MULTIMODAL LEARNING: ENGAGING THE WHOLE BRAIN IN THE CLASSROOM

SESSION 4
FIRST LITERACY
APRIL 5, 2019
AGENDA

1. Review of Principles of Memory & Learning
2. Teacher share
3. Multimodal Learning
   a. Combine Modalities
   b. Varied Repetition
What do you see? What does it have to do with learning?
What Do You See?
Where Is the Learning Curve?

http://www.lincolnguitartuition.com/Guitar_Lessons_Lincoln_10.htm
“If you read a piece of text through twenty times, you will not learn it by heart so easily as if you read it ten times while attempting to recite it from time to time and consulting the text when your memory fails.”

~ Francis Bacon, 1620
1. Ask and answer your questions.
2. Trade questions.
3. Find a new partner.
Is there something you tried in your classroom that you would like to share with the group?

1. What did you do?
2. How did it go?
3. How will you tweak it next time?
BEFORE WE START . . .

Write down three learning points you have taught recently:

• For example:
  • paragraph writing
  • past tense verbs
  • interview skills
Multiple Modalities

Tommy Watson
MULTIMODAL LEARNING & MEMORY

1) Retrieval strength
2) Storage strength
Language learning is a whole brain experience.
LANGUAGE & THE BRAIN

Hearing Words

Seeing Words

Speaking Words

Thinking About Words
Combine Modalities

“Our senses are designed to work together, so when they are combined . . . the brain pays more attention and encodes the memory more robustly.”

Medina, Brain Rules, 2014
What are “the modalities”?
Colin Macleod tested recognition of words.

**Group A:** Read a word and say it aloud.

**Group B:** Read a word silently.
THE PRODUCTION EFFECT

“Saying a word aloud leads to better memory than does reading a word silently.”

~Colin MacLeod (2013)
READING + VOICE

Choral Reading

Cup Your Ear
“The human brain is a wonderful organ. It starts to work as soon as you are born and doesn't stop until you get up to deliver a speech.”

~ George Jessel
CLASSROOM PRACTICE: SILENT READ AND REPEAT

1. Teacher reads a line.
2. Students read a line mouthing the words but not voicing the words.
3. Then students read the line aloud.

It's not that I'm so smart, it's just that I stay with problems longer.

~ Albert Einstein
“Hear a piece of information, and 3 days later we will remember 10% of it. Add a picture, and we will remember 65%.”

~ John Medina, Brain Rules, 2014
HUMANS ARE VISUAL LEARNERS.

More than half the human brain is involved with processing visual information.

http://imgpics.gq/study-tips-for-the-visual-learner
What do you see going on in the picture?
What makes you say that?
What else do you see?
USE VISUALS

a. What visuals do you use in class?

b. How do you use visuals in the classroom?
TRUE OR FALSE?

1. There is one area of the brain that controls our language functions.

2. Speaking the words we read reduces our memory of what we read.

3. Our dominant sense is visual.
Learning requires varied practice.
A CASE IN POINT

What is more effective for learning?

a. Study in the same space every time.

b. Study in a many different environments.

“Forcing the brain to make multiple associations with the same material may, in effect, give that information more neural scaffolding.”

~Carey, NYT, 2010
VARY WITH EACH REPETITION

How?

With modalities!
THREE EXAMPLES
EXAMPLE ONE: MULTIMODAL SPELLING

- Meaning
- Sound
- Print
- Movement
- Visualization
- Handwriting
- Review
EXAMPLE TWO:
MULTIMODAL FEEDBACK

Pronunciation
VISUAL FEEDBACK ON CONSONANTS

Phone Mirrors: th(unvoiced), m, p, b, v, f

- The tongue with the unvoiced th.
  
  thanks

- The lips meet with m, p, and b.
  
  time  pat  ball

- The teeth on the lower lip with v and f.
  
  bet  vet  five  life
VISUAL FEEDBACK ON VOWELS

Open- Closed

Front – Back
PHYSICAL FEEDBACK ON CONSONANTS

**z, th, v, b, g, and d** (voiced sounds)

With their hands on throats, or ears plugged, students practice:

- **thank – there**
- **fan – van**
- **tock - dock**
- **bus – buzz**
- **back – bag**
- **lap - lab**
PHYSICAL FEEDBACK ON CONSONANTS

Paper Strips: p, ch, and initial t’s

- Students hold up thin strips of paper in front of their mouth as they practice the sounds.
- The paper should bend with the burst of air.

chop / shop

tin / thin

pin / bin
EXAMPLE THREE:
COLORS

1. Name colors in a book.
2. Name colors in the classroom.
3. Name colors in a painting.
4. Take a photo and name colors in the photo.
Louise’s Field by Jessica Miller
Use a checklist to remind you of possibilities.

Read through the checklist:

1. What have you done recently in class?
2. What do you want to try out soon?
1. Identify one learning point.
2. Think of three different ways to practice the learning point.
3. Use different modalities with each practice activity.
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a. What did you learn in this session?

b. What practice or idea do you want to take away?
KEEP IN TOUCH.

THANK YOU!