

Rinaldo and Armida

Suki Kuss T-C '04,
sukikuss@hotmail.com



*After "Rinaldo and Armida"
by Sir Anthony van Dyck at
the Baltimore Museum of Art:
The Jacob Epstein Collection,
BMA 1951.103*



This sort of thing
is exactly why
it's a misery
to take a field trip
with twelve year olds.
No avoiding the golden frame
larger than a car
surrounding the fat naked
babies playing in the tree.
Rinaldo, the hero, sleeps,
his throat exposed
to the sorceress Armida.
Overwhelmed by his beauty
she drapes him with flowers.
Cupid in the clouds aims
his arrow. Embarrassed voices
around me giggle. One says, he's
wearing a skirt and sandals. Another
says she looks like a guy
wearing a dress and cape.
Their eyes avoid the bare-
breasted, opera-singing mermaid.
My twelve year old self blushes
at her pink fleshy flesh.
My 50 year old self blushes
that I once believed in a love
like this.

A Day Well Spent

By Sharon Delgado T-C '81, sdelgado@bcps.org



Make Learning Neuro-logical

She began with a caution. Teachers should be wary of those who flash colorful brain scans while proclaiming that the efficacy of their product or program is validated by neuroscience. Rather than trusting the claims of those who may have vested interests, teachers should instead begin their own journey toward understanding how the brain learns.

Last fall at the Maryland Writing Project's "Learning and the Brain Conference" many of us took our first steps in that direction under the guidance of keynote speaker Judy Willis, M.D., M.Ed. Dr. Willis, a board-certified neurologist, ASCD Distinguished Lecturer, National Writing Project Fellow, and middle school teacher is the internationally recognized author of six books and over thirty articles on topics related to brain-based education.

Combining her training as a neuroscientist and her experiences as a classroom teacher Dr. Willis recommends a teaching approach that is "neuro-logical." Neuro-logical strategies compliment and support the brain's natural learning systems.

The better we teachers understand how the brain learns, the better we can help our students turn raw information into useful knowledge and insecure skills into mastered abilities.

Dr. Willis told us that each moment our brains are bombarded by a million bits of sensory information. To cope with this barrage, our brains have evolved a series of filters that unconsciously distinguish between information that is useful or not useful to survival. The first of these filters, the Reticular Activating System or RAS, controls the brain's state of arousal. Because of the voluminous amount of stimulation any situation can present,

our RAS is most attentive to changes in the environment or novelty.

Our first goal as teachers, Dr. Willis pointed out, is to control the flow of information through our students' RAS, so that they are alert of the educational experience that we are providing. We can gain our students' attention in countless ways. Each time we enrich our lessons with novelty by using colorful materials, comics, jokes, video clips, costumes, puppets, songs, games, simulations, the list goes on, we are stimulating our students' RAS to pay attention to what we want to teach them.

When we repeat the "same ole, same ole," when we read from similar scripts day after day just the opposite can happen. The "teaching environment" becomes dull and our students will fail to take notice.

Dr. Willis has coined the term **RAD** to help us remember the filters information must pass through before reaching the higher cognitive areas of the brain. The **R** refers to the **Reticular Activating System** just described above. The **A** should remind us of the **Amygdala**. The amygdala is a part of the brain's emotional limbic system.

Teachers should be aware that when presented with threatening stimuli our brain's amygdala triggers "flight, fight, freeze" survival reactions. Students may experience these negative states of mind when they are threatened by bullying or social cliques, when they are expected to perform overly challenging tasks that are beyond their abilities, or even, Dr. Willis said, when they are asked to maintain continuous heightened interest in material that they have long mastered. When operating in this survival mode, the amygdala blocks entry of information into the brain's higher cognitive centers.

On the other hand if positive emotions can be stimulated in our students' brains, learning is enhanced. Students experiencing low risk, high interest activities are more likely to focus their attention on the educational task at hand and form long term memories of what is being taught.

The last letter in **RAD** stands for dopamine, a powerful neurotransmitter that is released during pleasing activities and produces a pleasurable state of mind. (Neurotransmitters carry information across the spaces or synapses between the brain cells called neurons.) A discharge of dopamine can also trigger the release of acetylcholine, a neurotransmitter that increases focus and facilitates learning and memory.

Pleasing activities often include opportunities for physical movement, social contact, humor, play, a feeling of achievement, intrinsic reward, and/or choice. Over time our brains learn and eventually anticipate that certain activities will trigger the pleasurable feeling of a dopamine release. Dr. Willis said neuroscientists often refer to this as the "dopamine reward and anticipation cycle."

Just as students learn to anticipate a feeling of pleasure with sports or video gaming, they could also form similar associations with academic endeavors if we teachers are able to incorporate some of the pleasing activities described above into the classroom experiences that we provide for our students.

Each day in every classroom teachers, the on-site experts, make multiple decisions about what kind of experience our students will have. If our decisions are informed by the best information that science can offer, our students will greatly benefit. Knowledge is power; and later in the day during the

closing Q&A session audience members said they felt empowered by the information presented by Dr. Willis and the other excellent speakers.

But Wait...There Was More

The roster of speakers at the MWP@TU fall "Learning & the Brain Conference" not only included Dr. Judy Willis, a brain-based learning authority from Santa Barbara, CA, but also featured some Maryland professionals widely regarded as leaders in their fields. During the afternoon sessions we were very fortunate that the following experts spoke on a variety of issues related to the brain.

Dr. Gloria Neubert, Ph.D., Professor of Secondary Education at Towson University and IRA Outstanding Teacher Educator in Reading, has authored four textbooks and has written over two dozen articles on literacy and teacher education. Dr. Neubert has written articles and presented widely on brain related topics at conferences held by groups such as the National Science Teachers Association, the National Council for the Social Studies, the National Council of Teachers of Mathematics, and the Association of Supervision and Curriculum Development. At our conference during her presentation, *Reading and the Brain: Finding the Holy Grail*, Dr. Neubert offered guidance to those of us trying to find our way among the various, and sometimes competing, theories that explain how the brain learns to read. Dr. Neubert presented information about both the neuroscience of reading and also practical application relevant to any classroom situation.

Dr. Thomas Baumgardner, Ph.D. is a Licensed Clinical Psychologist and Neuropsychologist. Dr. Baumgardner was appointed to the full time faculty at Kennedy-Krieger Institute and the

Johns Hopkins Medical School, has conducted NIMH-funded research in Developmental Learning Disabilities and Behavioral Genetics, and has written many articles and book chapters on brain-related topics. During his talk, *Risky Choices: Inside the Teenage Brain*, Dr. Baumgardner presented the neuroscience that "explains the often faulty process of teenage decision making."

Suzanne Henneman, M.A., is the Dance Resource Specialist for the Baltimore County Schools and a consultant to the Maryland State Department of Education. Mrs. Henneman has presented on the kinesiological applications of brain research at the state and national level. She is also a certified Brain Gym instructor. During her presentation, *Grey Matter in Motion*, Mrs. Henneman provided us with information on the Brain/Body connection and explained the relationship between exercise, movement, brain health, and neuron development.

Daniel Rozmiarek, M.A., adjunct faculty at Towson University, described how we can design our PowerPoints so that they are "*Brain Friendly Presentations*." During his talk Mr. Rozmiarek explained why speakers need to be aware of the brain's visual and auditory systems. If presenters make appropriate adjustments to their slide design, voice modulation, and pace their audience will be much more likely to remember what they are trying to communicate.

And There Will Be More in the Future...

Maryland Writing Project is pleased to announce a second "Learning & the Brain Conference"

To be held at Towson University on **October 10, 2009**.