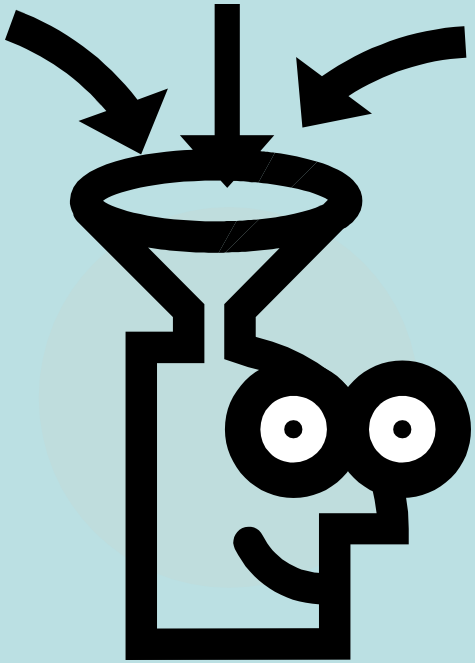
www.NinaGcomedian.com

Learning Ramps
An introduction to Universal Design for Learning

Presented by
Nina G

In Pairs….

- Discuss how you learn best and how this might bias you in learning and teaching.



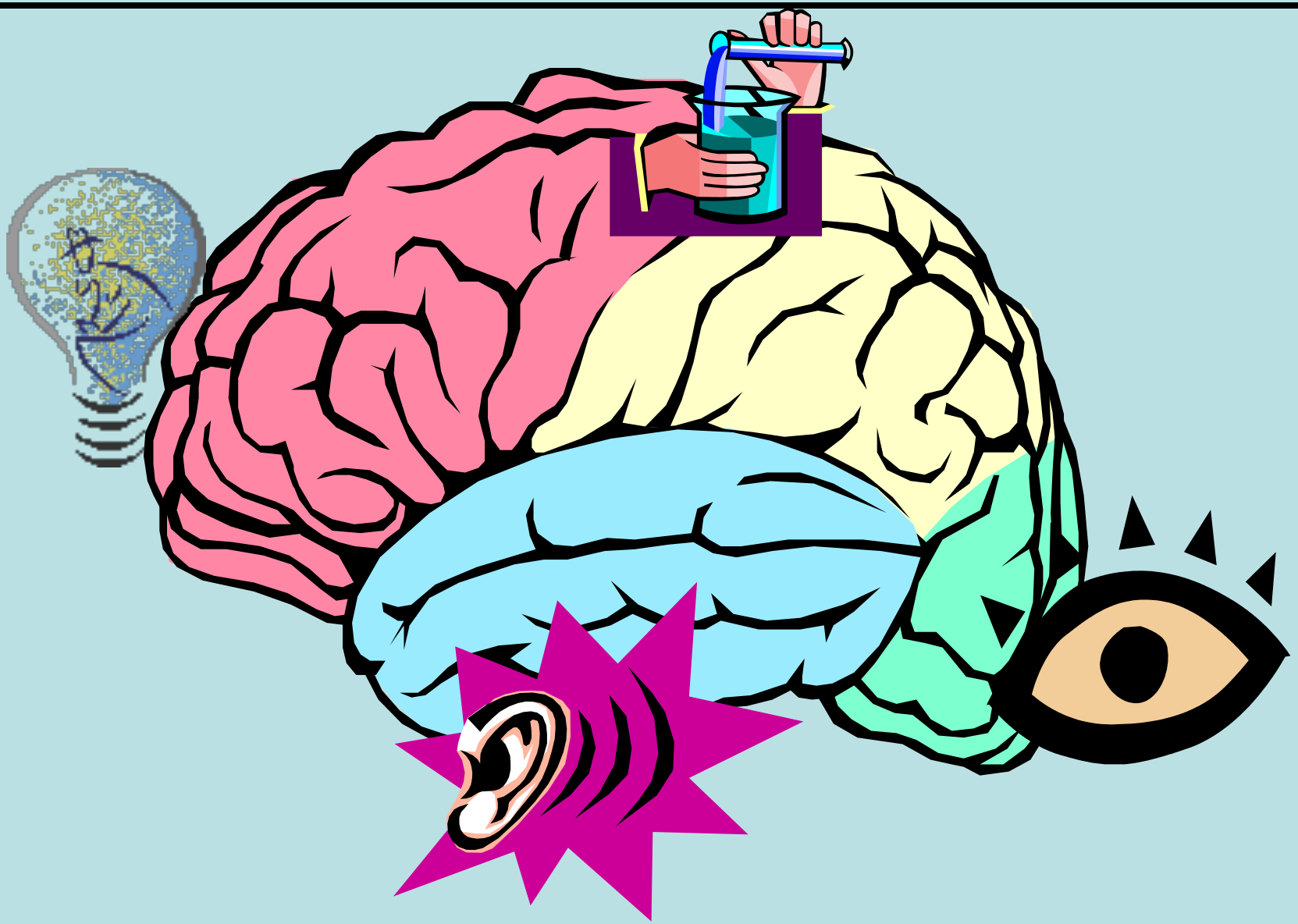
Objectives

- Understand how your personal learning bias may impact your teaching.
- Understand the principles of Universal Design.
- Address the needs of diverse learners.
- Implement multi-modal/brain-based teaching techniques.

Two Roads to Addressing SWDs

- **Universal Design**
- **Accommodations for specific disability related needs**

What is Multi-Modal Teaching



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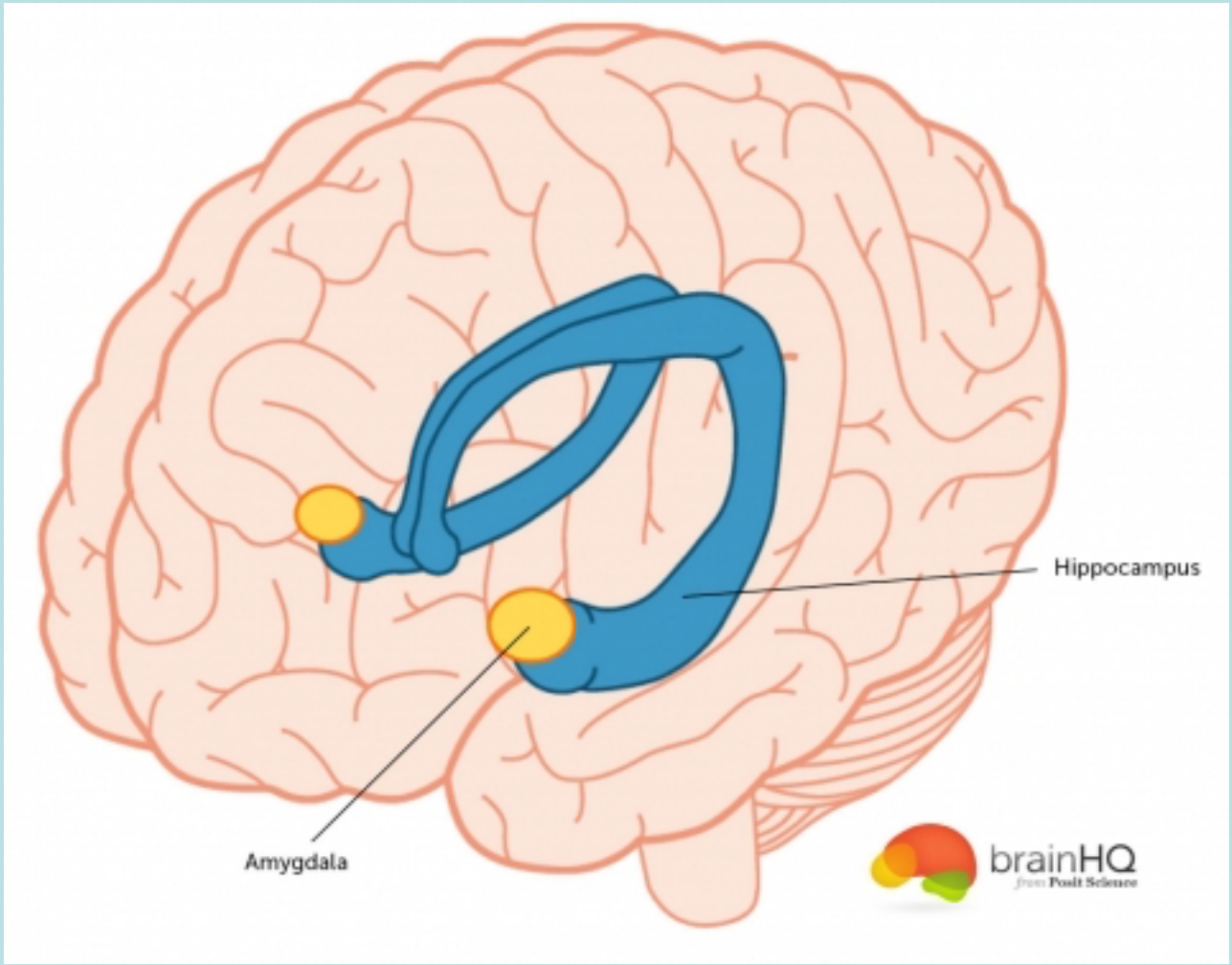
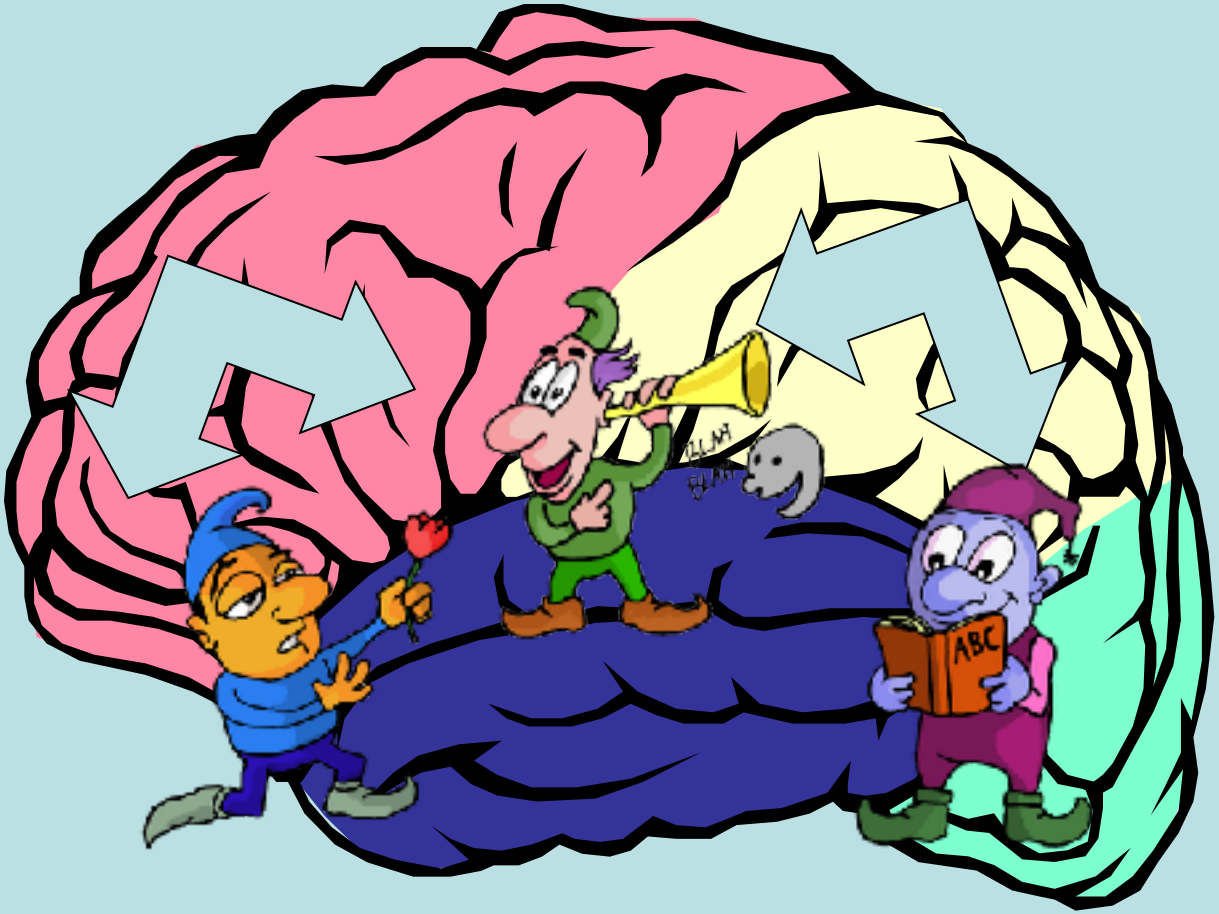


- The castaways were **standard** on the island.
- The castaways were **stranded** on the island.

Based on the work of Sally Shaywitz, Overcoming Dyslexia


ABC

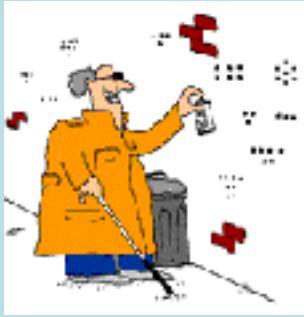

Learning

What we can learn from students with disabilities?

- **All** students learn differently
- When you accommodate the needs of students with disabilities, everyone gets their needs addressed
- Using different modes accommodates the whole brain
- Teaching to disabilities is just good teaching

Universal Design

"Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design." –Ron Mace



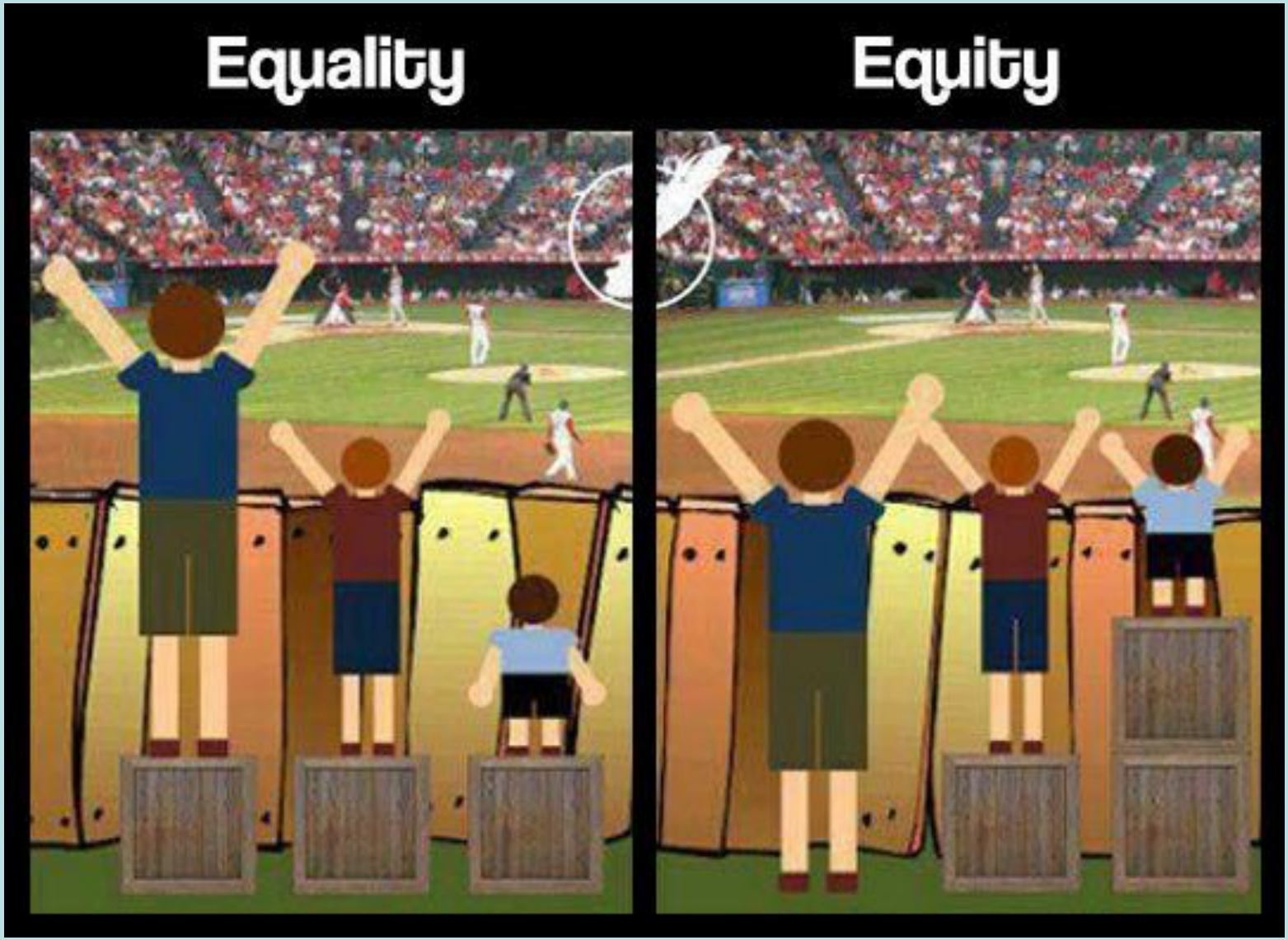
Accessibility Bingo

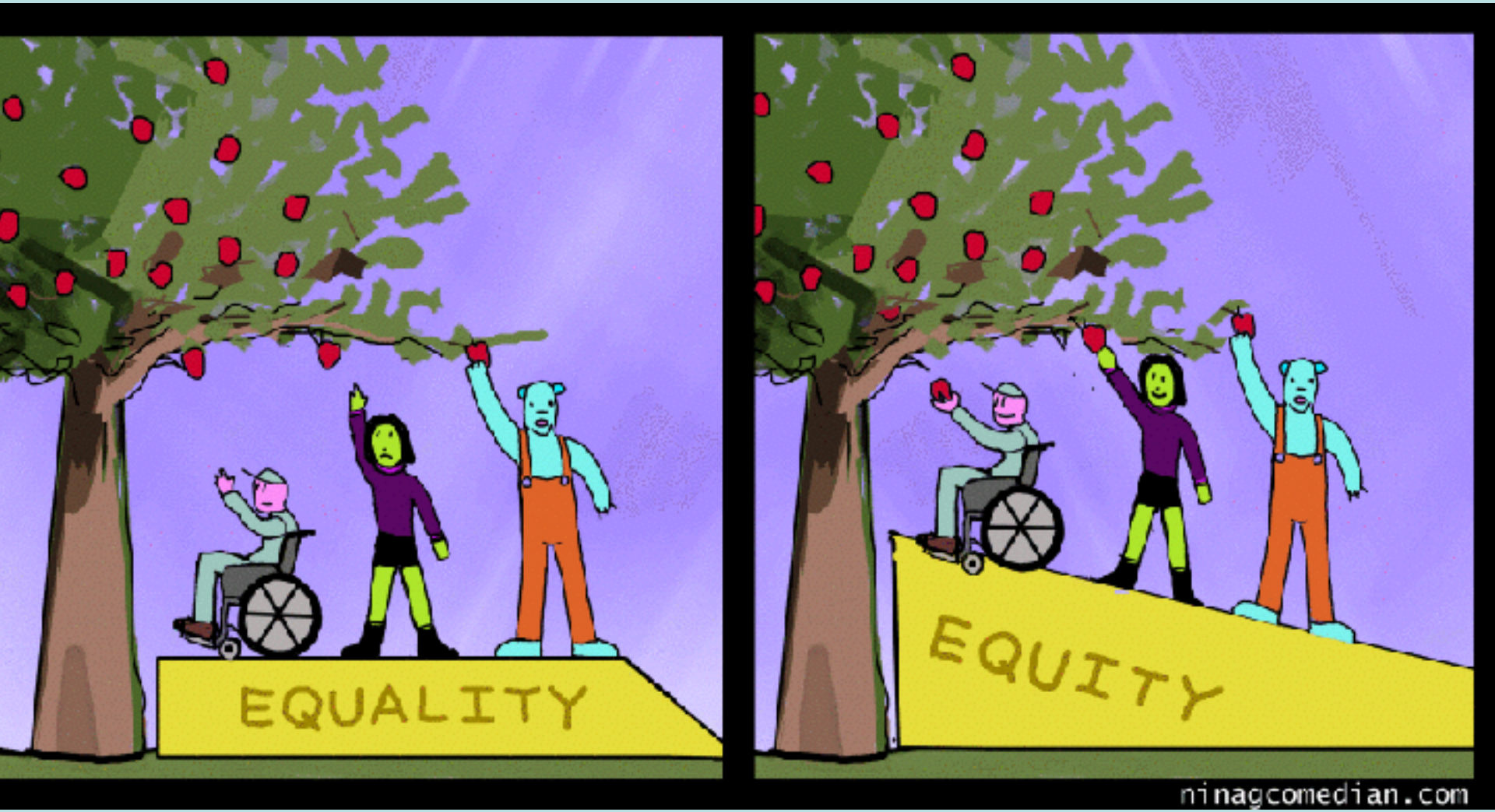
Objective 1: Become more aware of the needs of People with Disabilities within the environment.

Objective 2: Increase your understanding of Universal design.

Goal: In teams, take a walk for 15 to 30 minutes to assess the accessibility of the surrounding area. We are playing Texas Blackout. So try to mark down as many accessible things as you can. We will compare them in class.

B	I	N	G	O
Doors wide enough for wheelchair users	TTYs for Deaf people to make phone calls.	Signs displayed in Braille.	Bathroom stall wide enough for a wheelchair to get into.	Closed Captioned TV (with the closed caption on)--such as a gym or restaurant.
Automatic door opener.	Water faucet with easy grip handles or automatic.	Fill in something that was NOT accessible.	Curbcuts.	Signs with bullet-points for visual organization.
Grooves on curbcuts that guide people who are Blind.	Fill in something that was accessible.	Totally Accessible Space -Free-	Fill in something that was NOT accessible.	Amplified phones for the Hard-of-Hearing.
Sign expressed in pictures, in addition or instead of words.	Chirping signal lights for Blind walkers.	Fill in something that was accessible.	Documents offered in an alternative format.	Books in audio form
Ramp and stairs for equal access.	Alternative path when there are stairs that is equal, but not separate.	Squishy toys or playdo for students who fidget.	Drinking fountain at wheelchair level.	"Handicap" parking.


Equality
Equity


EQUALITY
EQUITY
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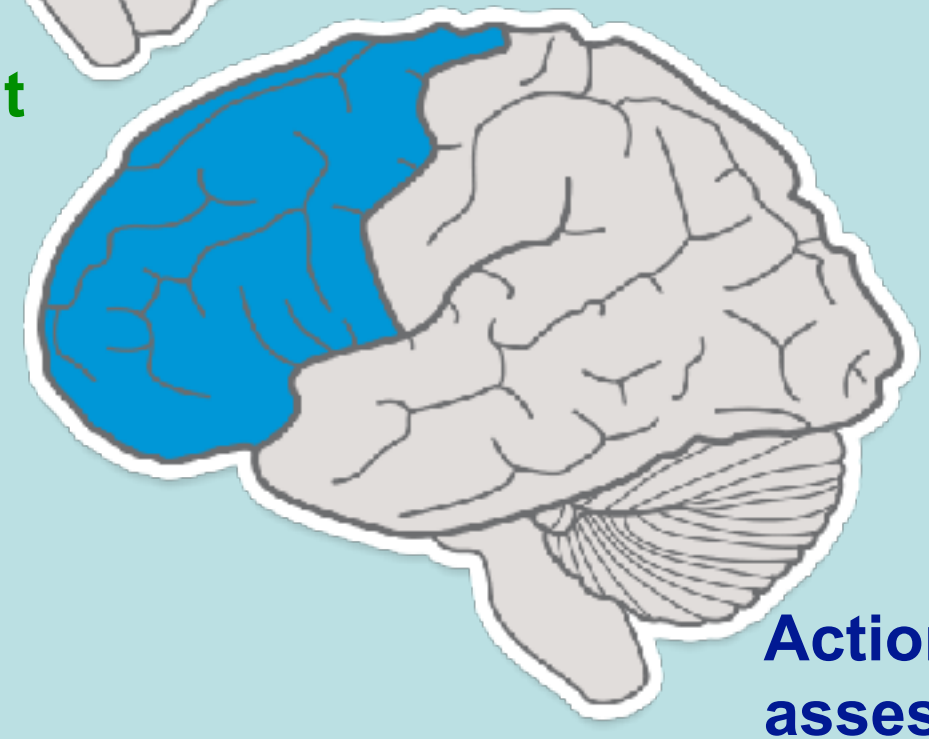
UDL and the Brain

Engagement

Representation of information



Action, expression and assessment

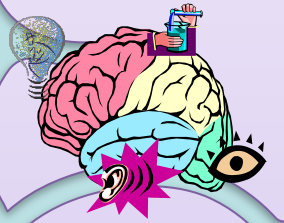
Whole Brain Learning

Organization

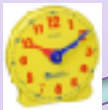
Bulletinboards

Multisensory

Metaphors



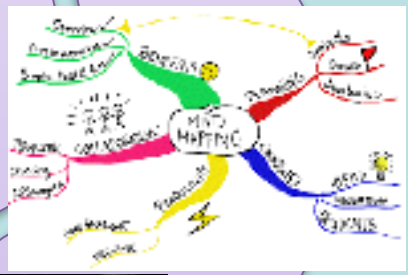
Punctuality
Goal-setting



Logic

Options

Visual representations



Make connections

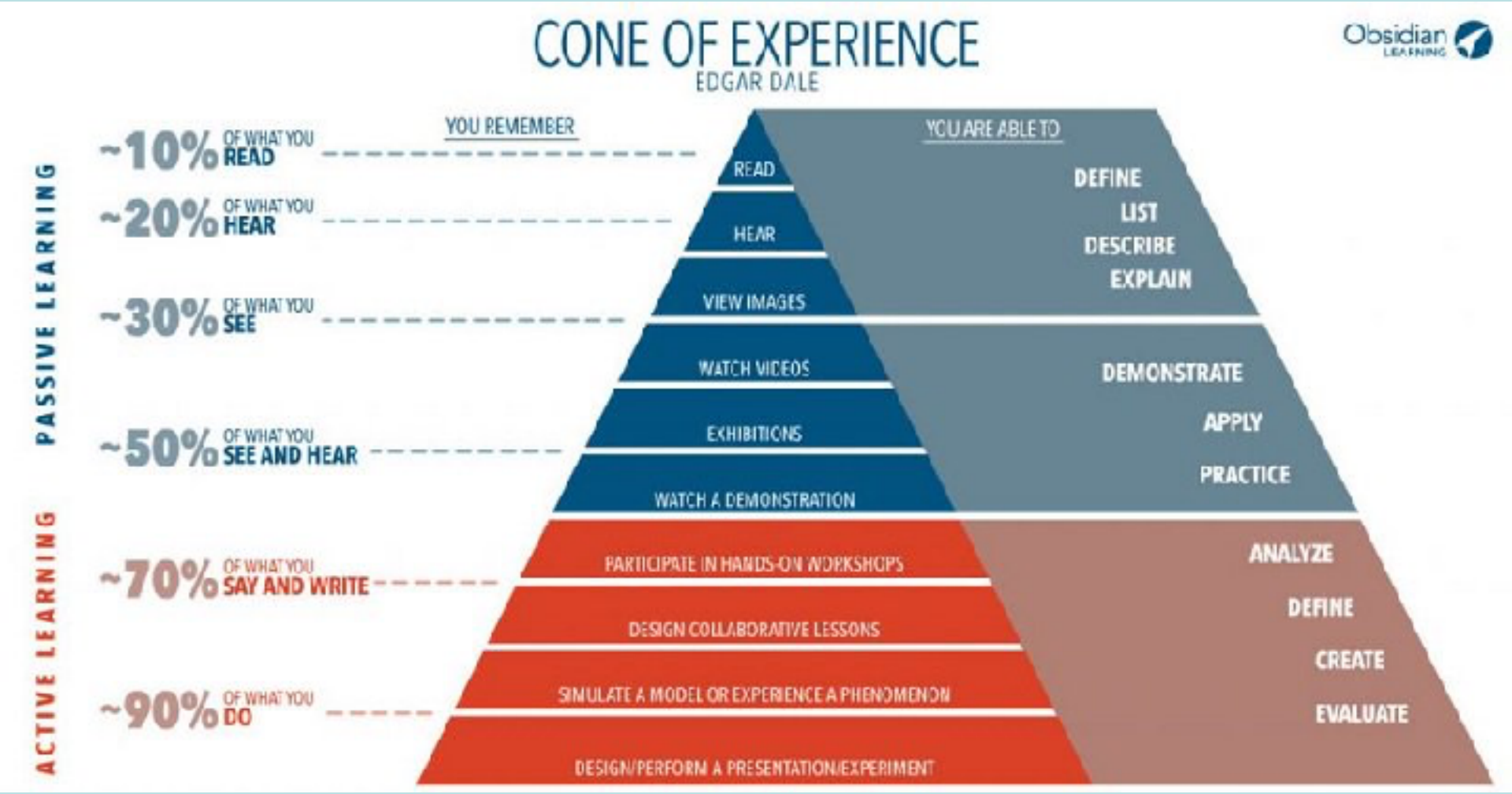
Student interactions

Teach for transfer

Direct experience

Hands on

Souza, How the Brain Learns, p. 231-232


CONE OF EXPERIENCE
EDGAR DALE
Obsidian LEARNING
PASSIVE LEARNING
ACTIVE LEARNING
YOU REMEMBER
YOU ARE ABLE TO
~10% OF WHAT YOU READ
~20% OF WHAT YOU HEAR
~30% OF WHAT YOU SEE
~50% OF WHAT YOU SEE AND HEAR
~70% OF WHAT YOU SAY AND WRITE
~90% OF WHAT YOU DO
READ
HEAR
VIEW IMAGES
WATCH VIDEOS
EXHIBITIONS
WATCH A DEMONSTRATION
PARTICIPATE IN HANDS-ON WORKSHOPS
DESIGN COLLABORATIVE LESSONS
SIMULATE A MODEL OR EXPERIENCE A PHENOMENON
DESIGN/PERFORM A PRESENTATION/EXPERIMENT
DEFINE
LIST
DESCRIBE
EXPLAIN
DEMONSTRATE
APPLY
PRACTICE
ANALYZE
DEFINE
CREATE
EVALUATE

What I hear, I forget.

What I see, I remember.

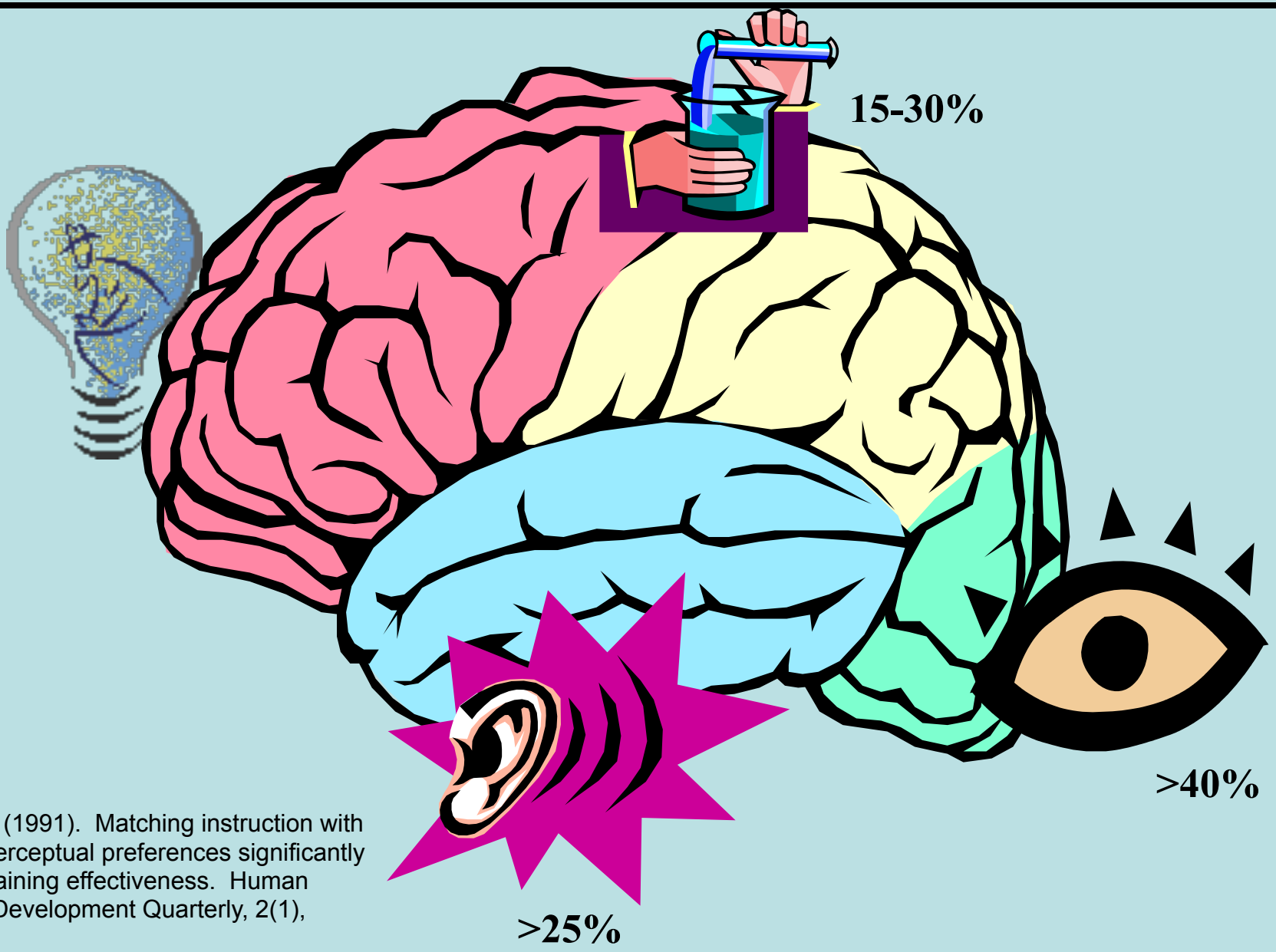
What I do, I understand.

---Confucius

Traditional Instruction

- Chalk and Talk Model
- Sustained Lecture (Johnson, Johnson, & Smith, 1991)
  - Attention decreases with each passing moment
  - Appeals only to auditory learners
  - Lower levels of learning at a factual level
  - Makes assumptions about the needs of the students

What is Multi-Modal Teaching

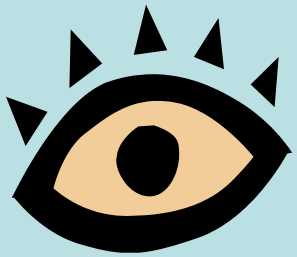


Ingrahm, J., (1991). Matching instruction with employee perceptual preferences significantly increases training effectiveness. Human Resources Development Quarterly, 2(1), 53-64

Learning Styles

- **Auditory**

- **Visual**

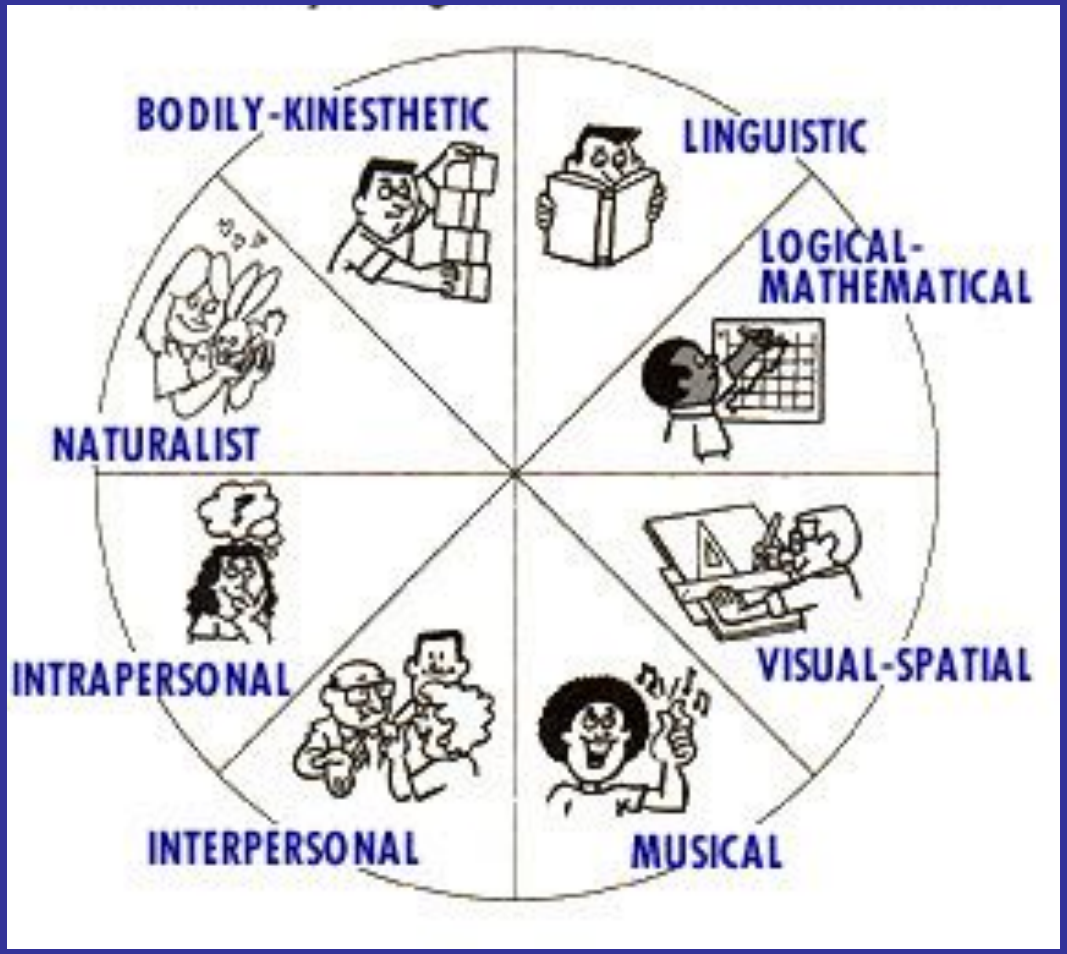


- **Tactile-Kinesthetic**

Multiple Intelligence

- **Linguistic**
- **Logical-Mathematical**
- **Interpersonal**
- **Intrapersonal**
- **Naturalist**
- **Visual Spatial**
- **Logical-Mathematical**
- **Intrapersonal**
- **Naturalist**
- **Bodily-Kinesthetic**
- **Visual-Spatial**
- **Musical-Rhythimic**
- **Naturalist**

Multiple Intelligences

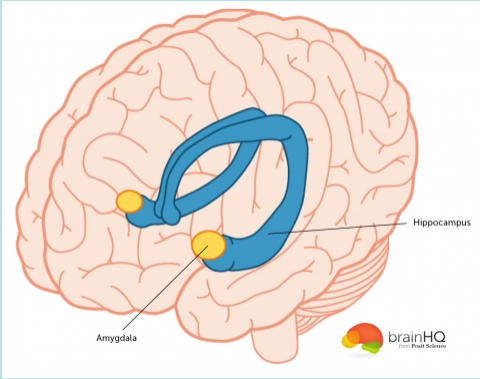


Implementing Brain Based Teaching

- In groups, come up with brain compatible teaching techniques you might implement in your own classroom. Prepare to present this information to the rest of the class.
  - Consider the following brain functions:
    - Visual
    - Auditory
    - Kinetic
    - Emotional

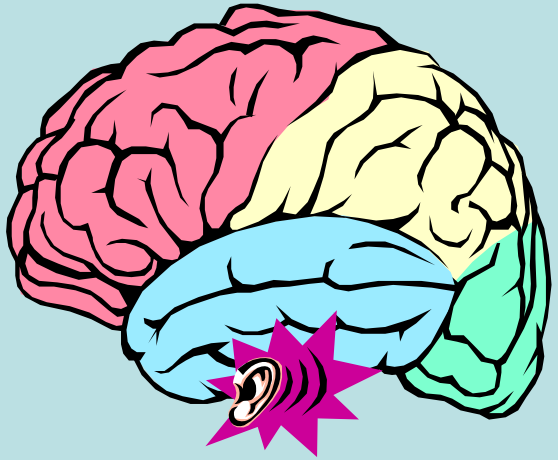
Emotional Modes In Teaching

- Discuss how to convey and how emotions can impact learning.



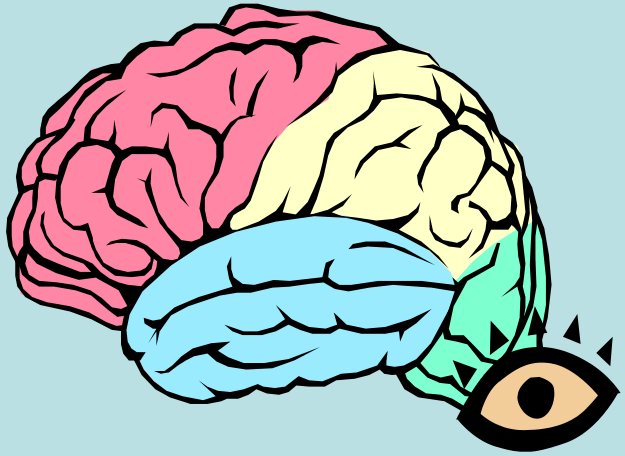
Auditory Modes In Teaching

- Brainstorming
- Metaphors, analogies, and similes
- Music and rhyme
- Reciprocal teaching



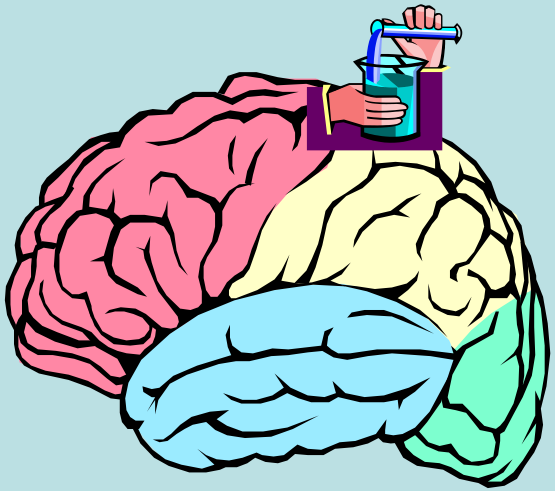
Visual Modes In Teaching

- Graphic organizers
- Mnemonic Devices
- Project based instruction
- Visualization
- Videos



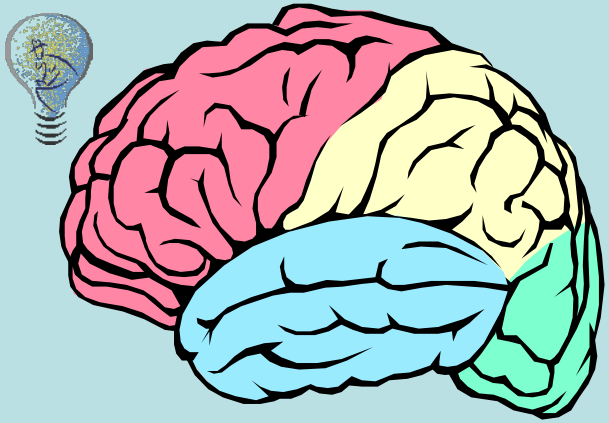
Kinetic Modes In Teaching

- Movement
- Drawing/artwork
- Games
- Manipulatives
- Role plays
- Action Research



Novelty In Teaching

- Humor
- Movement
- Multisensory Instruction
- Quiz games
- Music



Example from Brain Based Teaching

- Menu of assignments
  - Offer students different modes to fulfill assignments.
  - Allow students to different ways to learn and express what they learn
  - Allow student to build on interests and backgrounds
- www.help4teachers.com

Teaching to different learning styles

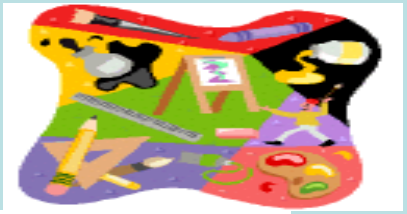
The following are an excerpt from: Teaching Kids with Learning Difficulties in the regular Classroom: Strategies and Techniques Every Teacher Can Use to Challenge and Motivate Struggling Students

by

Susan Winebrenner and Pamela Espeland

Visual Learners

- Pictures rather then words



- Viewing rather than reading (e.g. videos, demonstrations, examples)

- Look for an example of the finished product

- Visualizing scenes, characters, and actions as they read or learn about them

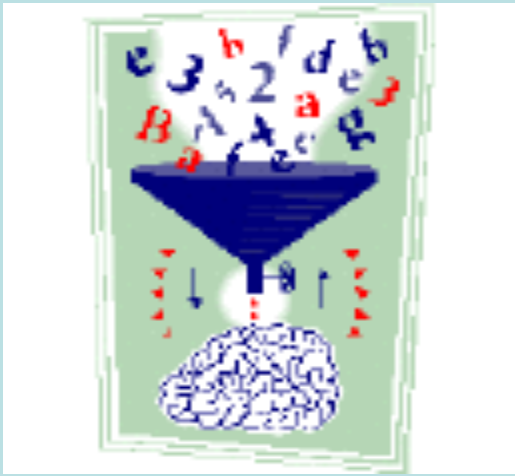
- Finding visual cues in text (charts, pictures, etc.)

Visual Learners

- Graphic organization (mapping, illustration in chart form)
- Using artistic means for what they learned
- If you get something wrong, look for an example of what the right answer is
- Visual order in the workplace
- Drawing or doodling while listening

Kinetic Learners

- Express concepts through art or unique study materials
- Jig-saw activities: each student/ group takes on one aspect of a larger concept which they teach to the class and build onto other student's presentations.
- Receive concrete examples at the beginning of a learning experience- Understand what you are learning

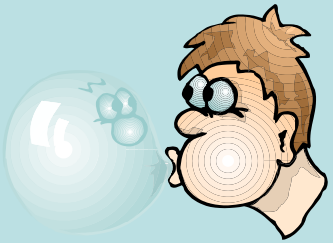


Kinetic Learners

- Learn best by doing
- Integrate tactile models when appropriate
- Directly apply principles learned in class or at internships
- Incorporate role play or simulations

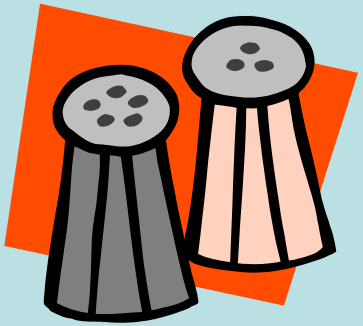
Kinetic Learners

- Moving while learning: squishy balls
- Learning academics after doing physical activities
- Acting out stories and events
- Fidgeting or chewing while thinking

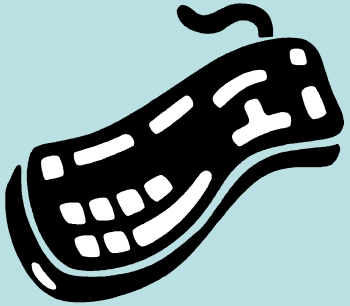


Kinetic Learners

- Writing in different media (sand, salt, shaving cream, pudding)



- Word processing instead of handwriting



- Learning and creating raps, rhythms, rhymes, and jingles

Auditory Learners

- Syllabus/Reading assignments given to students early so they can prepare for accommodations

- Books in accessible formats.

- Request that handouts are posted on the web

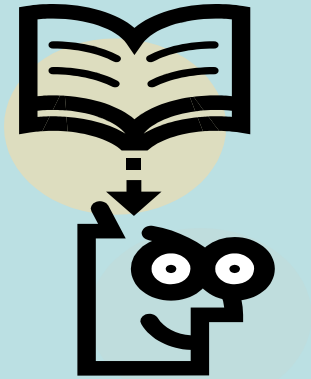
- Read and describe what you put on the board.

Auditory Learners

- Give out handouts that are inaccessible <u>early</u> so that they can be put onto tape
- Orient students to what you will be discussing and why
- Offer verbal support to graphs and pictures
- Create study tapes with the information needed for the test. Study groups can prepare tapes and duplicate them for each other

Analytic/Applied Learners

- Know the context of what you will be learning. What is the larger picture?



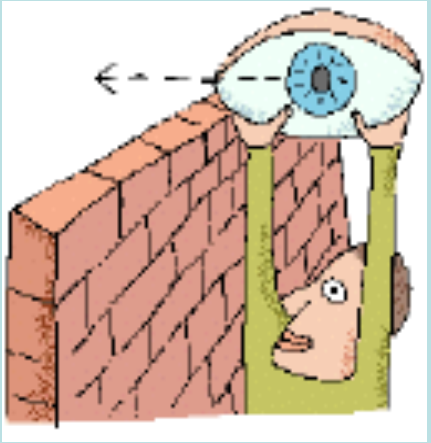
- Build on concepts from the materials

- Find ways of integrating knowledge

Analytic/Applied Learners

- Allow for group work to build on other people's ideas and present information in an original way

- Present students with case studies and scenarios for them to apply problem-solving skills



Reflection: What have you learned?

1.

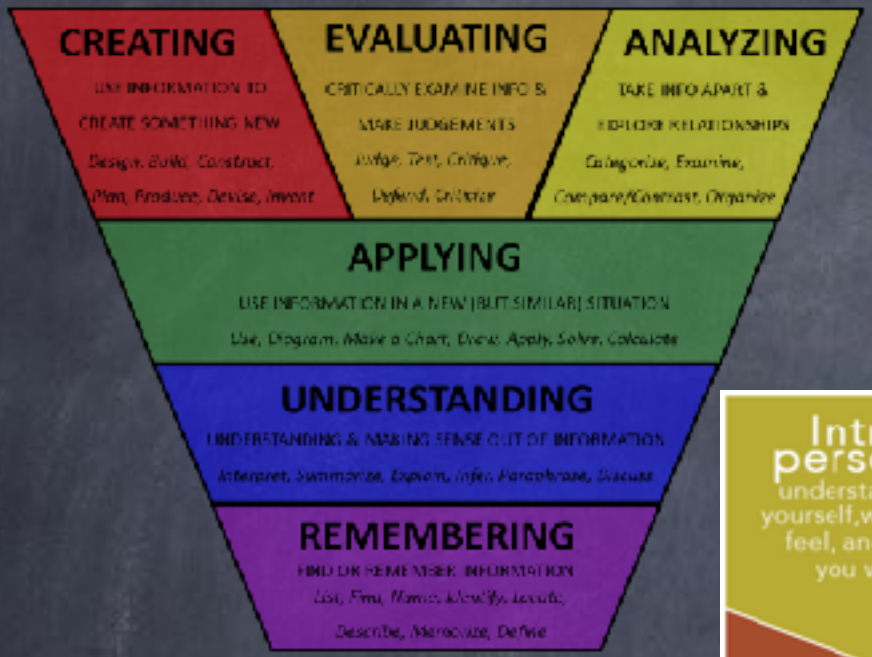
2.

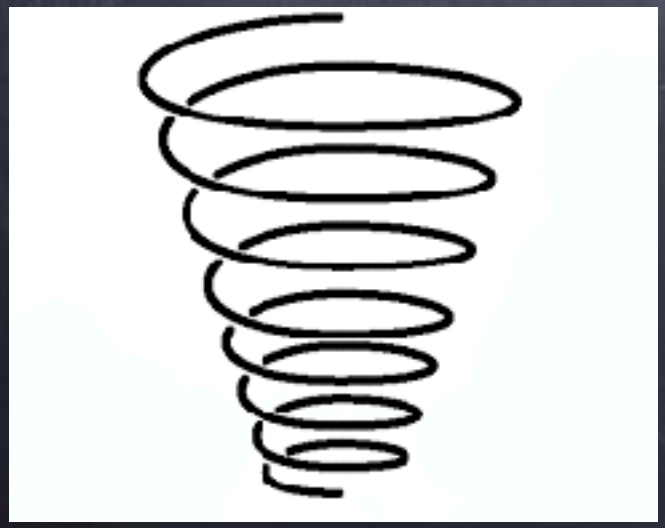
3.

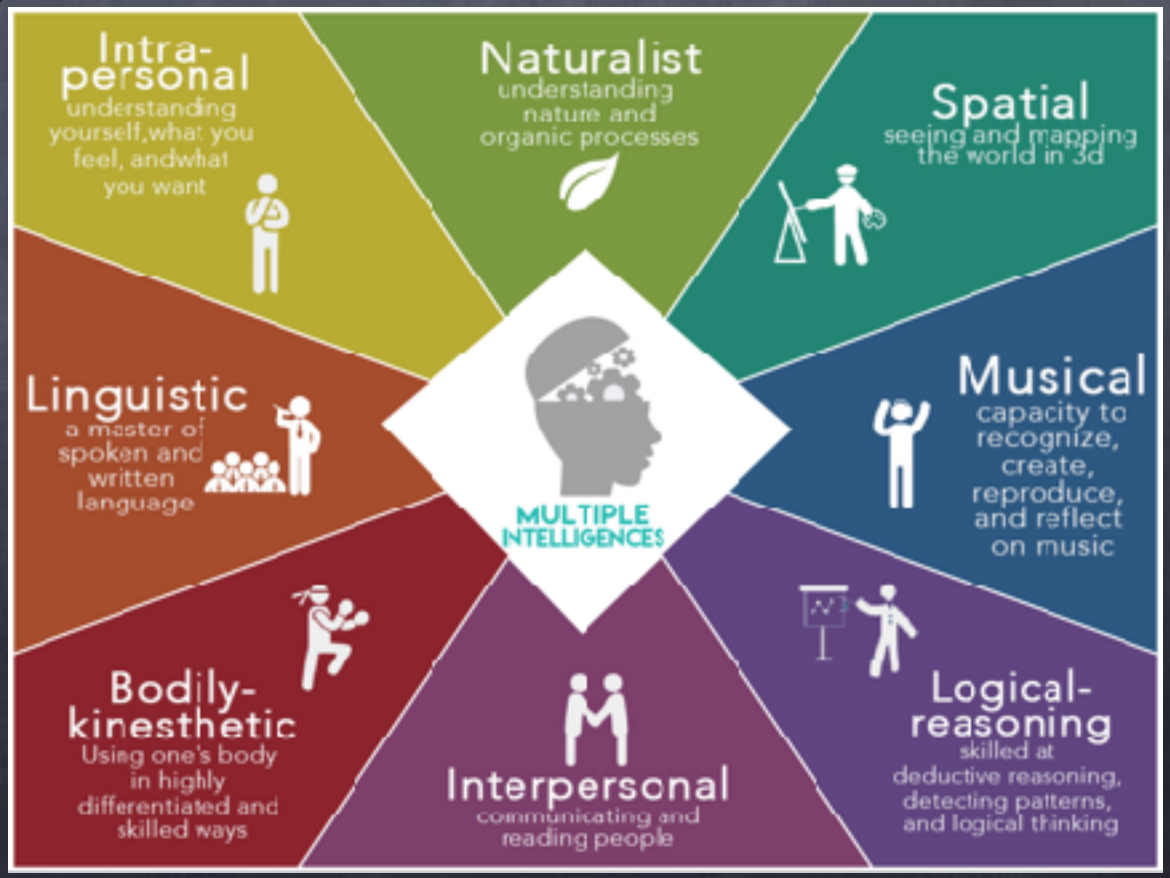
Objective/Outcome:

What is the traditional way this objective has been taught?

UDL Cheat Sheet







Marcia Tate's Teaching Techniques

Technology

Field Trips

Graphic organizers, semantic maps and word webs

Role plays, drama, pantomimes, charades

Mnemonic Devices

Visuals

Writing and journals

Games

Visualization and guided imagery

Movement

Work study and apprenticeships

Manipulatives, experiments, labs and models

Music, rhythm, and rap

Drawing and artwork

Humor

Storytelling

Reciprocal teaching and cooperative learning

Project-based and problem-based instruction

Brainstorming and discussion

Metaphors, analogies and similes

Brainstorm as many ways as possible to teach this objective.

Use UDL!

What are three teaching techniques you might use to teach this objective?

What barriers might occur with how this objective will be taught? Consider Disability (learning, attention, physical, blindness, deafness, psych/trauma, etc...), linguistic diversity and learning styles. What are possible accommodations?

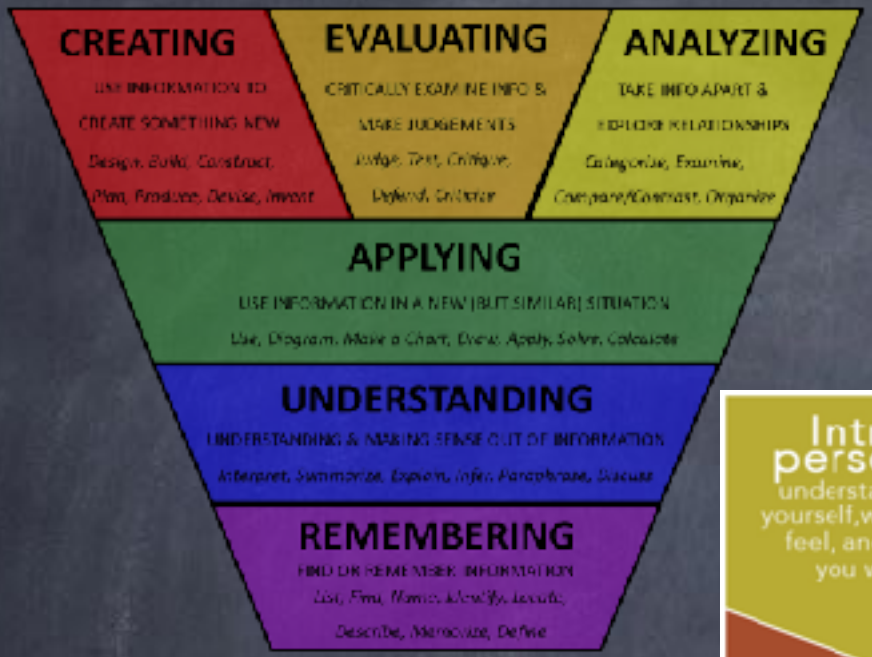
Objective/Outcome:

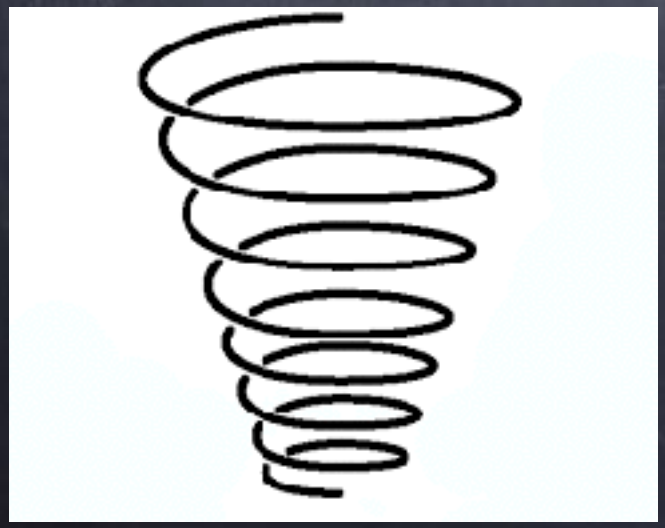
Students will understand the lobes of the brain and how they are connected with dyslexia

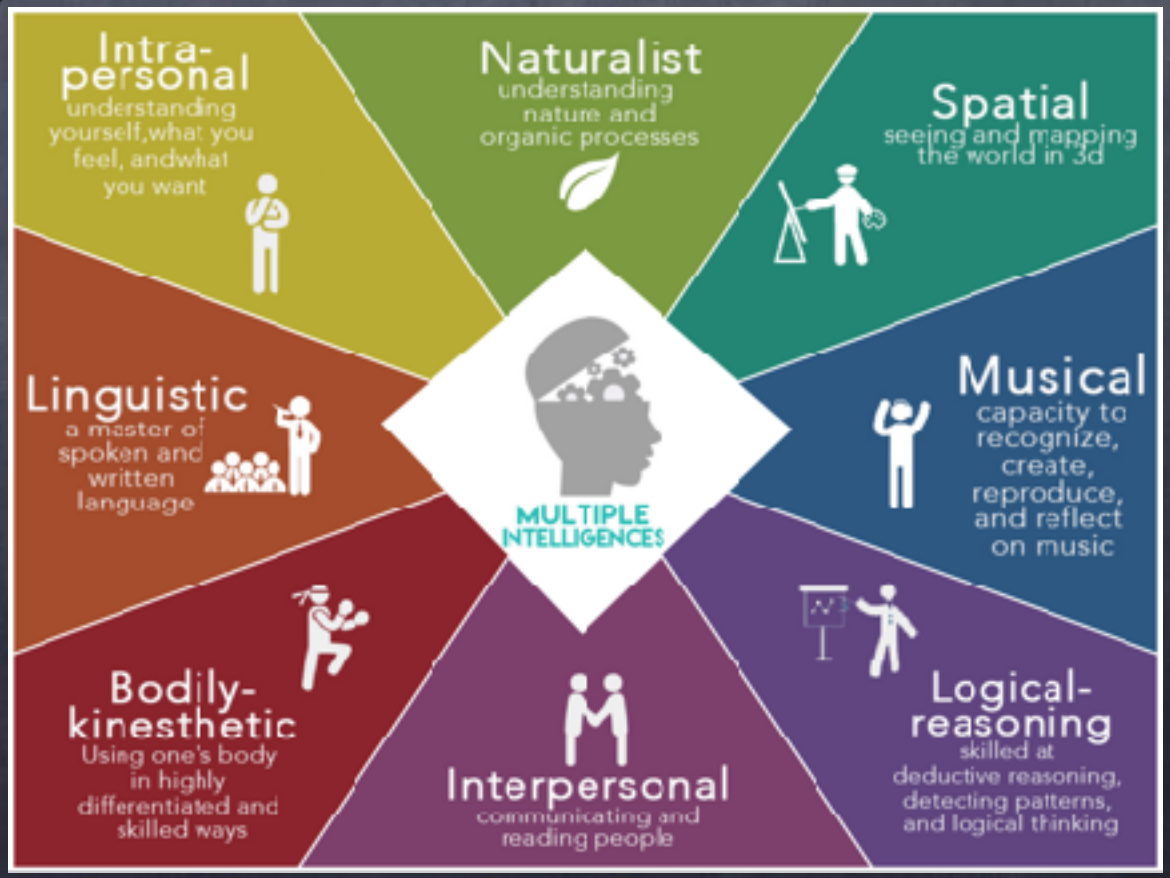
What is the traditional way this objective has been taught?

Traditionally the trainer lectures on dyslexia and shows slides of the differences in the brain.

UDL Cheat Sheet







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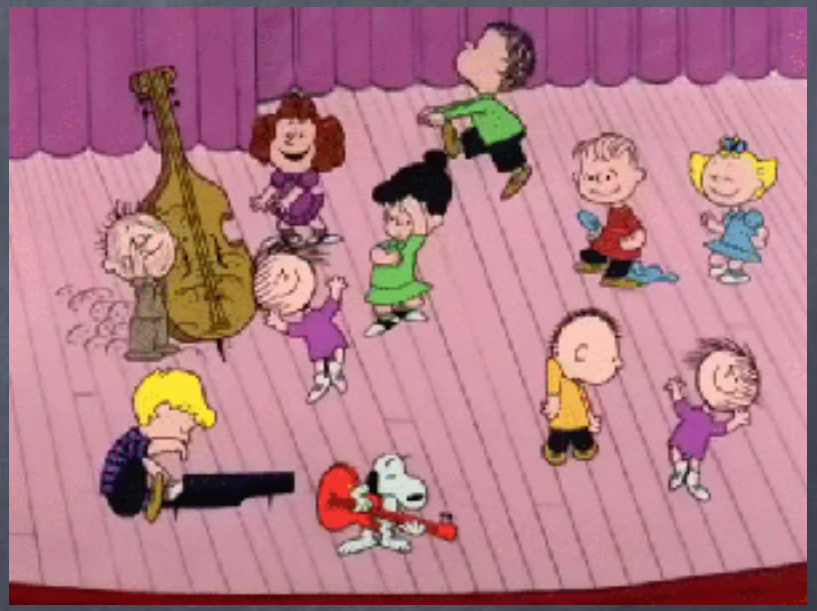
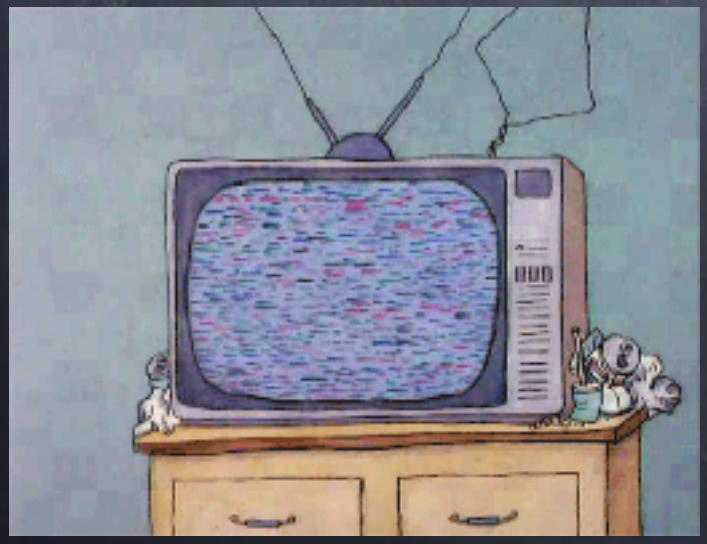
Brainstorm as many ways as possible to teach this objective. Use UDL!





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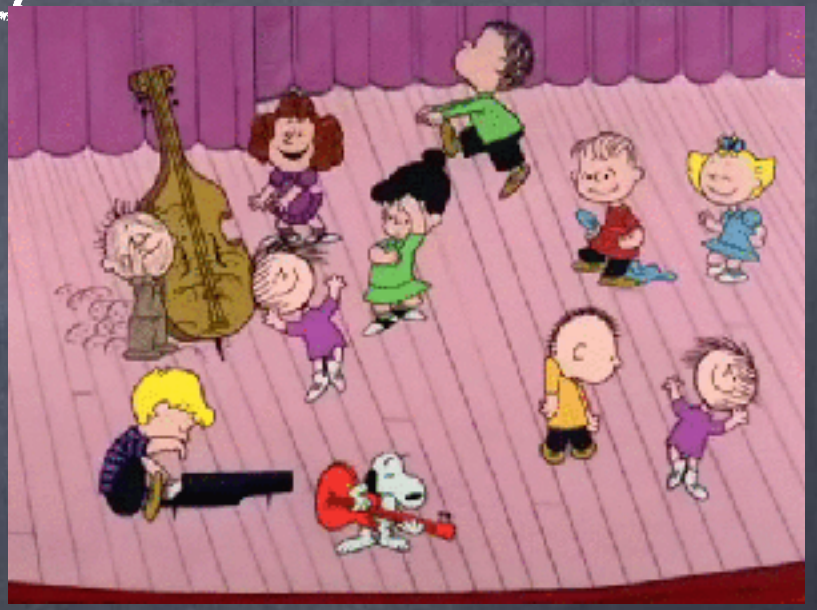

What barriers might occur with how this objective will be taught? Consider Disability (learning, attention, physical, blindness, deafness, psych/trauma, etc...), linguistic diversity and learning styles.

If someone has a physical disability, they will not be able to dance with their feet. I could adjust this by offering hand, head or eye movements instead.

Some students want to write down the different names of the brain parts. I could write those down.