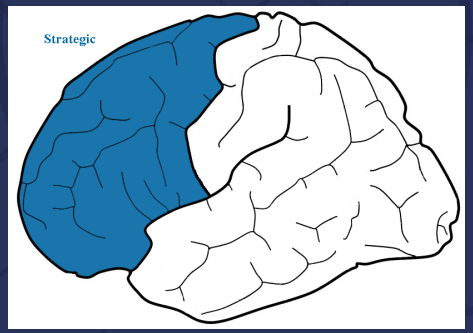


New Directions







From Ability to Identity and Culture

Provide multiple means of
Representation

Recognition Networks
The "WHAT" of Learning

Provide options for
Perception (1)

- Offer ways of customizing the display of information (1.1)
- Offer alternatives for auditory information (1.2)
- Offer alternatives for visual information (1.3)

Provide options for
Language & Symbols (2)

- Clarify vocabulary and symbols (2.1)
- Clarify syntax and structure (2.2)
- Support decoding of text, mathematical notation, and symbols (2.3)
- Promote understanding across languages (2.4)
- Illustrate through multiple media (2.5)

Provide options for
Comprehension (3)

- Activate or supply background knowledge (3.1)
- Highlight patterns, critical features, big ideas, and relationships (3.2)
- Guide information processing and visualization (3.3)
- Maximize transfer and generalization (3.4)

Addressing Identity, not just Ability.

Provide multiple means of
Action & Expression

Strategic Networks
The "HOW" of Learning

Provide options for
Physical Action (4)

- Vary the methods for response and navigation (4.1)
- Optimize access to tools and assistive technologies (4.2)

Provide options for
Expression & Communication (5)

- Use multiple media for communication (5.1)
- Use multiple tools for construction and composition (5.2)
- Build fluencies with graduated levels of support for practice and performance (5.3)

Provide options for
Executive Functions (6)

- Guide appropriate goal-setting (6.1)
- Support planning and strategy development (6.2)
- Facilitate managing information and resources (6.3)
- Enhance capacity for monitoring progress (6.4)

Addressing Identity, not just Ability.

Provide multiple means of
Engagement

Affective Networks
The "WHY" of Learning

Provide options for
Recruiting Interest

- Optimize individual choice and autonomy
- Optimize relevance, value, and authenticity
- Minimize threats and distractions

Provide options for
Sustaining Effort & Persistence

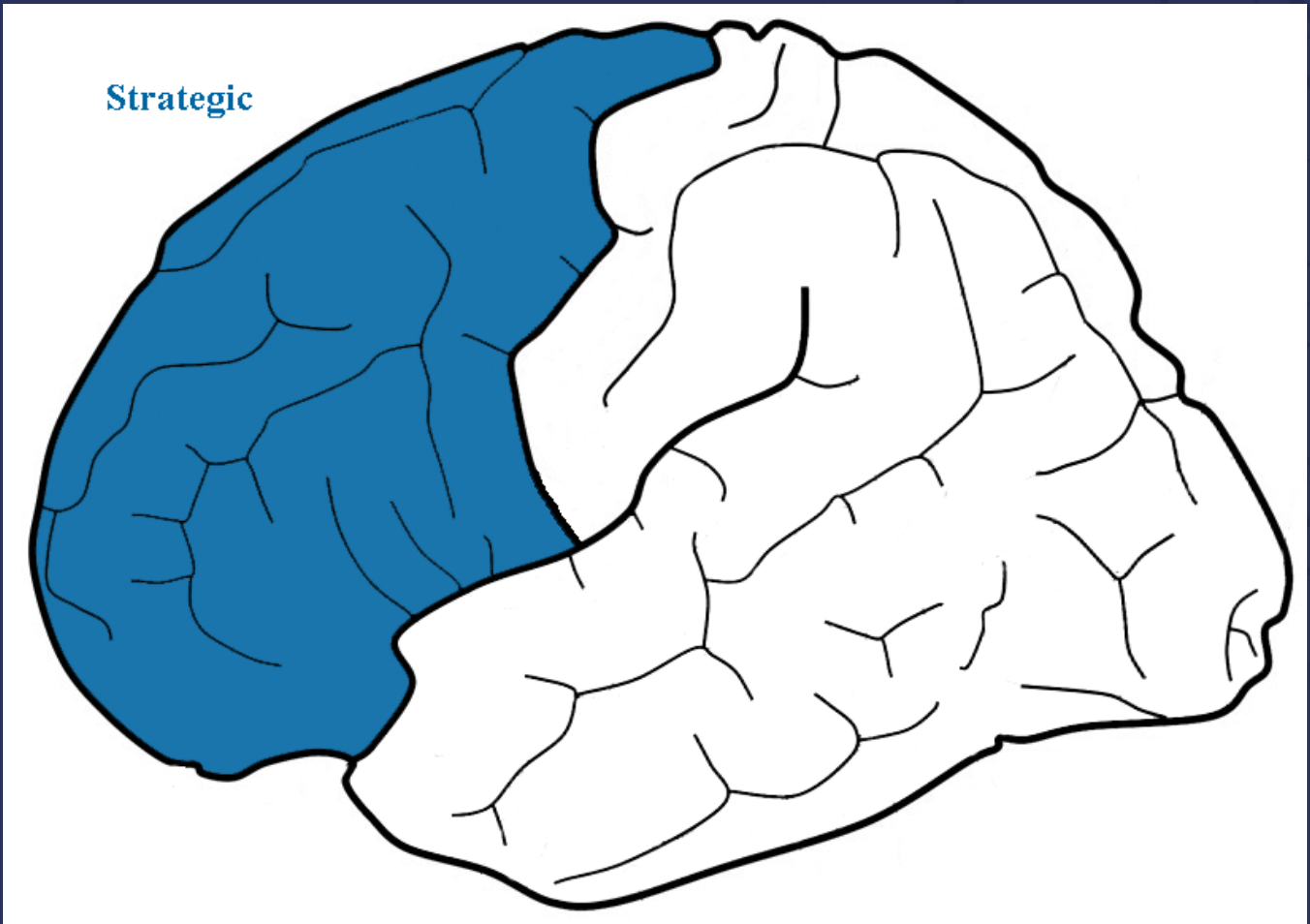
- Heighten salience of goals and objectives
- Vary demands and resources to optimize challenge
- Foster collaboration and community
- Increase mastery-oriented feedback

Provide options for
Self Regulation

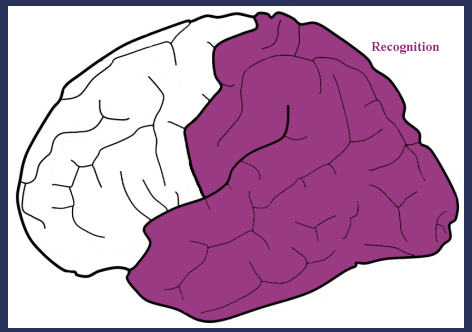
- Promote expectations and beliefs that optimize motivation
- Facilitate personal coping skills and strategies
- Develop self-assessment and reflection

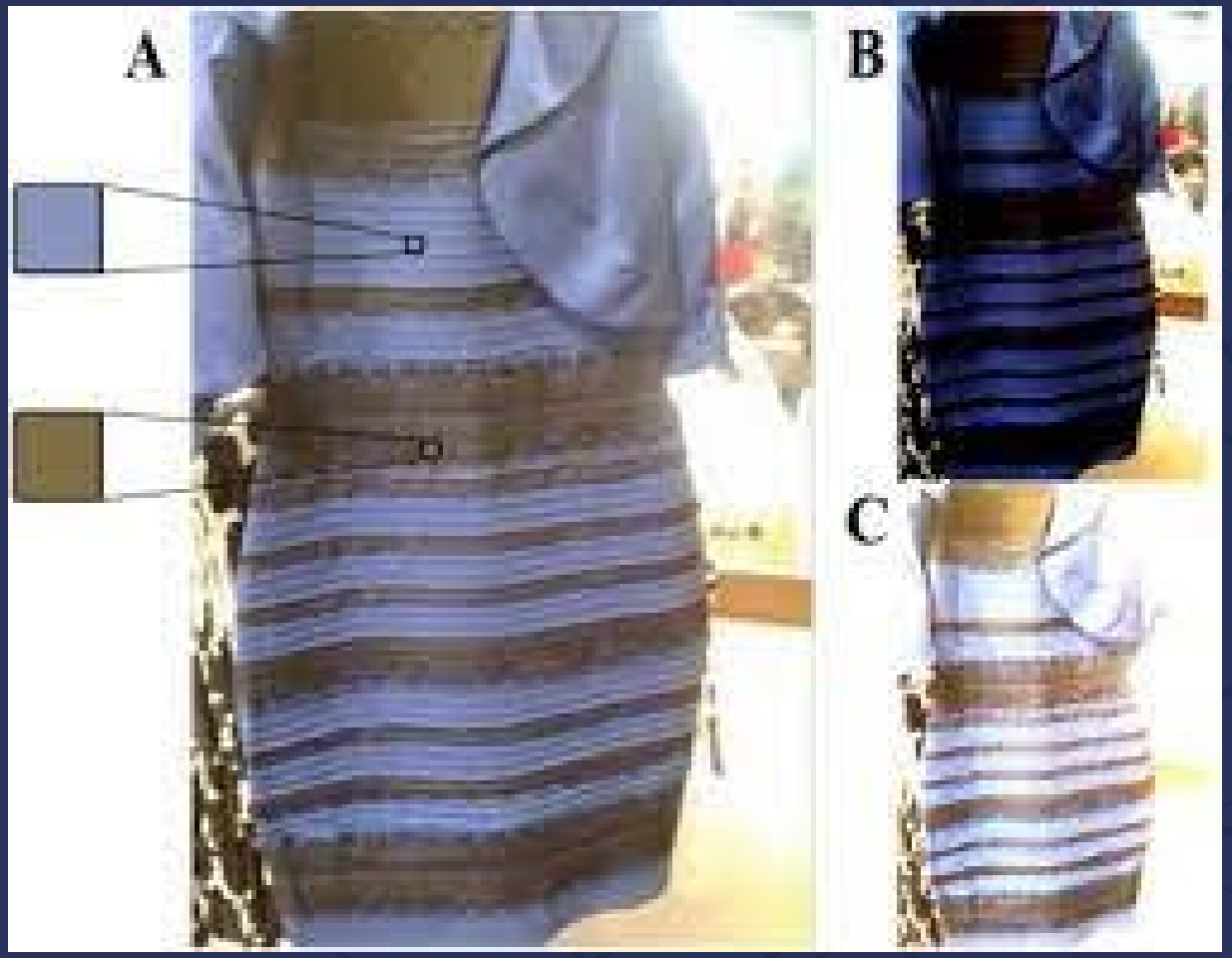
Addressing Identity, not just Ability.

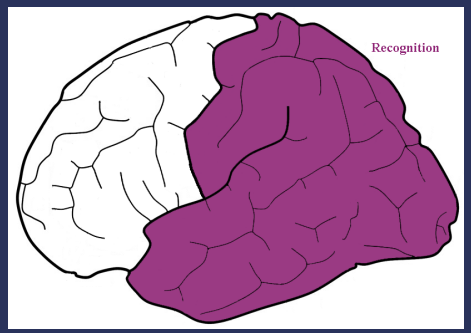
Addressing Implicit Bias: Executive Strategies




Recognition


Recognition


A
B
C



For emaxlpe, it deson’t mttaer in waht oredr the ltteers in a wrod aepapr, the olny iprmoatnt tihng is taht the frist and lsat ltteer are in the rghit pcale. The rset can be a toatl mses and you can sitll raed it wouthit pobelrm.

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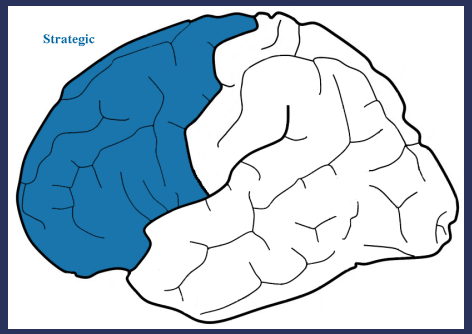
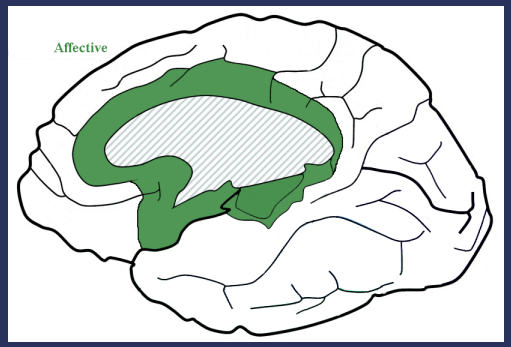
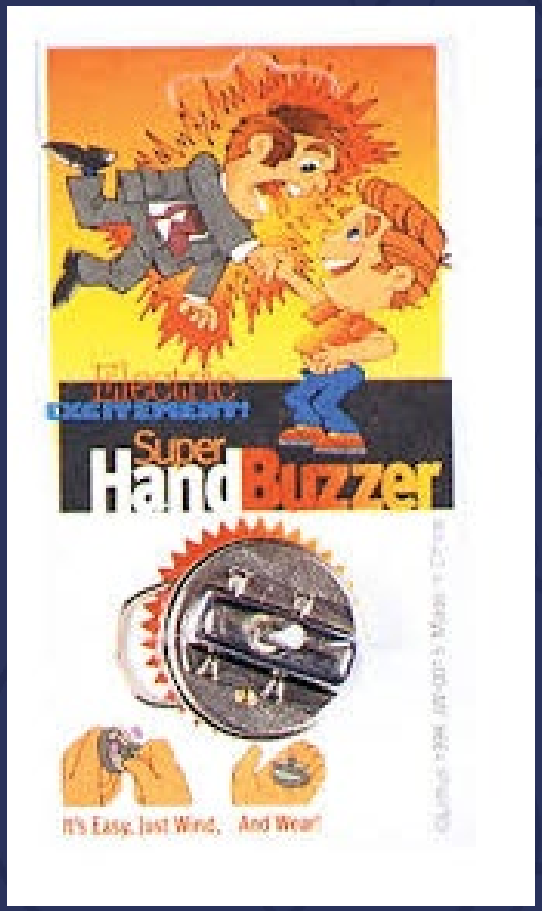
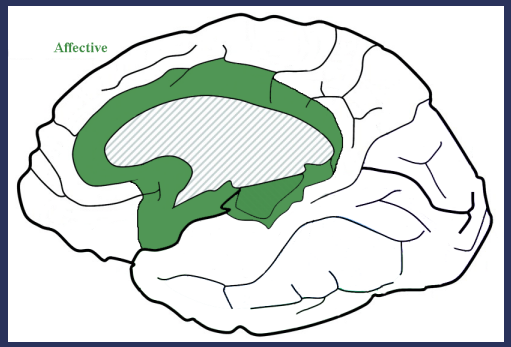






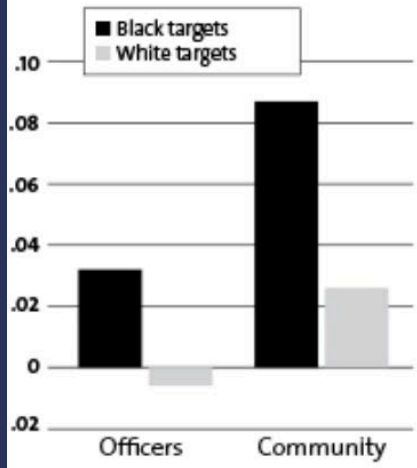

Affective

Armed and Dangerous?

Denver police officers and community members were shown photos of black and white men—some holding guns, others holding harmless objects like wallets—and asked to press the "shoot" or "don't shoot" button for each image. The result: Cops were better than community members at determining whether a target was armed (and they fired faster), but they still showed bias against black targets.

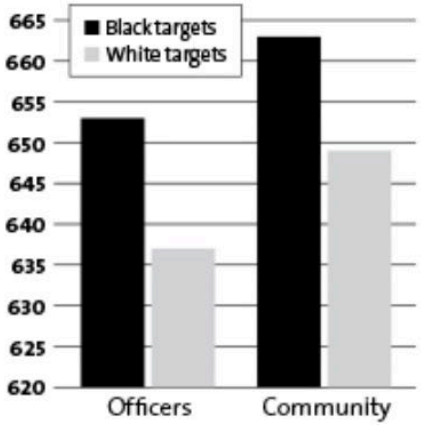
Propensity to shoot

Tendency to shoot at black vs. white targets, based on test outcomes



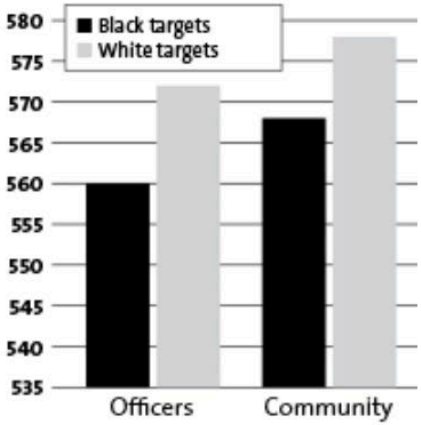
Participants are slower to press "don't shoot" when unarmed target is black

Milliseconds elapsed before response



Participants are quicker to press "shoot" when an armed target is black

Milliseconds elapsed before response

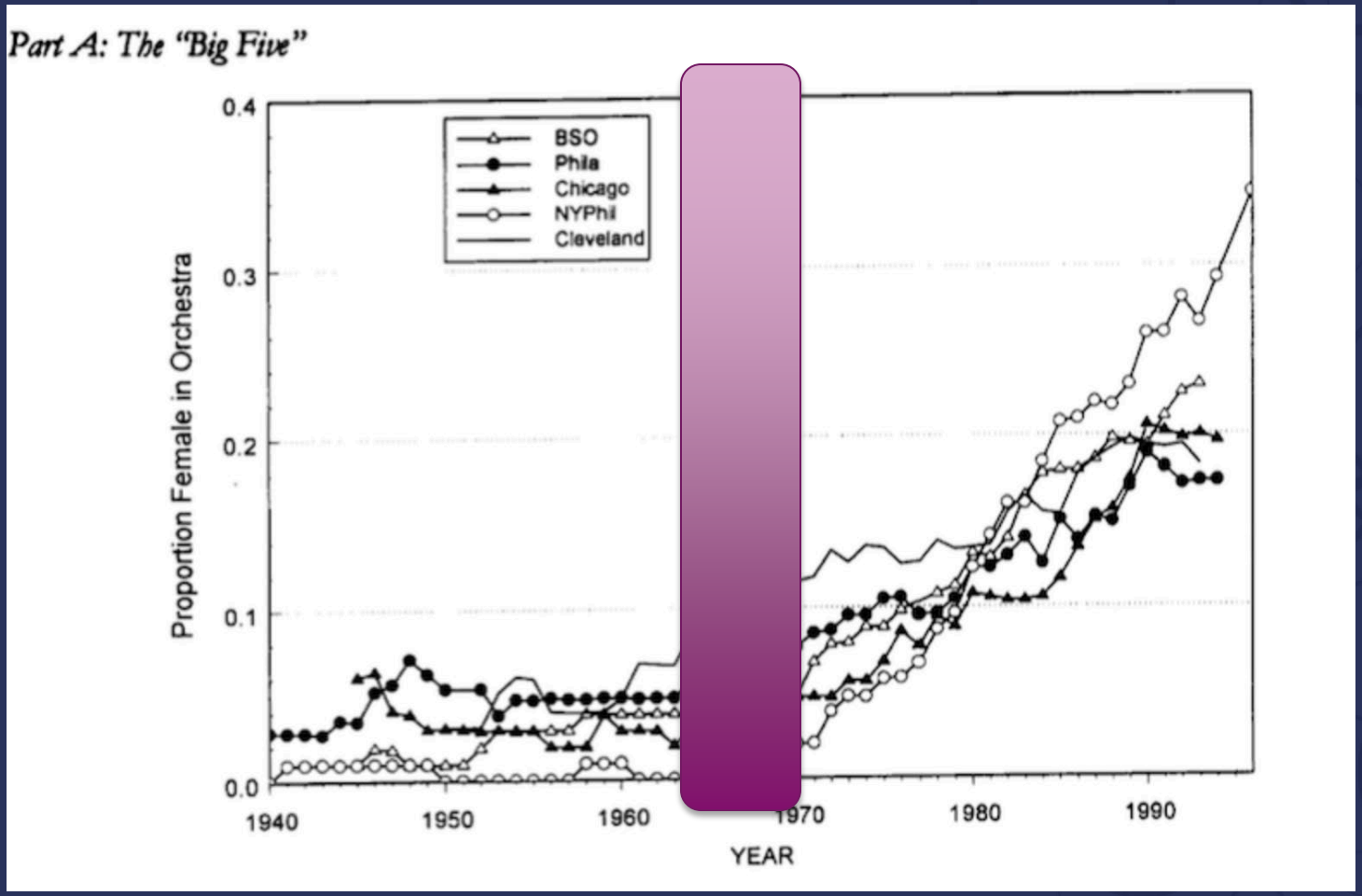


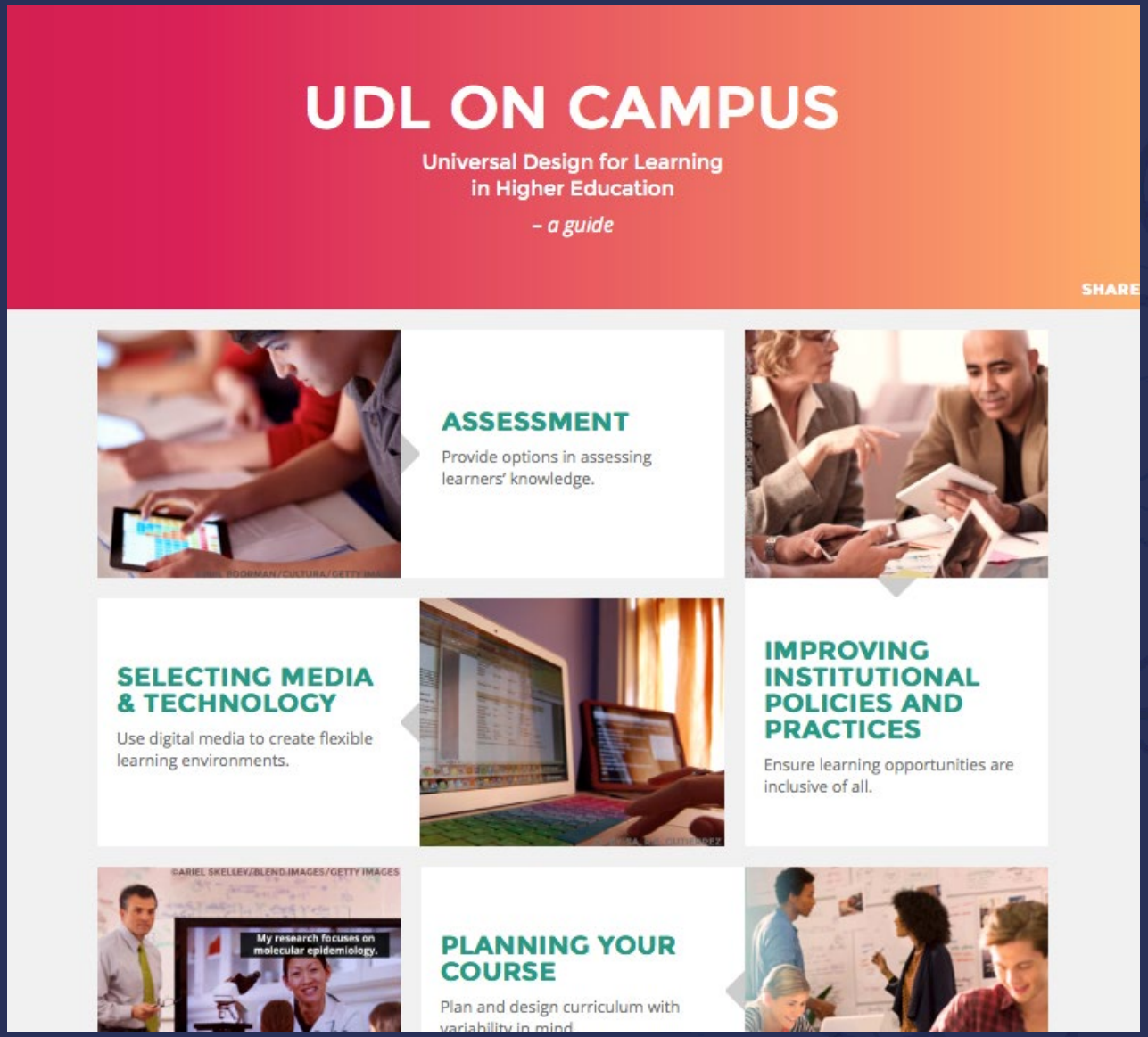
Source: *Journal of Personality and Social Psychology*, 2007

Mother Jones

Images from a test that asked subjects whether to shoot—or not

The effect of blind auditions





udloncampus.cast.org/home