When I was looking for a graduate course to take for recertification last summer, the title Brain-Based Teaching and Learning caught my eye. After chuckling to myself about where learning could be based other than the brain, I became intrigued. The course attempted to present current research findings in neuroscience in a practical way to benefit educators. It covered what imaging technologies like PET scans have revealed about how people learn and retain information, and it identified “brain-compatible” principles and techniques to guide teaching. Many of the techniques, such as multi-sensory activities, were already familiar to me, and some were new, but all of them seemed like effective techniques for ESOL.

The final project of the course was to develop a presentation, and I ended up presenting on this topic at the Fall MDTESOL Conference and again at a systemic professional development day for ESOL teachers in my district. Although many of the brain-based principles are not new to ESOL teachers, it is useful to know that they are supported by current brain research. Knowing this can empower ESOL teachers by strengthening the rationale for maintaining good ESOL teaching methods in the era of data, testing, and accountability.

Below is a list of principles I gleaned from the course, various books and articles, and from the forum How Students Learn: An Inside Look at Neuroscience which I attended in January at Towson.

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Brain-Based Teaching and Learning: Implications and Reflections
By Adreon Hubbard, Teacher Education and Professional Development Co-Chair

The author in a brain cap
Zombies love brains. Unfortunately, they only use them as an energy drink, but our students have their own uses for a brain.

In this issue of the newsletter, we have two articles about research into the issue of brain science and learning. Adreon Hubbard talks about the extended brain that walks, talks, and needs a glass of water. That’s right. What happens in the brain doesn’t stay in the brain.

Victoria Clausen and Misty Shapell write about the structure of the brain and its influence on learning, and they cover both the right and the left. Fair and balanced. And connected by the corpus collosus.

Jacqui Walpole writes about the brain and training your students to use it, although she never mentions the brain once. Learning is brain science, after all.

We also have some ideas for training your brain on the Web and in the classroom, as we all need exercise for our thought processes.

I suppose we’ll all walk away from this issue of the newsletter reminding ourselves, “No brain. No gain.”

Sarah “Brainstem” Barnhardt and Chester “Ganglia” Gates
Your Newsletter Editors
A Message from Your MDTESOL President
by Laura Hook

Exciting Maryland TESOL Events Ahead!

Can you believe that already one semester for the 2012-13 academic year has passed? I hope that your students, other educators, and you are finding much success throughout the school year. The Annual Fall Conference, Elevating Our Voices, at the Community College of Baltimore County, Essex Campus on Saturday, November 3rd was one success thanks to the efforts of the Maryland TESOL Board and everyone who assisted in hosting and making the event run smoothly.

Many exciting events are ahead this spring for Maryland TESOL! In early spring, the Maryland TESOL organization plans to launch our new and updated website at http://www.marylandtesol.org. The new website will serve as an improved method of communicating information, registering for events and awards, and participating in the organization, such as through the experience of the fall conference. The website will also provide the means for accessing and submitting proposals for the Maryland TESOL Conference that will take place in the fall of 2013. I hope you consider sharing your expertise through submitting a proposal! In addition, the organization will send a member, Elizabeth Wagenheim, to Senegal as a part of the partnership with the Association of Teachers of English for the first time this spring. Furthermore, the Interest Section Co-chairs are in the process of planning their spring events. For additional information, please look forward to receiving emails and use the website to find out more about the events sponsored by the Advocacy; Elementary, Secondary, Higher, and Adult Education; Teacher Education and Professional Development; and Graduate Studies Interest Sections. Another important spring event is the Annual Maryland TESOL dinner and meeting, which will be held prior to the start of summer. I hope to see you there for an evening of networking and collaboration.

The goals of Maryland TESOL are to disseminate information, strengthen instruction and research at all levels of English to speakers of other languages, provide leadership in professional concerns, promote scholarship, and cooperate in appropriate ways with other groups having similar concerns. If you have any suggestions for how we can further address meeting these goals or would like to become more involved in Maryland TESOL, please feel free to contact me at laurahook@yahoo.com to share your ideas.

Take care and best wishes!
Laura Hook

Are You Receiving emails from MD TESOL?

Have you been receiving emails from MDTESOL? If not, you may need to add marylandtesol@marylandtesol.org to your list of “safe senders” in your email account. That way you can stay informed about all the exciting Interest Section events, advocacy issues, and conferences that MDTESOL offers throughout the year.
Recently, I attended a seminar which addressed the needs of students with learning disabilities and right-brain thinkers. I reflected on the implications of the presenter’s, Lori Moore, M.Ed., research on English Language Learners. Moore presented the functions of the left hemisphere of the brain as: logical, language, analytical, grammar, punctuation, sequential, detail, letters/numbers, decoding, short term, (auditory) memory, thinks according to rules and patterns, fine motor, sense of time, planned, controls right side of the body. She described the functions of the right hemisphere of the brain as: creative, pictures, intuitive, tonality, illustrations, simultaneous, big picture, symbols/spatial, encoding, long term, (visual) memory, thinks outside of the square, gross motor, no sense of time, spontaneous, controls left side of the body. Connecting the two sides of the brain is a bundle of nerves called the corpus callosum. Everyone uses both sides of the brain, with information crossing back and forth via the corpus callosum.

Many people find that their thinking style suggests that they are using one hemisphere more than the other. As Howard Gardner’s theory of multiple intelligences suggests, being more strongly left- or right brained does not, in itself, indicate a higher or lower level of intelligence. Many right-brained thinkers may experience success in school. However, Moore states that 89% of students with learning issues strongly favor the right side of the brain and have more difficulty using the left side of the brain. Regardless of one’s personal thinking and learning style, in our culture, academics tends to be designed in a very left-brain way. Therefore, it goes without saying that those of our students who are creative, artistic, unique thinkers are coming to school with the cards stacked against them. Considering that our students are also struggling with a new language, the challenge is even greater. Additionally, if the right side of the brain controls long-term memory, shouldn’t we tap into it for all of our learners? If we appeal to the needs of our right-brained students, all of our students can experience more success.

As ESOL teachers (and classroom teachers) what are we doing, and what can we do more of, to teach these students? The atmosphere of the ESOL classroom for beginning ESOL students and perhaps through first grade, seems to do a good job of appealing to these students. It is visually appealing as the teachers uses colorful images to illustrate new vocabulary. Through TPR and role-play, students use their gross motor skills to practice newly conversational English. Music, which Moore explains is a perfect marriage of both sides of the brain, is often used to teach vocabulary and sentence patterns. Carolyn Graham, the author and composer of many Jazz Chants publications recognized this.

Despite all our love for the right side of the brain in beginning ESOL and the early primary grades, I find that as our students get older and/or reach the intermediate level of ESOL, perhaps in an effort to be rigorous and not to offend or embarrass our students with babyish pictures and songs, the ESOL teacher may begin to neglect the needs of right-brained learners. Once students attain a level of maturity and/or a level of English where they can use English dictionaries, verbal explanations, and context clues to understand new vocabulary, images can still be used for reinforcement and to appeal to the emotions. These images do not have to be childish. For example, they can come from magazines, newspapers, television clips from movies and the news, and pictures of famous pieces of art. Many teachers do utilize graphic organizers to teach writing. Moore says these are effective because they represent the way thoughts appear as images for right-brained learners. Visuals can also be used to develop and build on a student’s schema by representing.

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words within a context. For example, in a unit on marine life, pictures of the ocean help the students to make associations and appreciate the context of the vocabulary.

Music and rhythms can be used to teach new vocabulary and grammatical patterns. In addition to Carolyn Graham’s *Jazz Chants*, the chants of Dorothy Kauffman, Ph.D, in the *Oxford Picture Dictionary for the Content Areas* are an excellent source for this. Many popular songs are also appropriate for teaching vocabulary, grammar, and idioms. These can also provide rich examples of background knowledge. It is also important to continue to get our students up and moving, using their gross motor skills. Group work can involve a certain amount of movement, and idioms and complex vocabulary can be acted out. For example, students could demonstrate the many synonyms of walk (*prance, creep, tip-toe, stride*, etc.).

It is also important for us to provide our students with choices. For the right-brained thinker, the logical, simplest way of practicing language skills, may not work. Providing choices allows students to choose what works for them. Imagine a research project in which students might be involved in a class discussion about the many ways to represent one’s research. After being involved in this discussion, students might be allowed to choose a way to represent their research in a way that they find most motivating. The result, an array of diverse research projects, is more engaging for both the teacher and the students.

Universal Design for Learning, or UDL, is becoming a major influence, not just for EL’s, but for schools in general. The principals of UDL include: “1. Multiple Means of Representation 2. Provide Multiple Means of Expression and Action 3. Provide Multiple Means of Engagement.” The website [http://www.udlcenter.org](http://www.udlcenter.org) gives lots of helpful tips and guidelines for how to make your classroom more “universal” and open for all types of learners, including the left and right-brained and all of those in between. The goal of UDL is to eliminate the types of structures that make schools “left-brain” leaning and create an environment where all learners have access to content through the means that best suit them.

Presenting information in a more visual way, using rhythm and music, and offering students with choices in their learning helps teachers to reach more right-brained thinkers and to tap into the right hemisphere of the brain for all of our learners. As ESOL teachers, who have known about the value of using visuals, kinesthetic activities, and a variety of activities that recognize that language is a means of communication, and thus goes beyond the four walls of the classroom, I assert that we are in a good position to be at the forefront of this new vision of education.

**Bibliography and Resources**


University. The forum featured renowned neurosurgeon Dr. Ben Carson and Dr. Martha Denckla, director of the Developmental Cognitive Neurology Clinic at the Kennedy Krieger Institute.

**Principles of brain-based teaching and learning**

1. The brain needs:
   a. glucose and water
   b. safety (anxiety and stress interfere with learning)
   c. interaction with people and the environment
   d. choice and control of experiences

2. The brain is always trying to make meaning and find patterns. Mnemonics and chunking help with remembering unrelated information.

3. Cross-lateral movement gets both brain hemispheres working together.

4. Movement anchors thought and builds nerve cells and neural networks. Students should have opportunities to talk and move their bodies to facilitate learning and reduce stress.

5. Multisensory activities increase retention. The brain processes and stores information in multiple pathways or neural networks.

6. Repetition of information creates the synaptic pathways. While rote rehearsal helps with memorizing simple facts, elaborative rehearsal allows the learner to reprocess information by making connections and associations to establish sense and meaning.

7. Excitement at the time of learning enhances learning. Novelty and humor “wake up” the brain and get the learner’s attention.

8. Learners tend to remember best what comes first in the lesson, second best what comes last, and remember the middle of the lesson the least. Try to teach in “learning episodes” of about 20 minutes.


10. Neuroplasticity and neurogenesis continue throughout life.

**Implications for teaching**

*The brain needs water:* The water fountains in my elementary school were shut off years ago due to lead in the pipes, and water is supplied by large jugs stationed in the hallways. Students depend on teachers to provide cups in order to get the water. As a pull-out ESOL teacher with multiple classes, my students’ requests for water used to seem like one more demand threatening to eat up limited instructional time. Only when they finished their work, or when room temperatures were particularly high, would I allow time for water. Now, I try to honor these requests more regularly, hoping that my hydrated students will also soak up more learning.

*The brain needs a low-anxiety environment:* We are all familiar with Krashen’s *affective filter* and the need to make our classrooms nurturing. Dr. Denckla stated that anxiety and stress chemically interfere with learning to the point that it is like “unplugging the frontal lobes.” Sometimes, the pressure to get students to meet learning goals or finish assignments by a deadline can reduce my patience for off-task behavior. Knowing the research helps me keep things in perspective and keep the pressure on my students at a level that is facilitative rather than debilitative. When I have the urge to tell Pedro to hurry up and write, I will say to myself, “I will not unplug his frontal lobe.”

*Multisensory activities increase retention.* Most good ESOL teachers know this, but in an effort to prepare students for paper and pencil multiple choice tests, we may find ourselves neglecting multisensory experiences or wondering if lessons incorporating movement, songs, chants, and hands-on activities will be deemed not “rigorous” enough by those who evaluate us. If we want students to be engaged and retain the learning, however, we need to keep doing multisensory activities, which build multiple neural pathways in the brain.

*Cross-lateral movement gets both brain hemispheres working together.* In the past, there has been an emphasis on the differences between right-brain and left-brain learning styles. While the hemispheres do have specialized functions, current brain research suggests that the various parts of the brain work together in more ways than was previously thought. A dramatic example of this is the hemispherectomy which Dr. Ben Carson performed on a young girl named Jody Miller whose debilitating epilepsy necessitated such an invasive procedure. The girl regained the ability to walk and function normally due to the neuroplasticity of the brain: one hemisphere actually compensated for the loss of the other.

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Brain-Based Teaching and Learning: Implications and Reflections

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Physical movements that cross the body’s midline (sometimes called “Brain Gym” exercises) facilitate full brain function. An exercise that can be easily done in a classroom is called the “hook up” (You might want to use a different term if you teach above the elementary school level). I had my students do this activity during breaks in WIDA testing, and it seemed to help refresh their brain and relax them.

*How to do Hook Ups (seated or standing):*

- Put the left ankle over the right ankle.
- Extend arms and put the left wrist over the right wrist.
- Rotate the hands inwards and interlace the fingers.
- Bring the interlocked hands into the chest.
- Stay in this position for several minutes, breathing deeply.

*Increasing “wait-time” leads to more higher-order responses and increases participation of slower retrievers.* This is another principle that I know but often fail to implement consistently because it can seem to slow down the lesson.

*The frontal lobes regulate executive function. Children’s frontal lobes develop at different rates.* Dr. Denckla stated in her talk that some children who have difficulty with self control or who have ADHD have less brain tissue in the frontal lobes. Many students struggle with attention and focus, and this impacts their learning. However, there are strategies teachers can use to increase executive function skills in students.

*Neuroplasticity and neurogenesis continue throughout life.* I like this principle, as I will soon be eligible to join AARP. Our brains continue to form new neural pathways as we age, as long as we make the effort to keep our brains stimulated. A dramatic example: several years ago my brother, who is in his 50s, suffered severe head and brain injury in a catastrophic car accident. He was rushed to Shock Trauma and nearly died, then was in a coma, then came out of the coma but was not himself cognitively. During this time he continually stated his desire to recover so he could get back to work. Despite suffering major setbacks due to an allergy to the titanium with which they had rebuilt his skull, after several months he was walking and talking, and within a year he had returned to his full time job as a lawyer.

*Continuing the Learning*

The topic of brain-based teaching and learning is vast, complex, and will continue to evolve as brain research gradually reveals more of the mysteries of the three-pound universe that is our brain. Educators may not be able to become neuroscientists, but they can access this important information through courses, conferences, and websites. Learning & the Brain learningandthebrain.com is an organization that provides conferences and one-day professional development trainings. Locally, the Johns Hopkins School of Education has an organization called the Neuro-Education Initiative education.jhu.edu/research/nei/. They are sponsoring a summit at the Hopkins Homewood Campus on May 2, 2013, called *Executive Function: Research and Intervention for Children.* The conference will explore cognitive skills training, effortful control, and social-emotional development. Another resource for teachers and schools is Hopkins’s Making Neuroscience Fun mnf.jhu.edu/ outreach program, which gives talks to students on neuroscience.

Although brain-based teaching and learning is not focused on second language learning specifically, the research increasingly shows that learning involves many parts of the brain in complex ways. Gaining understanding of these processes can enrich our educational practice by making us better teachers and stronger advocates for effective instruction for our students.

References:
grew up in countries with an old-fashioned style of teaching and adopted it when we ourselves became teachers.

How many of us as ESL teachers know we’re talking for too long in the classroom, but we just can’t stop talking? You might not be teaching a speaking-listening class; perhaps it’s a reading class, or a writing class. It doesn’t seem to matter. Too often, I saw Adult Education ESL teachers talk for longer than they should have.

So my advice is to set a time limit for yourself when you’re presenting new material. We don’t need practice speaking English; we are fluent speakers, listeners, pronouncers, readers and writers of English. It’s our students who need the practice!

Teachers also do a lot of work in the classroom that could be turned over to their students. Why do teachers write so much on the board? I’ve seen teachers write vocabulary on the board that is right there in front of the students in their textbook. Instead, dictate the words to the students; better still, have a student dictate to another student. Find ways and invent activities to turn over teacher work to students. Ask yourself, “What can I give to students to do instead of doing it myself?”

Second, “Don’t tell it, do it.” When we want our students to engage in a practice activity, we want them to be successful. But when I see teachers set up the activity, they only explain it. Often, we’re working with students who don’t understand all or some of our explanations. So our students then resort to their native language to ask each other, “What does the teacher want me to do?”

Don’t tell students how to do a practice activity. Demonstrate it. Model it. Do it. Model it with another student. Show by doing what you expect of students. Then you will set up the practice activity to be successful, and it will be a good use of time. Your students will know what’s expected of them, and they’ll practice and be successful.

So many times, students don’t understand what has been explained to them, and once the teacher sees the practice activity breaking down because students don’t know what to do, then the teacher stops the activity and explains it all over again. Sometimes, the teacher has to go to every student to ask, “Do you understand?” This inserts the teacher into practice when the teacher should be monitoring and facilitating.

Don’t just tell students how to do it. Set up the practice activity to be successful, allow students to know and see what is expected of them, and then let the students practice successfully. Practice is not a test.

Third, recycle and repeat - less is more. Some teachers think that students get bored with repeating the same language over and over again. Some teachers load up students with lots of vocabulary because that’s what they think the students want. Other teachers actually do the pronunciation practice. I’ve seen teachers pronounce a word several times, ask students to listen or watch them, and then they give students only one or two opportunities to practice pronouncing the word.

Why not just take a few new words, a new point of grammar, a new structure – whatever is new in your presentation? Then have students spell it, dictate it, speak it, listen to it, read it, write it, recall it, explain it. Practice the new material using different skills with lots of different types of activities instead of introducing lots of new material with only a few activities.

So the winning formula for improving your ESL class is to limit teacher-talk time, increase student-talk time, turn over more teacher work to students, model all practice activities and recycle and repeat!
Nowadays, there are so many resources available to us as teachers. Here are five resources I have come across recently through either TESOL Connections or TESOL Interest Sections:

**SafeShare:**
http://www.safeshare.tv/

We’ve all used videos from YouTube. However, the extraneous information and comments can be distracting. SafeShare allows you to copy the URL for your YouTube video to SafeShare, and it creates a new URL so that only the video is seen (not the side videos and comments). The video comes up in a new tab.

**Excelsior College**
http://www.mydistancecourses.org/owl

Excelsior has developed an online writing lab and has a section specifically for ESOL students (ESL-WOW). The site has a multimedia tutorial on the writing process (getting ready to write, generating ideas, revising, editing and polishing). It also has a tutorial and quiz on plagiarism. Through a grant, the college has been able to make this site public.

**Film-English:**
http://film-english.com/2013/01/14/on-time/

Kieran Donaghy has created a website for using film in lessons. Each week features a new film clip (they are short) and a complete lesson plan that includes listening, reading, writing, speaking and grammar. The lesson plans run about 90 minutes. It’s a great resource if you are looking for something different and engaging but don’t have time to spend three hours creating a lesson.

**American English:**
http://americanenglish.state.gov/

This website is operated by the U.S. Office of English Language Programs. Although it was created to support EFL, the resources, learning objects and lesson plans can easily fit into an ESL program. The site offers materials for every age group.

**VOKI:**
http://www.voki.com/

Create speaking avatars to liven up online lessons. Students can also create their own avatars. Use of basic features of the application is free. For a small fee, you can upgrade to get more advanced features.
SEPARATING DIFFERENCE FROM DISABILITY WITH STUDENTS LEARNING ENGLISH AS AN ADDITIONAL LANGUAGE

This 4-week course addresses specific issues in assessment, intervention and identification strategies that are most effective in separating difference from disability. Participants will learn what tools and strategies are available and appropriate to use.

Instructor: Catherine Collier, Director of the national professional development project Curriculum Integration for Responsive, CrossCultural, Language-based Education (CIRCLE) at Western Washington University.

Course Dates: 29 April - 26 May

Questions can be sent to edprograms@tesol.org and put “Separating Difference” in the subject line. This course is online.

TESOL ACADEMY 2013: UNIVERSITY OF MARYLAND, BALTIMORE COUNTY

When? 21-22 June 2013
Where? University of Maryland, Baltimore County, Baltimore, Maryland, USA
Email: edprograms@tesol.org

Why Should I Attend?
The TESOL Academy 2013 supports your professional development needs:
- Spend 10 dynamic hours in one area of concentrated study with a top leader in the field.
- Network and share your work with colleagues from around the US.
- Gain practical insights on how to implement the latest classroom practices.
- Reflect on your teaching and learning.
- Earn continuing education credits that advance your career.
- Build valuable professional and personal relationships that will last a lifetime.

Schedule-at-a-Glance

Friday, 21 June
12:00 pm–1:00 pm Check-In
1:00 pm–5:00 pm Workshops in Session

Saturday, 22 June
9:00 am–12:00 pm Workshops in Session
12:00 pm–1:30 pm Lunch (on your own)
1:30 pm–4:30 pm Workshops in Session

Registration Information

Fees: Registration fees include materials, refreshments, and a Certificate of Attendance.

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To learn more about TESOL Academy in Baltimore, please contact TESOL Education Programs.

American University Summer Institute

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MULTILITERACIES AND MULTIMODAL COMMUNICATION IN ESL/EFL INSTRUCTION

ABOUT THE WORKSHOP
This three-day intensive workshop covers theoretical aspects of multiliteracies, TESOL teaching methods that include multiliteracies and multimodal communication, and discusses the benefits and challenges of this approach in ESL/EFL instruction. After the workshop concludes, participants taking the 3-credit option will complete a final multimodal project while having additional meetings with an instructor of record in class, individually, and online.

- Instructional component (all credit options):
  - Friday-Sunday, July 12-14, 9am - 5pm

- Follow-up component (3-credit option only):
  - In-class meetings: Friday, July 19 and Friday, August 16, 5:30 - 8:15pm
  - Independent work and individual meetings: July 20 - August 15

THE CENTER FOR APPLIED LINGUISTICS
Professional Development Opportunities in Washington, DC
CAL is continuing to expand its successful series of professional development institutes focusing on key issues for educators. CAL Institutes provide research-based strategies and practical, hands-on tools to help you develop effective classroom activities, including meeting the demands of the Common Core State Standards. We invite you to visit our website to learn more about each institute and register.

May 20-21, 2013  Spanish Literacy Institute
June 3-5, 2013  What’s Different About Teaching Reading to Students Learning English? Training of Trainers
June 24-26, 2013  Hot Topics in ELL Education
June 27-28, 2013  Multiculturalism in the Classroom
July 8-11, 2013  SIOP Training of Trainers
July 12, 2013  Research-Based Vocabulary Instruction for English Learners: Grades K-12
August 6-8, 2013  What’s Different About Teaching Reading to Students Learning English? Direct Strategies

Visit our website to learn more and register.
Photo Highlights From MDTESOL Fall Conference 2012