

Teaching & Learning Styles



By: M. Elia Flores, M.Ed., R.T.(R)



Objectives

The participant will:

1

Understand Teaching & Learning Styles

2

Discuss why students have difficulty learning

3

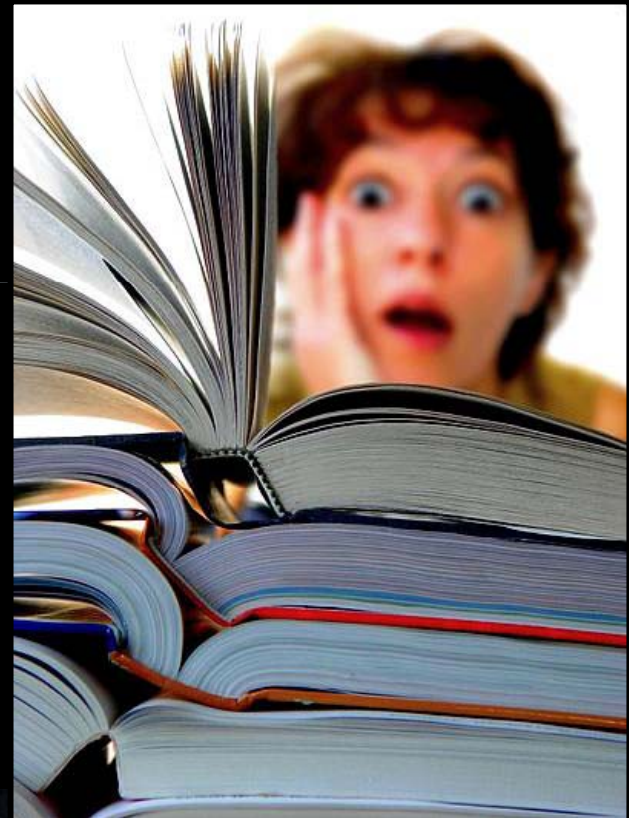
Learn about matching teaching & learning styles

4

Define A good teacher

Learning Styles

- Understanding learning styles may be the key to helping your students improve in your class





What Is Learning?

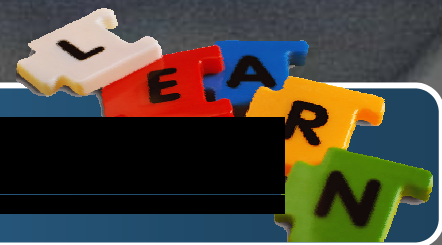
- “Learning is a process of acquiring knowledge or skills through study, experience or teaching.”
www.wikipedia.org
- “A change in neural function as a consequence of experience.”
www.medaus.com
- Simon defined learning as changes in a system that result in improved performance over time on tasks similar to those done previously.”
www.acypher.com



What Is A Learning Style?

- A preference; it is the way we perceive and process things the best
- We all have our own preferred method of learning and that is our learning style

How Do You Learn Best?



- Learning/understanding about learning styles helps us learn more effectively



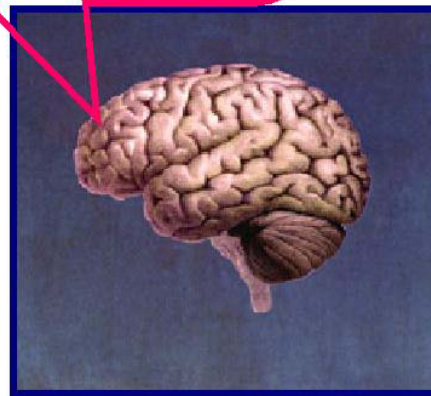
I learn best when I can

_____...

When you were a student...

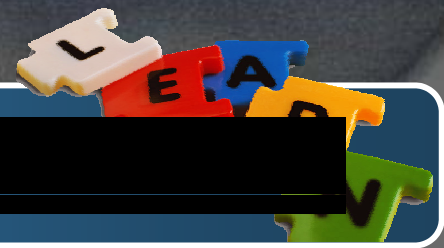
- How did you come to terms with what you had to learn?

I only learn
what's is
necessary to
my
survival!



Are you surprised ?





Learning Styles



Patterns & Sequencing

- BANANAS
- CHOCOLATE
- BIRTHDAY CARD
- DEODORANT
- PEN
- SUNGLASSES
- MAGAZINE

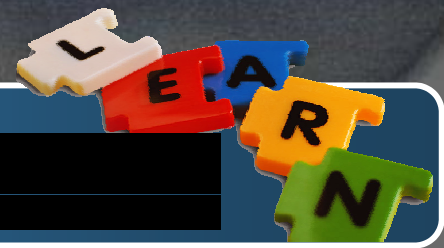
Your task is to remember them in the same order



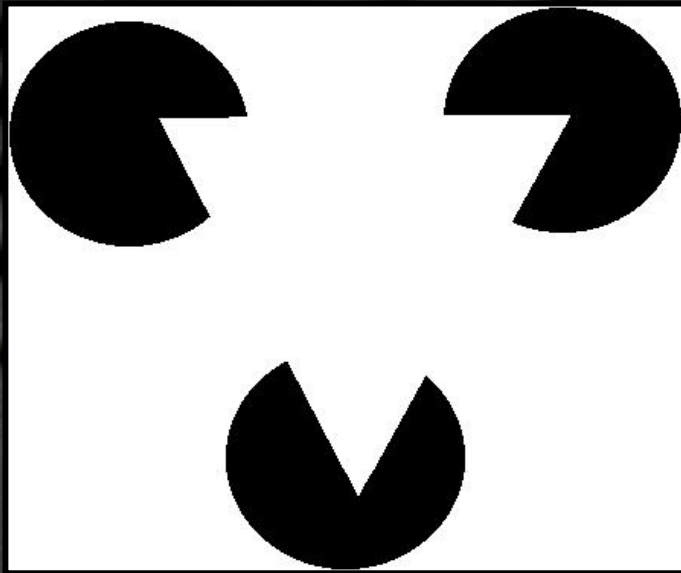
Pattern & Chunking

■ 131981676765432

Try to remember this number

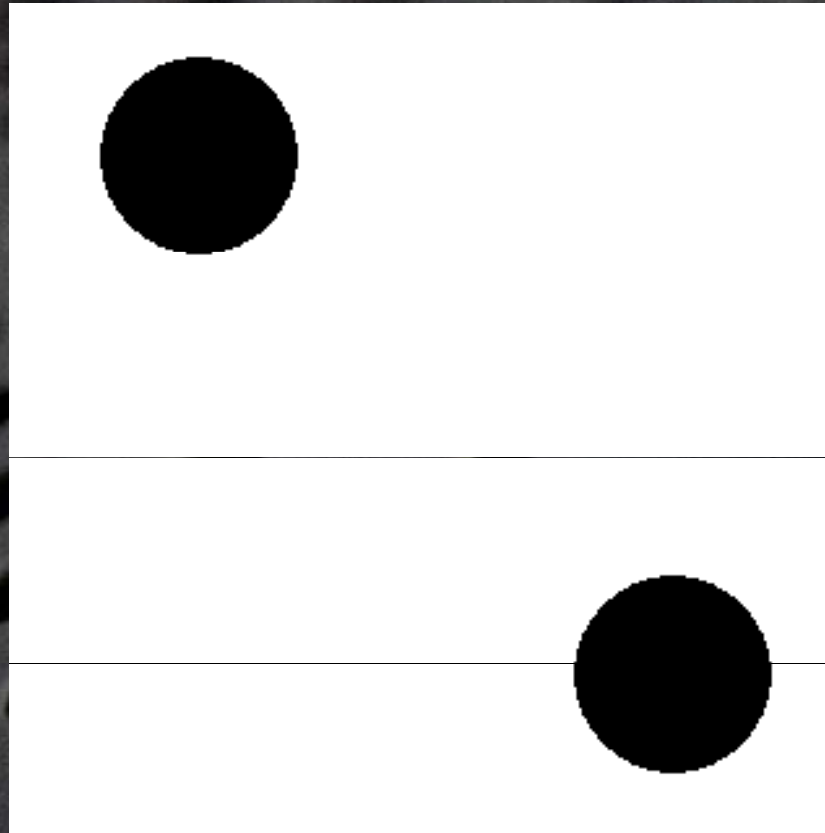


What does your brain perceive and process?





Are the dots moving left to right or up and down?





Learning Styles

Aural or Auditory

Visual

Verbal

Kinesthetic

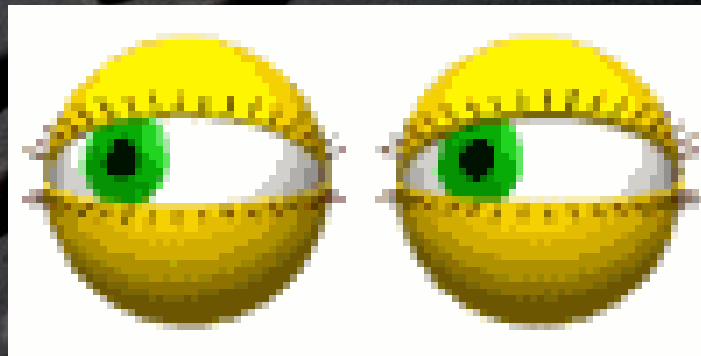
Active & reflective

Sensing & intuitive

Sequential & global

Visual Learner “Seeing is hearing”

- The visual memory records that which comes to us through the eye, or, in other, words, it is the avenue which helps you to remember all that you see.
- 60% of the population is visual
- We are a society of media, visual aids, digital...



Verbal-Auditory Learner (“their ears are their eyes”)

- Remember things best when explained in words or written
- Learn best from books and lecture



Kinesthetic Learner

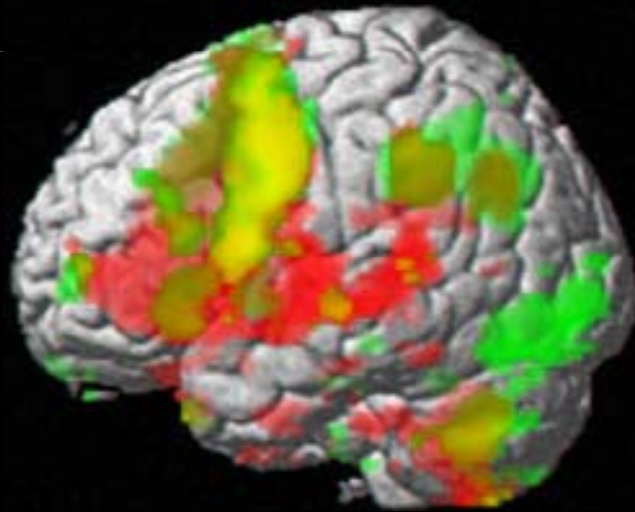
- Innate kinesthetic memory
- Things learned are through feel & manipulation
- With concrete instructions & techniques



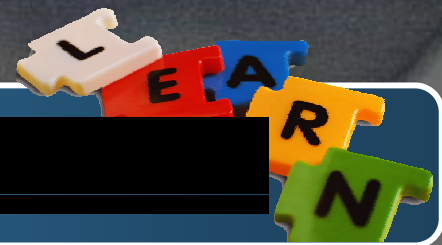
www.monkey.com

Sight & Sound (Visual-Auditory)

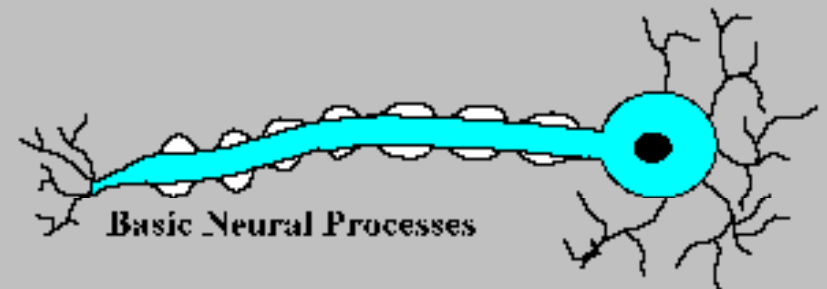
- **Brain waves.** A technique called functional MRI can show active areas of the brain as subjects perform tasks, as in this image showing areas active for visual memory (green), aural memory (red), and both types of memory (yellow).



About The Brain



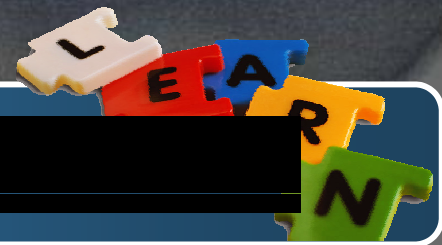
- It's a complex system of distinct elements
- Searches to construct meaning out of patterns perceived
- Can be altered by experiences
- Construction of knowledge begins with activation



Lack of activation?

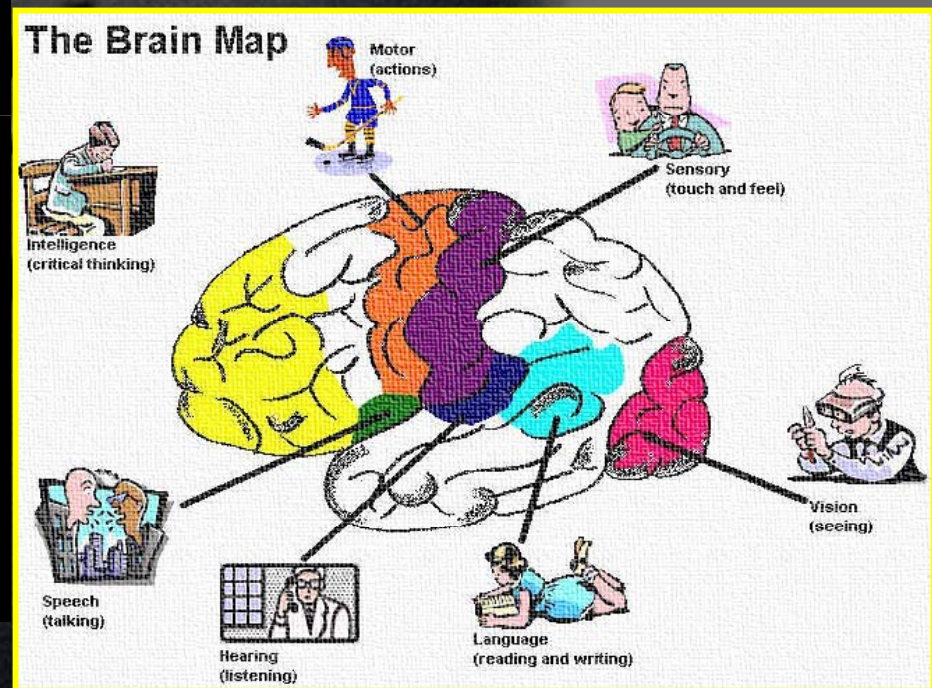


What else do we know?

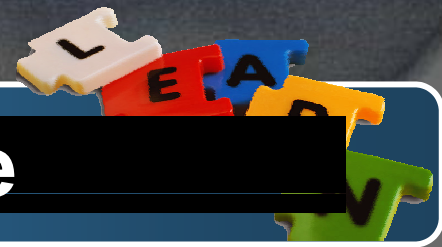


- Quality of human learning is related to our emotional state
- The brain uses two distinct memory systems

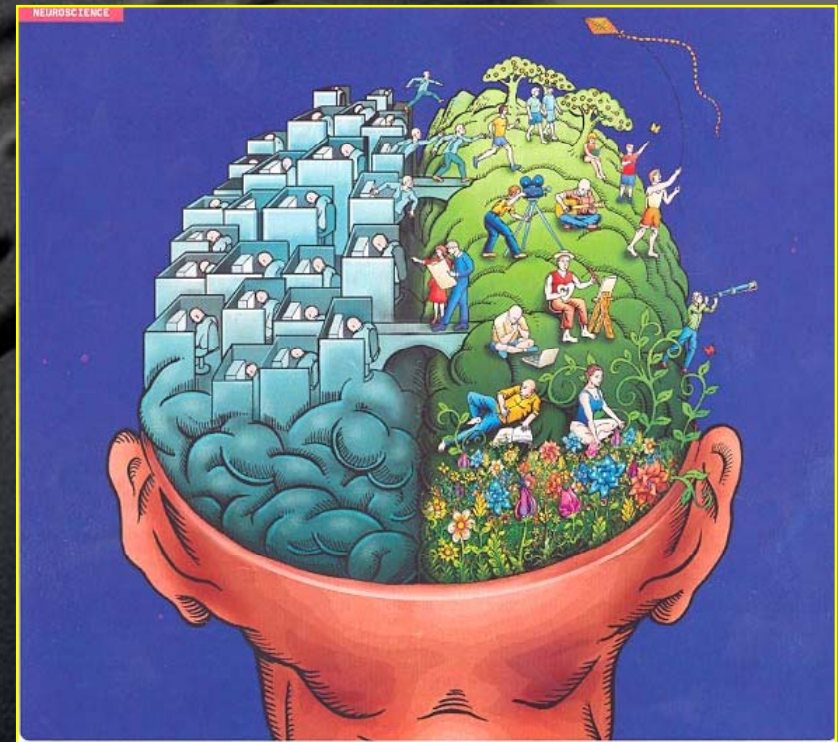
What are the two distinct systems?



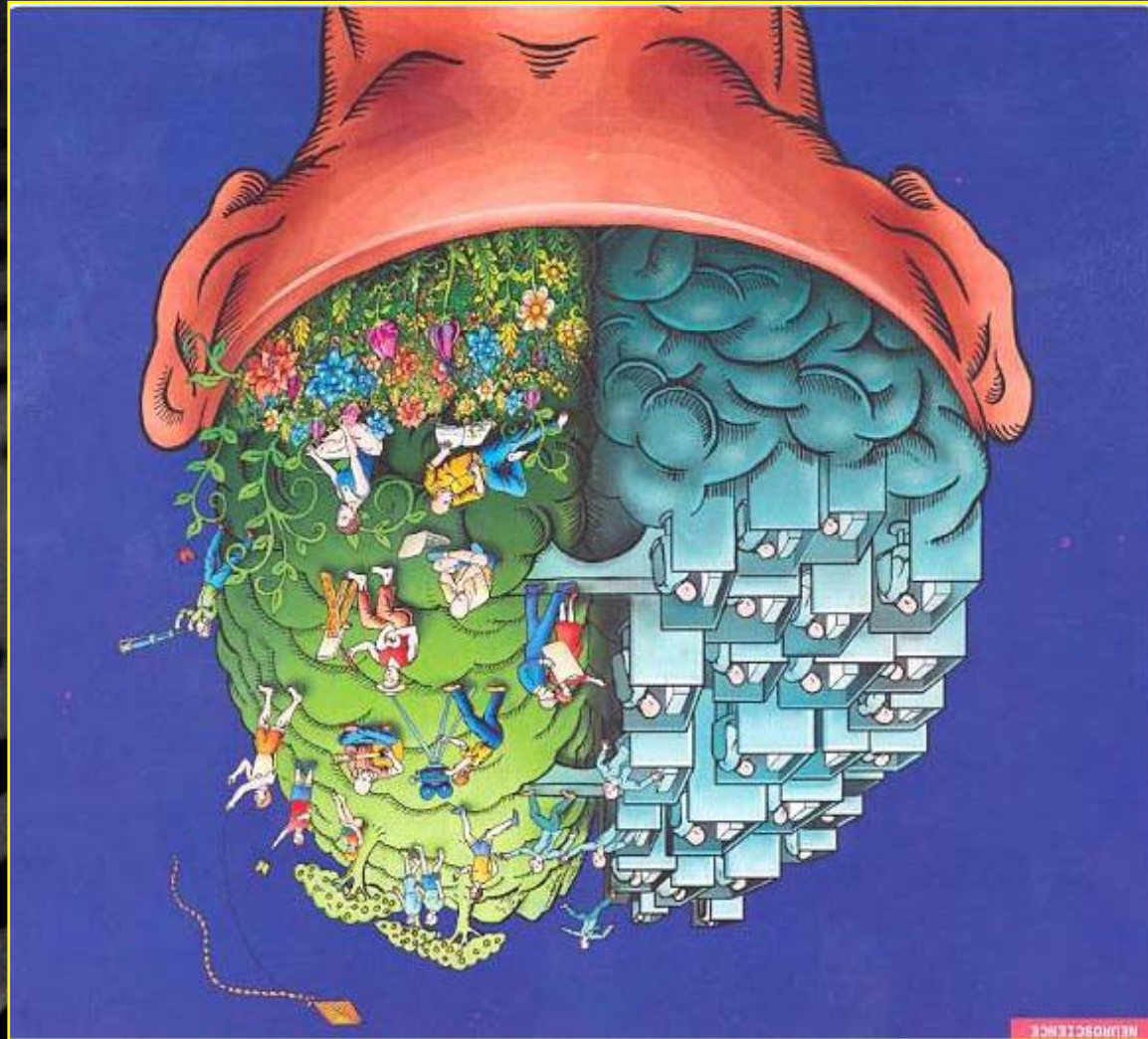
Left side and Right side



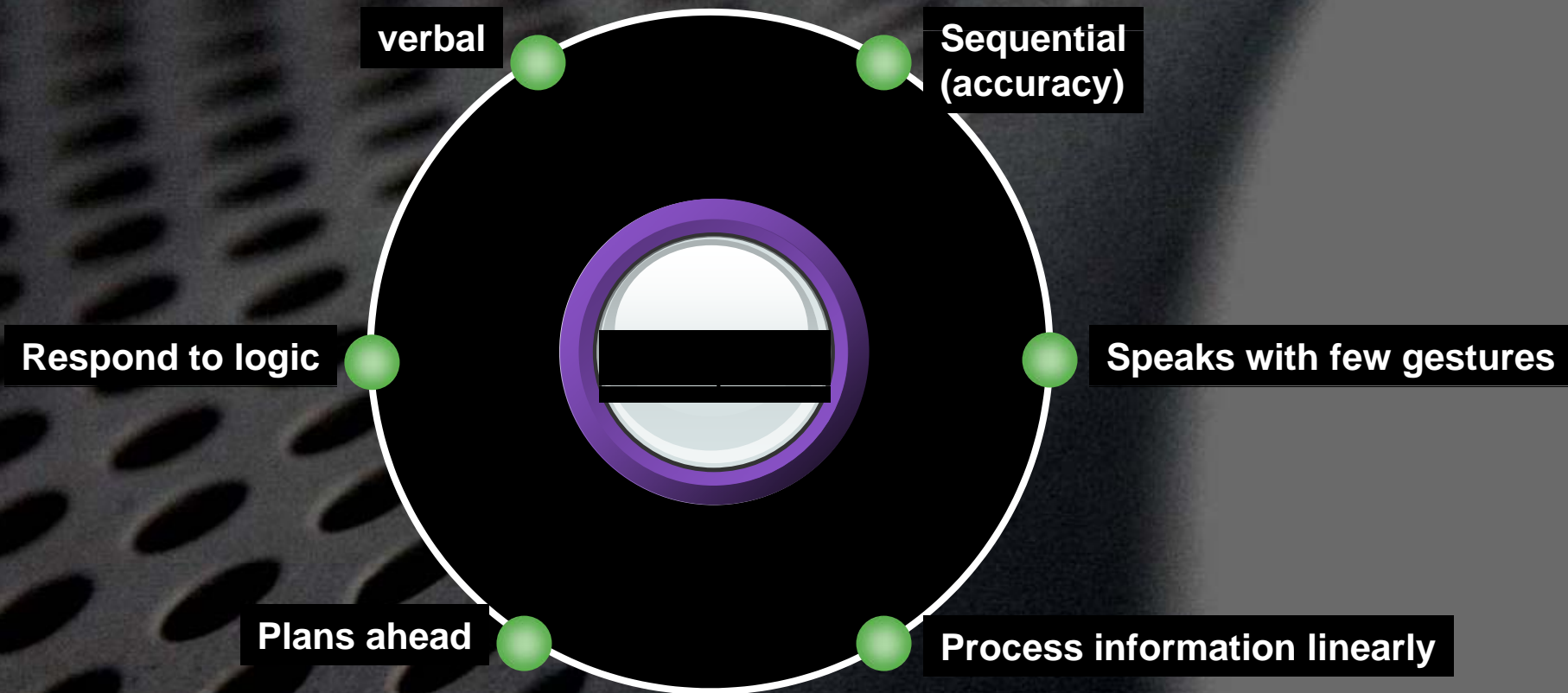
- Left side specializes in sequential/linear operations (math, logic/language)
- “Left Brain”
- Right side allows for holistic, global vision (music, spatial/intelligence)
- “Right Brain”



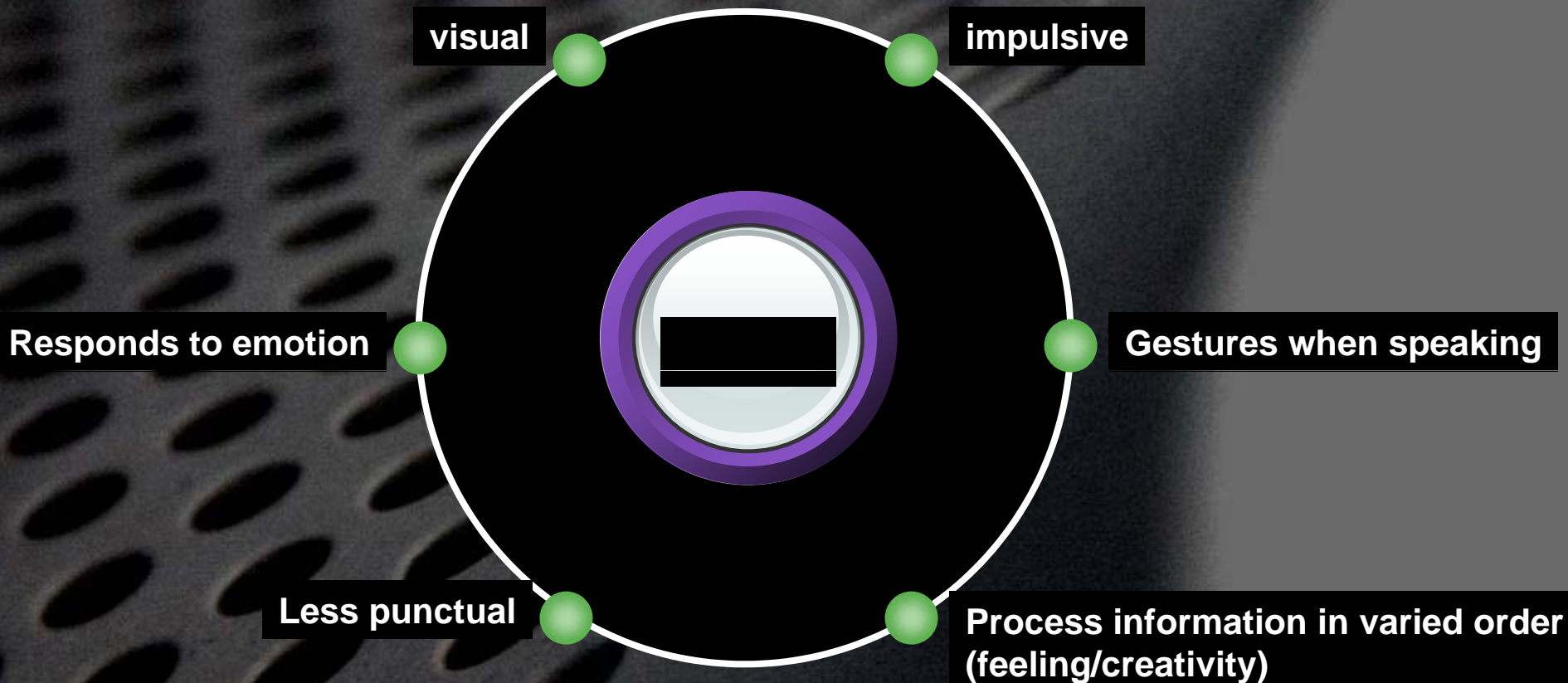
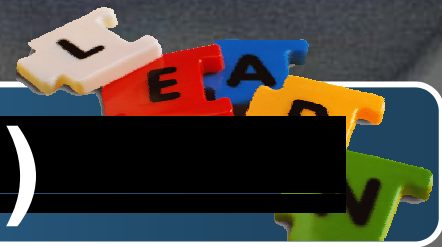
“Upside Brain”



Left Brain (Analytic)

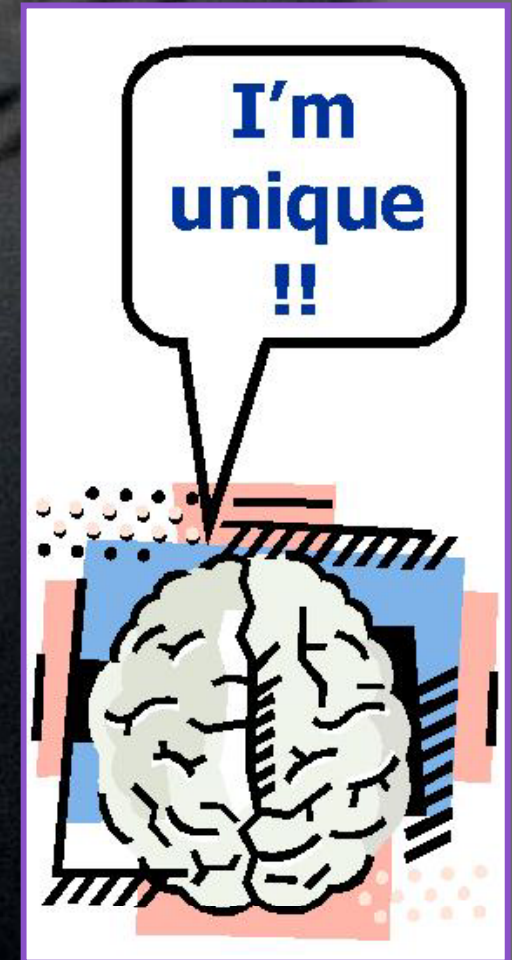


Right Brain (Global)



No One Brain Is Alike!

- If we wish to be effective educators we must:
 - Engage both hemispheres
- How?
- Exercise both sides of the brain
 - Through problem-solving activities
 - Discussion groups
 - Peer teaching
 - Building or constructing
 - Scenarios
 - Role-playing
 - More....



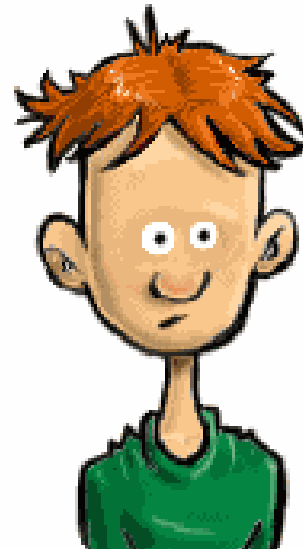
Learning...

We learn

- ❑ 10% of what we read
- ❑ 20% of what we hear
- ❑ 30% of what we see
- ❑ 50% of what we see
and hear
- ❑ 70% of what we say
- ❑ 90% of what we say
and do

VERNON A. MAGNESEN*

*Quoted in *Quantum Teaching*, by Bobbi DePorter,
Mark Reardon and Sarah Singer-Nourie, published by
Allyn and Bacon, 160 Gould Street, Needham Heights, MA 02194.



ARTIE.COM

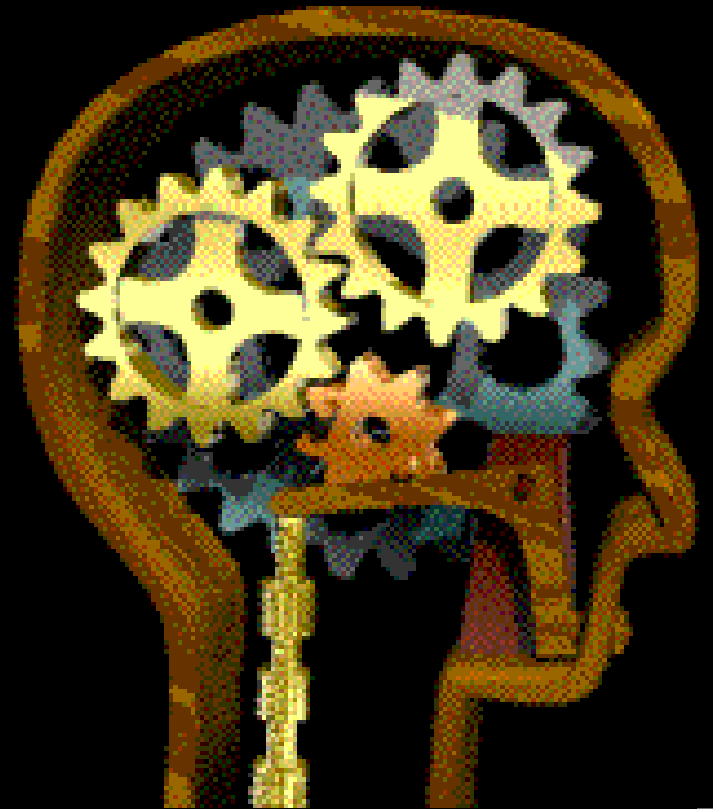
Fact:

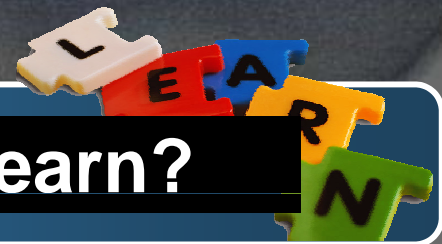
- Individuals perceive/process information in very different ways
- If for example:
 - Language is perceived as necessary for survival...it will be learned!!!
 - Otherwise students will only memorize what is useful for the next exam
 - Then after the exam they will forget everything....
- No one brain is alike



Fact is...

- Learning is messy!

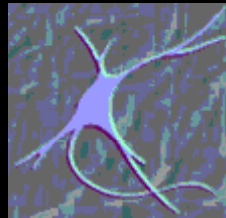




So what really happens when we learn?

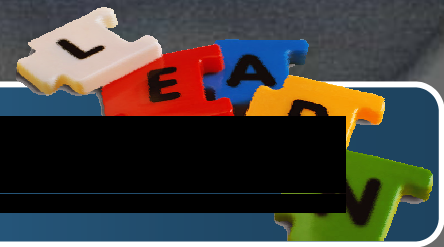
■ Neurones and synapses:

- Learning takes place when neurons communicate with each other



-
- When neurons receive sensorial inputs from dendrites
- Axon start with a neuron but stretches to another neuron
- Put them together and you have a “network”
- Communication between neurons is facilitated by the myelin

Learning Styles

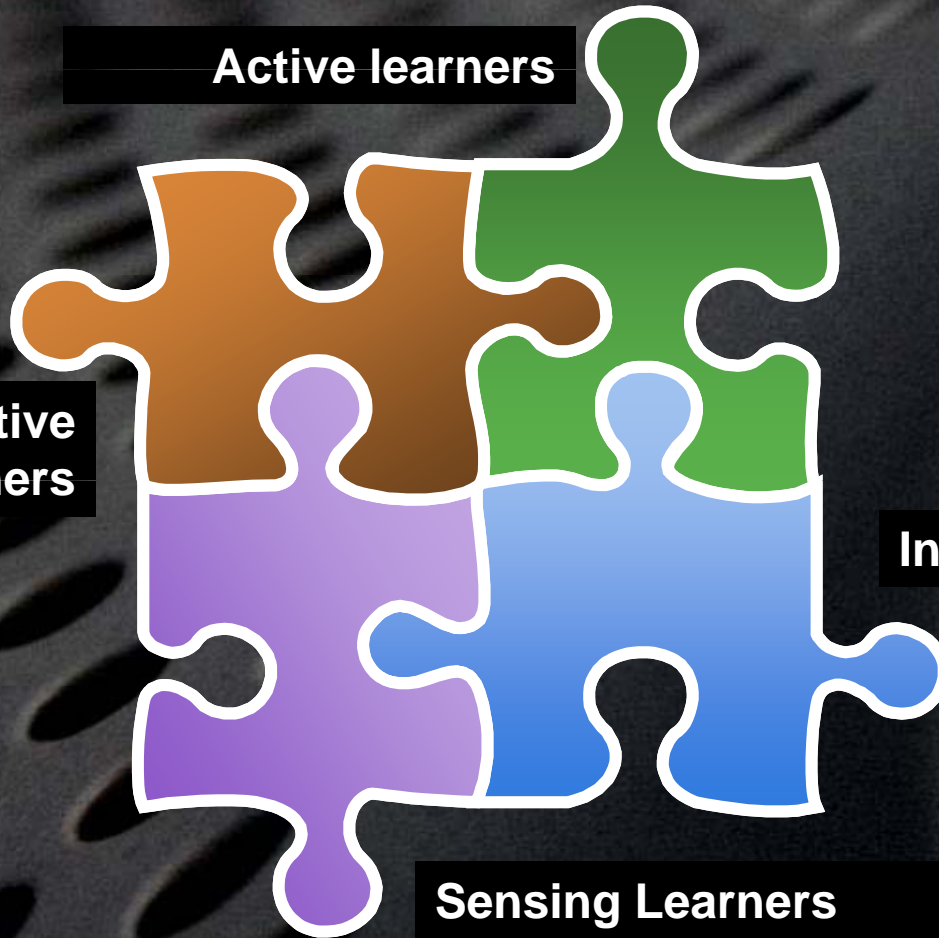


Active learners

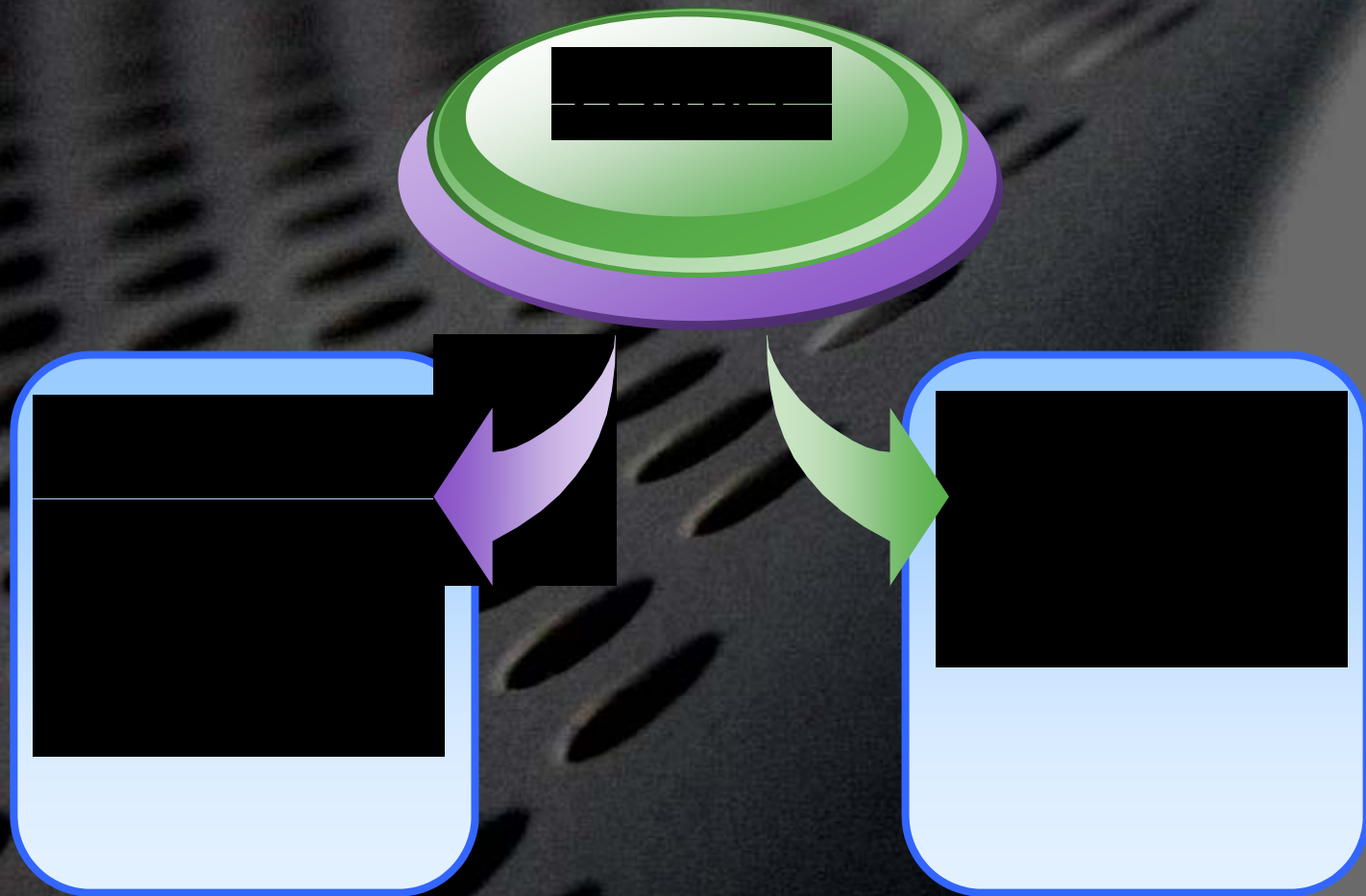
Reflective
Learners

Intuitive Learners

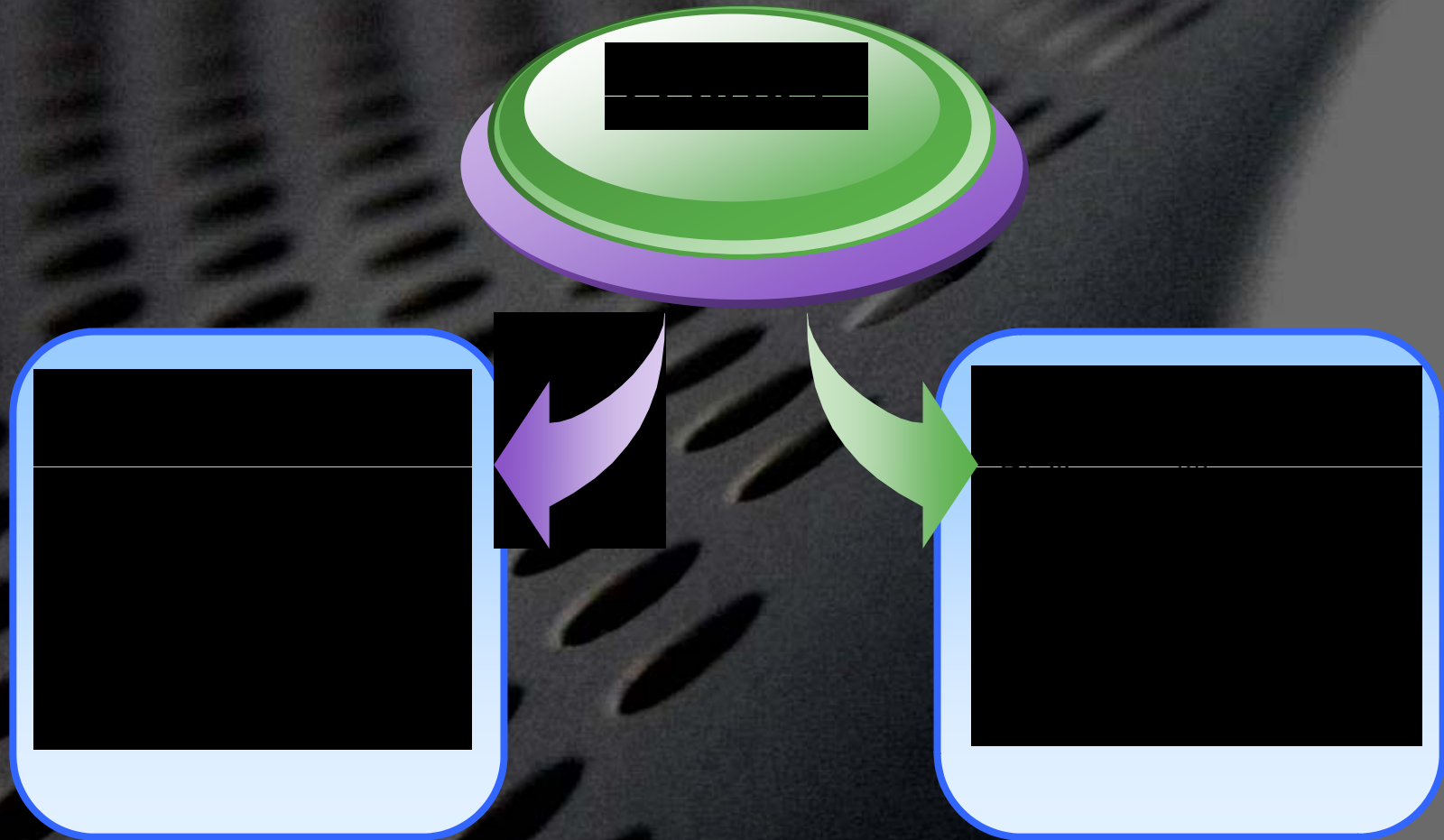
Sensing Learners



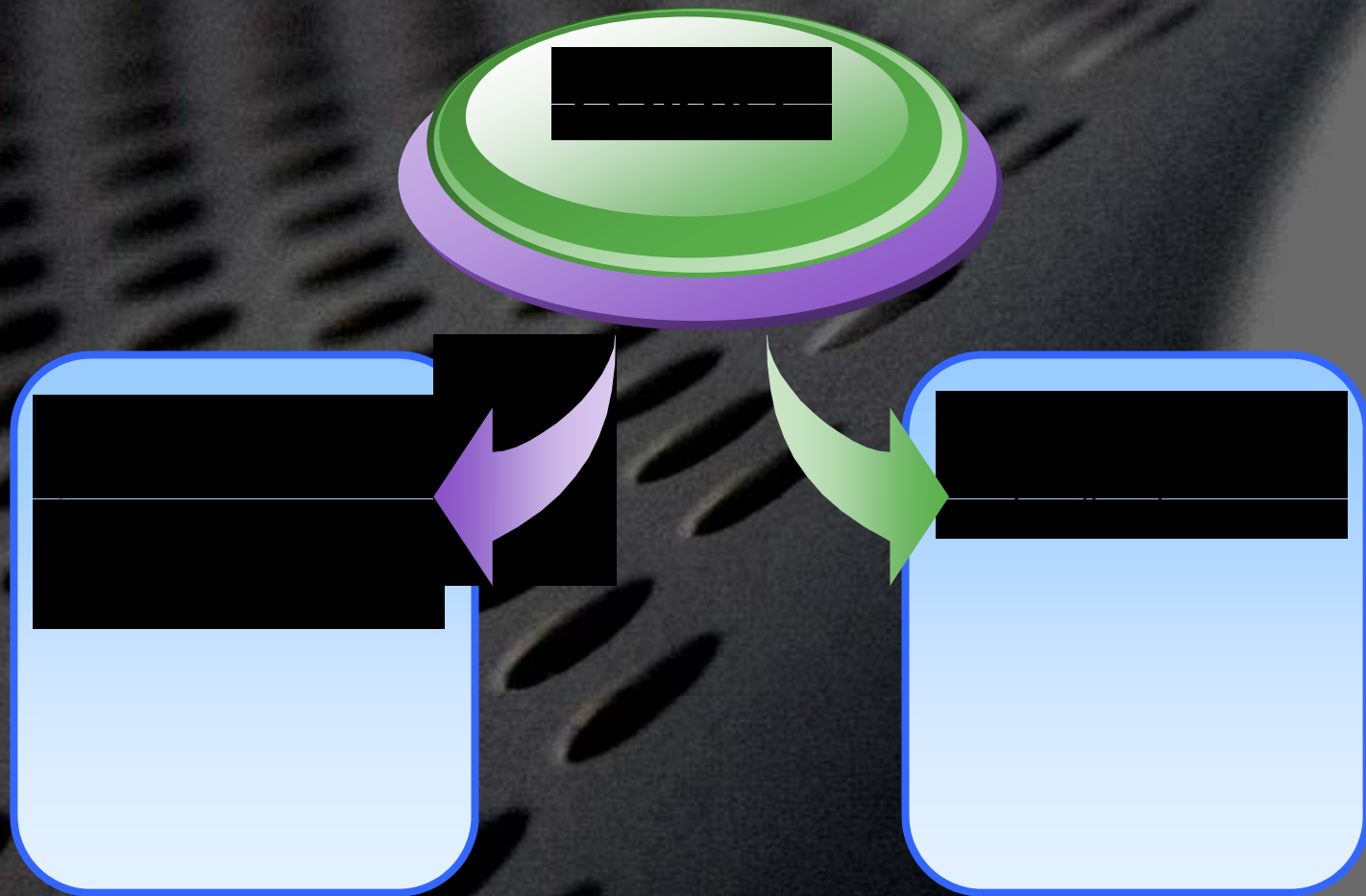
Active vs Reflective



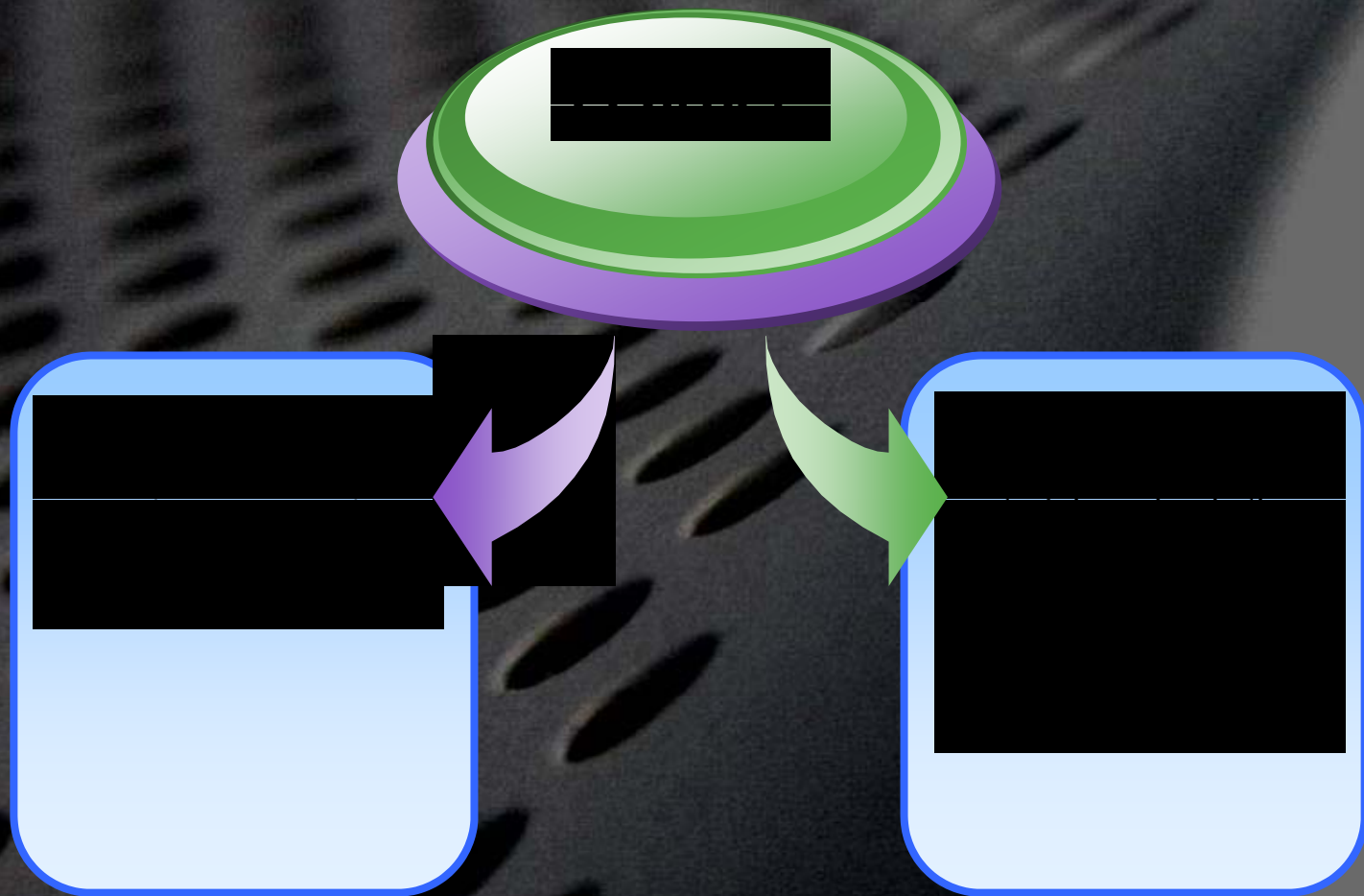
Sensing vs Intuitive



Visual vs Verbal

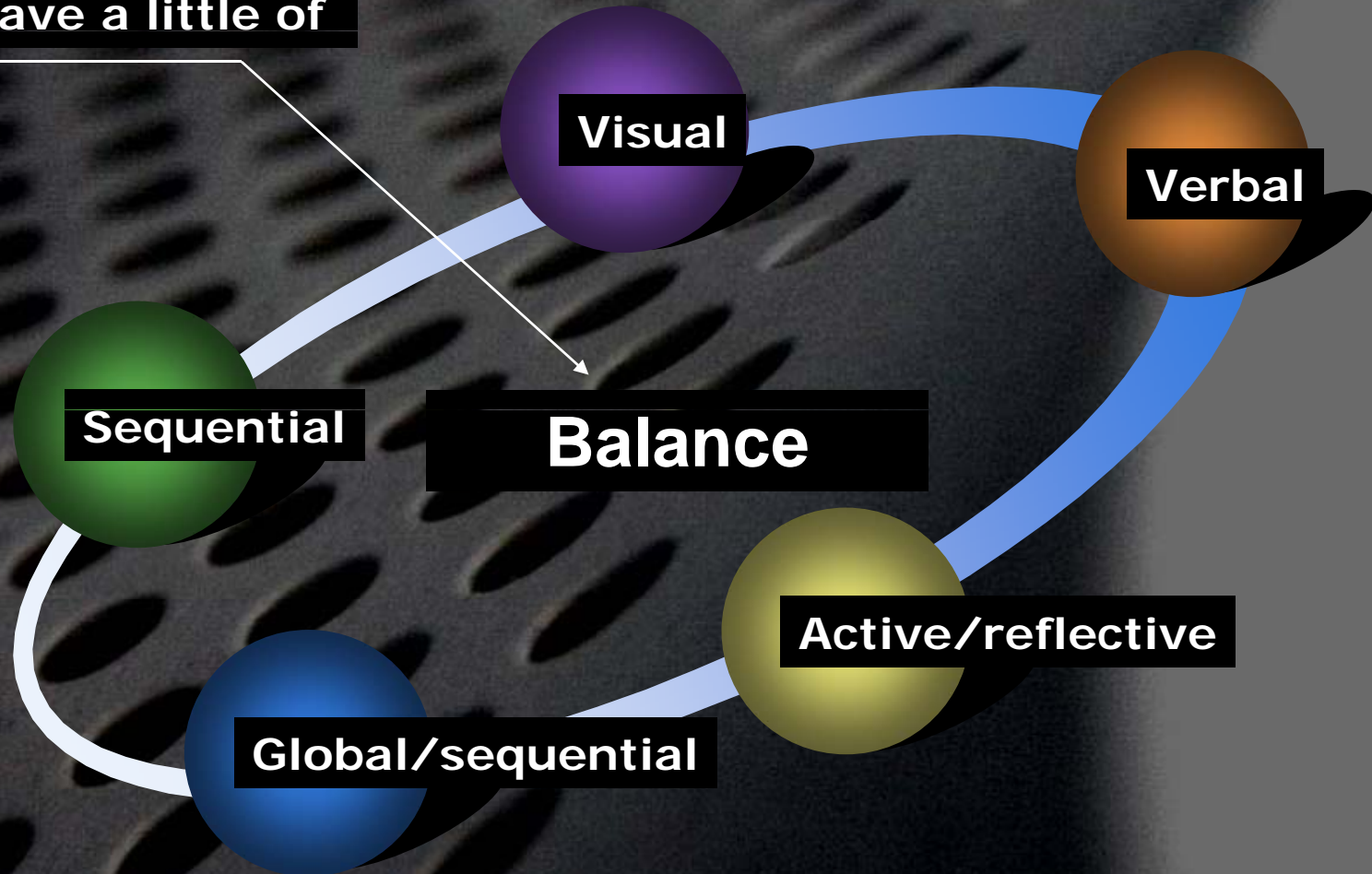


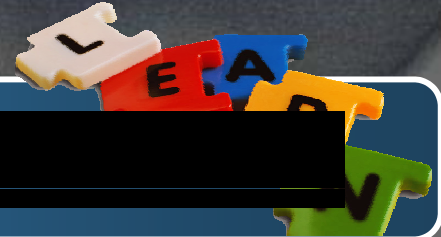
Sequential vs Global



Achieving a balance

We have a little of





Fact:



Important to remember

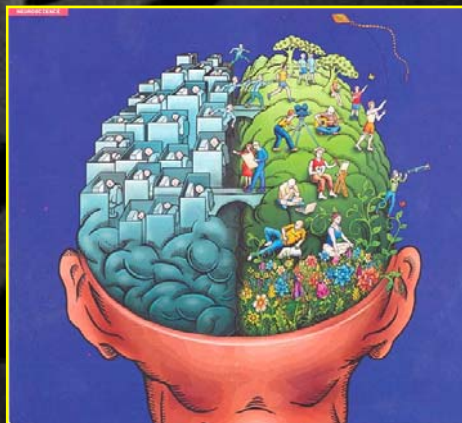
- Understanding learning styles is understanding brain function
- Both sides of the brain can reason, but by different strategies
- One side might be dominant
- People think and learn in different ways



How Right-Brain vs Left Brain Thinking Impacts Learning



| <u>Left brain</u> | <u>Right brain</u> |
|-------------------|--------------------|
| Logical | Random |
| Sequential | Intuitive |
| Rational | Holistic |
| Analytical | Synthesizing |
| Objective | Subjective |
| Looks at parts | Looks at wholes |





Visual Learner Characteristics

| <u>Visual learner</u> | <u>Learning suggestions</u> |
|---|---|
| Good at spelling but forgets names | Make outlines of everything |
| Needs quiet study time | Copy what's on the board |
| Has to think awhile before understanding lecture | Diagram sentences |
| Ask teacher to diagram things out | Use flashcards |
| <u>www.oldandsold.com</u> | Color code, use highlighter, circle/underline words |



Auditory Learner Characteristics

| <u>Auditory learner (Aural)</u> | <u>Learning suggestions</u> |
|---|--|
| Likes to read to self out loud, good with grammar | Use word association to remember facts/lines |
| Can't keep quiet for long periods | Record lectures/taping notes after writing them |
| Is good at explaining, enjoys music | Participate in group discussions |
| Remembers names | Rhythm and rhyme |
| Is good in study groups, reads slowly | www.oldandsold.com |



Kinesthetic Learner Characteristics

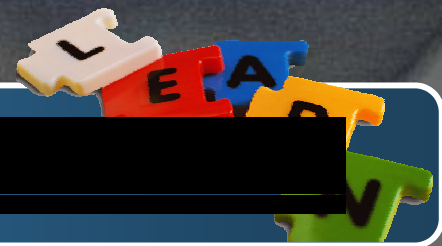
| <u>Kinesthetic learner</u> | <u>Learning suggestions</u> |
|--|--|
| Takes breaks when studying | Study in short blocks |
| Can't sit still for long Is fidgety during lectures | Studying with others |
| Does not have good hand writing | Use memory games, flash cards to memorize |
| Likes science/lab | |
| Likes role-playing, loves music | www.oldandsold.com |



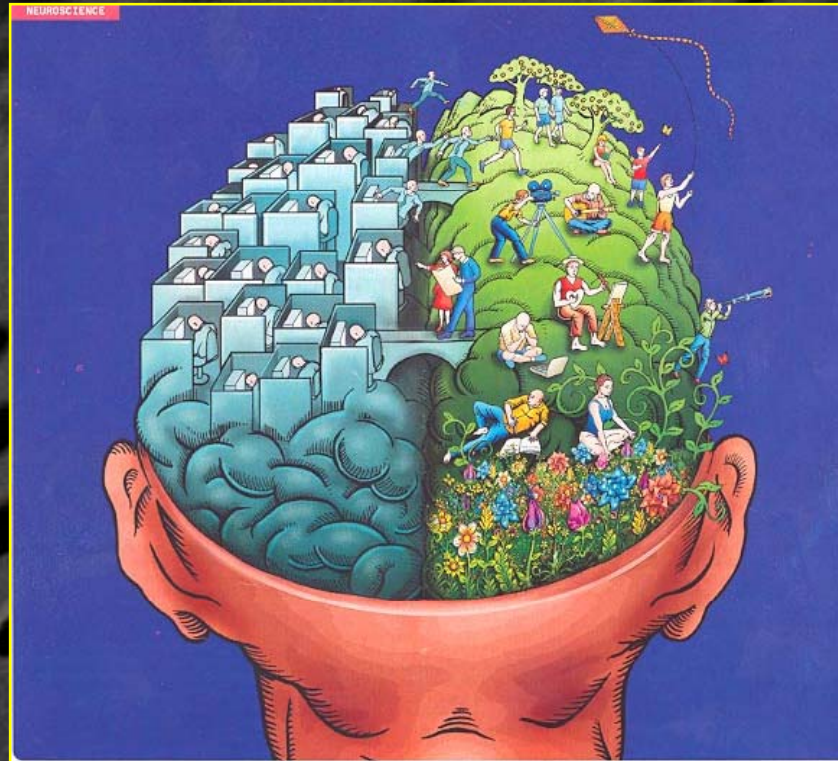
FACT:

- » For every 10 students you will find:
 - » 2 auditory learners
 - » 4 visual learners
 - » 4 tactile kinesthetic learners
- » Yet 90% of all teaching is auditory
- » That means we shortchange 8 out of 10 students!

In a nutshell



- Left-brain thinkers tend to shine in mathematics, technology and science



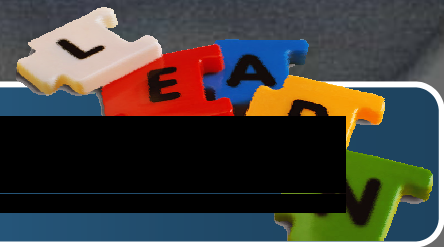
- Right-brain thinkers are better at conceptualizing and creating

Take Note Of Your Students Expressions?



■ library.thinkquest.org

delivery.viewimages.com



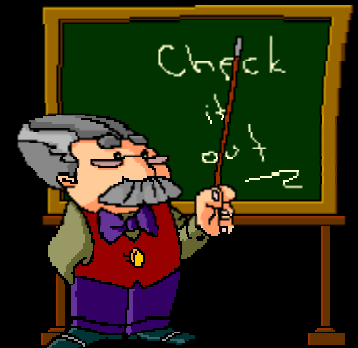
www.unltd.org.uk



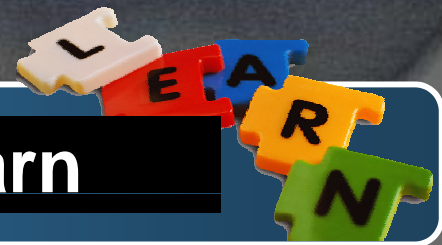
Teaching

■
A teacher who is attempting to teach without inspiring the pupil with a desire to learn is hammering on a cold iron. - Horace Mann

He who dares to teach must never cease to learn. - Anonymous



We Tend To Teach The Way We Learn

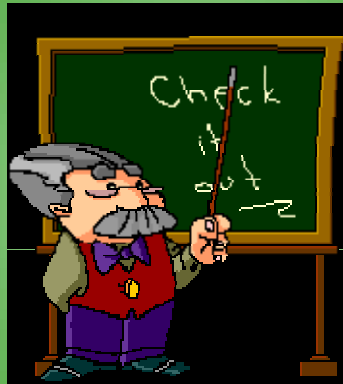


- 50% of teachers are auditory learners themselves
- Model



www.fultonschools.org/teacher

Do You Know Your Teaching Style?



Direct Instruction

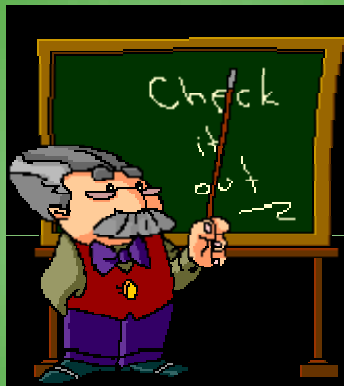
Indirect Instruction

Discussion

Cooperative Learning

Self-Directed Instruction

What Teaching Method?

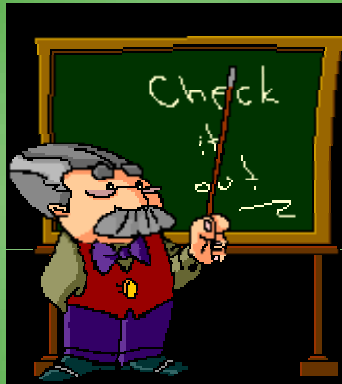


Rote Learning

Guided problem-solving

Diagnostic Teaching

What Teaching Techniques?



Lecture/Discussion

Grouping

Tutoring

Games/Simulations

Instructional Media

Direct Instruction (Formal)

- **Instructor-centered**
 - Provides students with as much information through lecture, explanations and problem-solving
- **Allows minimal student-teacher interaction**
- **Pros**
 - Effective when learning fundamental facts, rules, formulas or sequences
- **Cons**
 - Not effective for higher level thinking, analysis and evaluation



www.rit.edu

Indirect Instruction

- **Instructor-student centered**
 - Instructional stimuli is presented in the form of materials, objects, and events
 - Students take an active role in discussing and testing their own conclusions
- **Pros**
 - Most effective at teaching a process or method of learning
 - Allows for a dynamic teaching and learning environment



Discussion

- Instructor-student centered
 - Involves free/interactive dialogue between teacher and students
 - Requires teacher to give control of the classroom to students
 - Requires an open-mind



www.mosesbrown.org

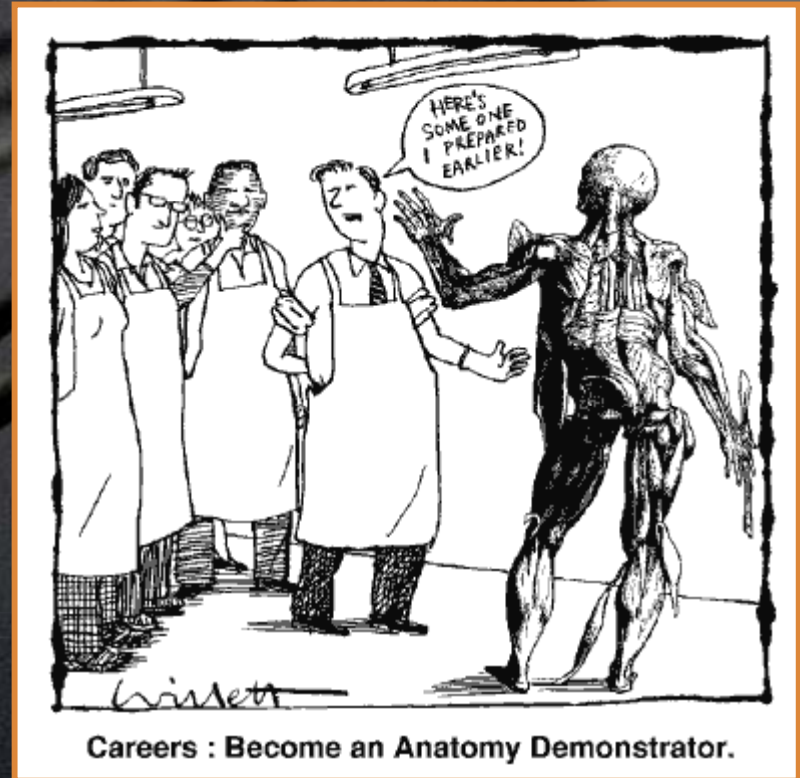
Cooperative Learning (Facilitator)

- Encourages collaboration
 - Instructor encourages student independence in terms of achieving their learning goals (planned activities)
 - Students are encouraged to interact with one another
 - Helps students develop reasoning and problem-solving skills
 - Responsibility is placed on the student



Demonstration

- Instructor-centered approach
 - Models what is expected (skills/processes)
 - Coaches or guides
 - Assists/encourages students through participation
 - Utilizes various teaching styles



Delagator

- Student-centered
 - Instructor delegates
 - designs/implements complex learning projects



Self-Directed Instruction

- Teaches students to take learning into their own hand
 - Self-direct CPR
 - Self-direct on-line courses
- Strengthens thought, reasoning, critical thinking and problem-solving abilities





Matching Teaching/Learning Styles

- It is a recognized fact that it is sometimes difficult to match every learning style
- Research shows that students will gain more knowledge, retain more information and perform better when teaching styles match the learning styles.
- 'It must be remembered that the purpose of education is not to fill the minds of students with facts... it is to teach them to think, if that is possible, and always to think for themselves.' --- ***Robert Hutchins***

Recipe For Good Teaching

Learn students' names

Vary teaching techniques

Use technology effectively



Teach the students
Not just the discipline

Teach with passion

Prepare & assess

Be clear about your expectations

www.giveacaricature.com



Good Modeling

- What do good teachers bring to the table?
 - Dedication, creativity, passion & compassion
- What do good teachers foster?
 - Knowledge
 - Find ways to connect both the new and old
 - Connection between instructor-student
- Poor or uncaring teaching does not result in increased learning



Tangible & Intangible

■ Tangible

- Attitude
- Accessibility to students
- Presence in the class

■ Intangible

- Content/activities you choose for your class
- Standards you set for learning
- Think of the times when you've had a good teacher....what qualities stood out?



Final Proverbs

- I hear, and I forget. I see, and I remember. I do, and I understand. Chinese Proverb
- “Bad teachers distance themselves from the subject they are teaching and in the process from their students....
- Good teachers join self, subject and students in the fabric of life” Parker Palmer from “Courage to Teach”

Whala!

- Having been aware of the importance of teaching and learning styles, perhaps now you can take steps to reach your students who fail to respond to your instruction as well as you would like to....
- Why not begin by assessing your own teaching style and your student's learning styles
- www.teachingstyles.com (teaching styles.quiz)
- www.learningstyles.com (learning style-test.html)





And at the end, it is suggested that:

- Educators design their instruction methods to connect with various learning styles
- Implement a variety of assessment techniques, focusing on the development of “whole brain” capacity and each of the different learning styles
- Give equal weight to creativity and synthesis
- Incorporate role playing, visuals, movement, reading, calculation and analytical activities

Education and Values



Thank You

“The sum of the patterns of how individuals develop habitual ways of responding to experience and distinguishes learning styles by considering holistic vs analytic learner”

By A. Hillard



www.themegallery.com