



Why Don't My Students Pay Attention?

Judy Willis
www.RADteach.com
www.ascd.org

Goals for This Presentation


Consider why you benefit from knowing the neuroscience of learning.

- Recognize Neuromyths
- What are neuro-logical brain research-compatible strategies to capture and sustain students' attention?

POLL QUESTION

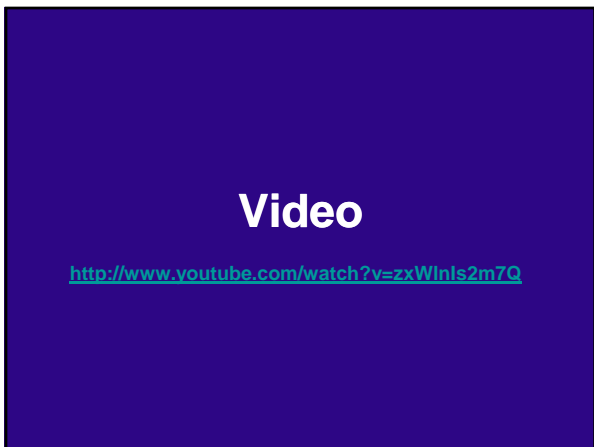
Respond in 20 seconds

Use 60 characters or less









If that video captured your attention, let's find out why.




Before anything can be learned and retained in memory, it needs to be attended to (selected) by the brain.

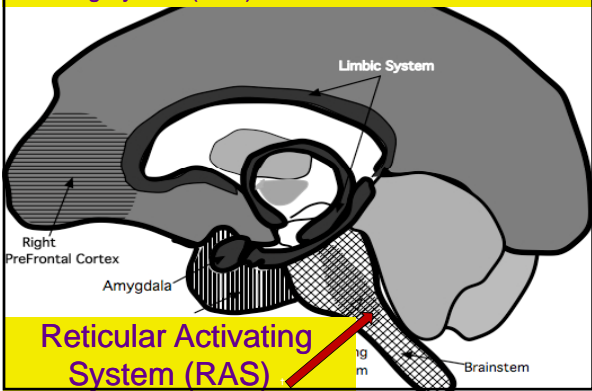
All learning comes through the senses.

Reticular Activating System (RAS)

- A primitive low brain structure.
- The same in humans as other mammals.
- Filters all incoming sensory input.
- Determines what enters the higher brain.
- Developed to select for survival value.



Sensory input must be "selected" by the Reticular Activating System (RAS) for students to attend to it.



Reticular Activating System (RAS)

Let's see what your RAS chooses to edit and let into your conscious brain.

Read the following
slide aloud:



Count the number of times
the letter "F" appears in the
following slide:

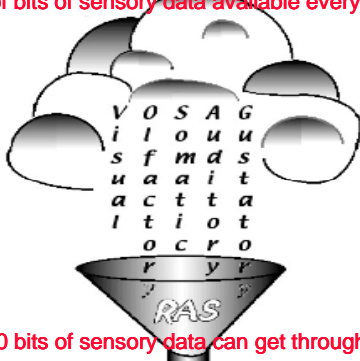
FINISHED FILES ARE THE
RESULT OF YEARS OF
SCIENTIFIC STUDY
COMBINED WITH THE
EXPERIENCE OF MANY
YEARS

Six times. Your RAS didn't
care about the "f"s in "of"

FINISHED **F**ILES ARE THE
RESULT **O**F YEARS **O**F
SCIENTI**F**IC STUDY
COMBINED WITH THE
EXPERIENCE **O**F MANY
YEARS

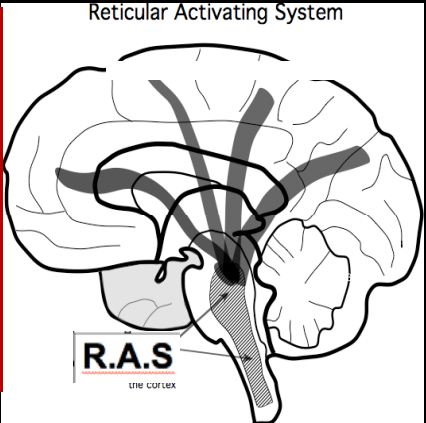
**Your RAS edited
which sensory
input got your
attention.**

Millions of bits of sensory data available every second



Only 2000 bits of sensory data can get through RAS

To get to
the
conscious
brain,
sensory
input must
be R.A.S.
"selected"



What is primary purpose of a brain?

Keep the body alive

Preserve the species

For Survival

What information would a sensory intake filter select?

Things that have changed, are novel

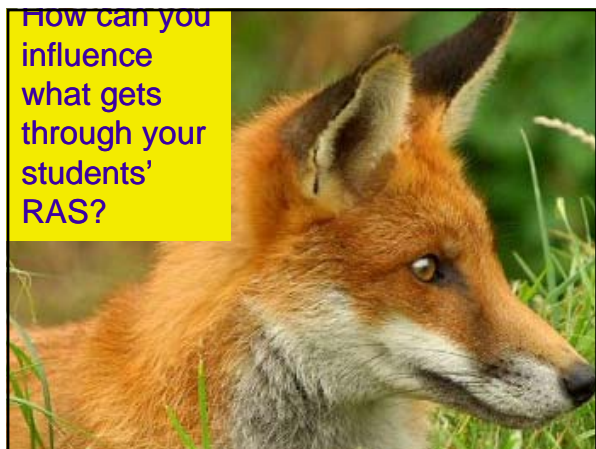
For Survival, What Would Get Priority?

First, is the novel input a danger?

If not, can it improve survival in the future?

When students are not paying attention to the lesson it doesn't mean they are **inattentive**.

They are paying attention to sensory input, **just not the sensory input of the lesson.**



RAS Interventions

Help students feel SAFE!

Then stimulate their curiosity with change & novelty

Novelty (Change)

- Alerts the brain to pay attention and sensory input to pass through the RAS filter.
- Examples of building novelty into learning new information:
 - Changes in voice or appearance (costume, hat).
 - Color, movement, music, and discrepant events.
 - Advertising.

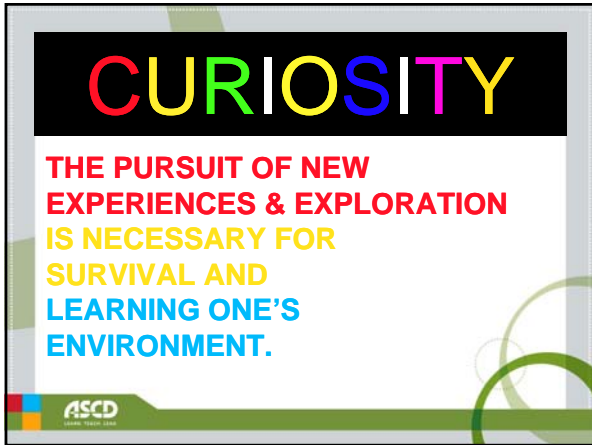
Strategies to Maintain Attention and Focus with Curiosity and Novelty

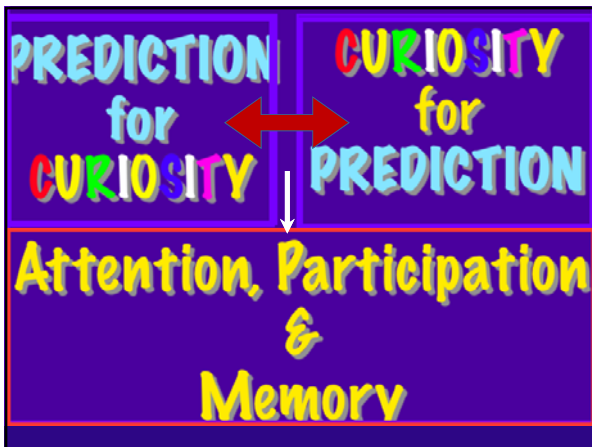
Novelty and surprise with curiosity promoting objects, music, costumes, and demonstrations.

Discrepant Events: Walk backward before a lesson in negative numbers.

Physical alterations in the classroom: Students are curious when they enter the room and see the unusual or unexpected on bulletin boards, hanging objects, or changes in seating arrangements.







To sustain interest in the curiosity-provoking experience or question, all students make predictions.

Prediction increases curiosity because the brain needs to know if the prediction was correct



Predictions are mental "bets" so students value finding out if their predictions are correct (attention).

That information is selected for RAS intake and subsequently for memory.

Prediction "bets"
can be private or
public.

Prediction Before and
Throughout the Class/Unit as
Clues Come Up

- KWL for the whole class
- Whiteboards for each student
- Prediction boards
- Journals
- Partner share

ADVERTISE
to promote

CURIOSITY
and
PREDICTION

**Advertise
for curiosity and
prediction with
videos.**

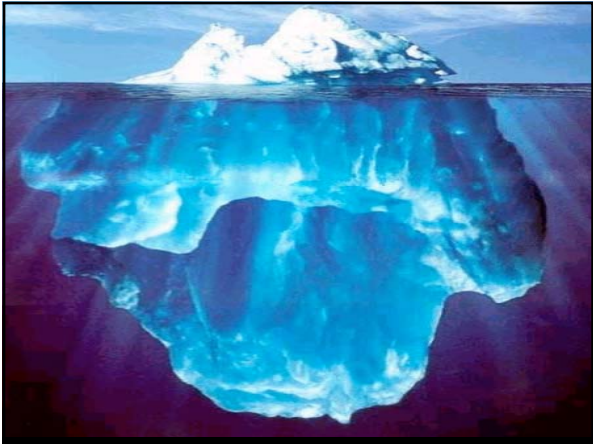
**Advertise
slope**



Video
<http://www.youtube.com/watch?v=qCbAjFUNTnQ>

Animoto.com for
Attention and Curiosity
Priming

Advertise with novel,
unusual, or cool
photos.



**PERSONALIZED AND
HUMOROUS
PREDICTIONS
ARE MORE MEMORABLE.**

**Because They WANT
to Learn**

**What You HAVE to
Teach**



**AS WE GO THROUGH THE UNIT,
MAKE PREDICTIONS ABOUT
WHAT YOUR RADISH HAS TO
DO WITH WHAT YOU LEARN.
MAKE PREDICTIONS ANY TIME AND CHANGE
THEM IF YOU'D LIKE.**

IN THE WESTWARD MOVEMENT, THE NATIVE AMERICANS WERE TREATED UNFAIRLY.

LIKE THE RADISHES, THEY WERE CALLED MEAN NAMES LIKE "RED SKINS."

TRIBES THAT NEEDED LARGE TERRITORIES TO HUNT WERE FORCED TO LIVE CLOSE TOGETHER, BUNCHED UP LIKE THE RADISHES.

TRIBES THAT FARMED NEEDED GOOD SOIL AND RAIN, BUT WERE GIVEN THE WORST LAND. THEIR HARVESTS MADE THEM BITTER LIKE RADISHES.

THE NEW WORLD PEOPLE KEPT THE BEST LAND FOR THEIR OWN FARMING AND GREW GREEN, LEAFY CROPS LIKE THE LEAVES NEXT TO THE RADISHES.

**Prime Their Connections
& Interest**

**Read a passage from the book
they will read that evokes
curiosity or interest.**

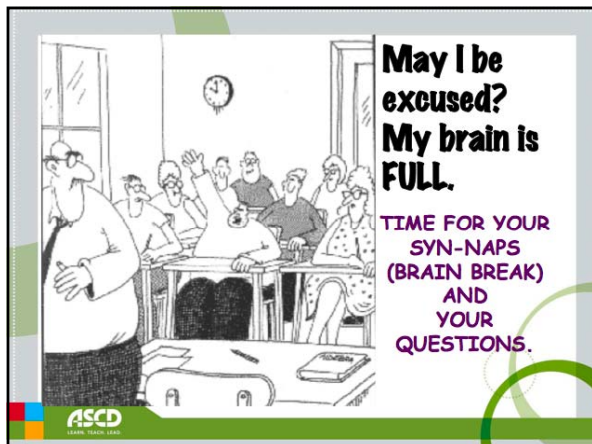
**Start with a current event that
connects with the topic.**

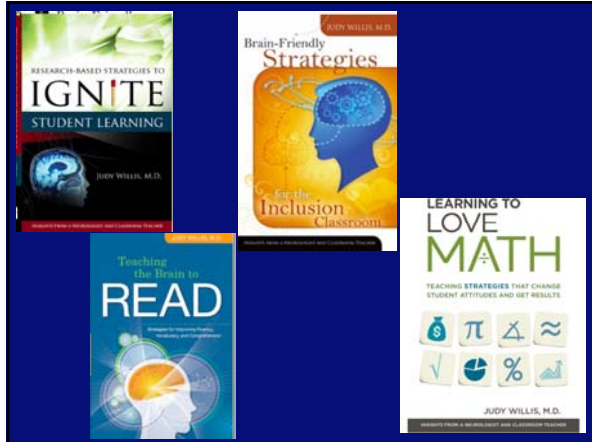
The “So, what?”

In planning your lessons, consider: “How can I help students value the information?”


Children See Value of the Information so they *want* to learn what they *need* to learn.







After the webinar: **Ask Dr. Judy**, Share Ideas, Brainstorm With Other Professional Educators on the **ASCD Edge Discussion Group: *How the Brain Learns***
<http://edge.ascd.org/How-the-Brain-Learns/group/110564/127586.html>
I'll look for questions or comments, especially those tagged in the title with **"Ask Dr Judy Question"** that I'll often respond to on the website and/or in an upcoming Webinar.



My Web site has access to articles I've written, book chapters, and to my e-mail.

www.RADTeach.com



**Thank you for joining
the webinar.**

**The next “Ask Dr. Judy” webinar
will be July 2010.**

How Can I Motivate My Students?

