

George Mason University
Graduate School of Education
**EDUC 797: Seminar in Brain-Based Teaching and Learning – Research,
Practices, and Realities**

Summer, 2006: Tuesday/Thursday, 7:20 p.m.

Professor: Dr. Marjorie Hall Haley, A-315 Robinson Hall, Email: mhaley@gmu.edu
Phone: 703-993-8710
Center for Language and Culture
Office hours: Before class or by appointment

COURSE DESCRIPTION: This course will examine learning styles theories and their impact on today's classrooms comprised of culturally, linguistically, and cognitively diverse learners. One objective of the course will be to situate current pedagogy and its efficacy at reaching all learners. Interdisciplinary topics will include: literacy, instructional technology, educational leadership, and special needs learners. The changing demographics will continue to have a profound impact on teaching and learning. While some may regard this as a challenge, clearly it can and should be seen as an opportunity.

REQUIRED TEXTBOOKS:

- (1) Sousa, David A. (2001). How the brain learns. Corwin Press. 2nd edition.
- (2) Sprenger, Marilee. (2003). Differentiation through learning styles and memory
Corwin Press.
- (3) Gregory, Gayle H. (2005). Differentiating instruction with style. Corwin Press.

RECOMMENDED TEXTBOOK:

- (1) Teele, Sue. (2000). Rainbows of intelligence. Corwin Press.

RELEVANT WEBSITES:

<http://www.brains.org/>
<http://members.aol.com/Rss51540/brain2.htm>
<http://eduscapes.com/tap/topic70.ht>
<http://www.atozteacherstuff.com/pages/1814.shtml>
http://www.itdl.org/Journal/Sep_05/article03.htm
http://www.funderstanding.com/brain_based_learning.cfm
www.thebrainstore.com
<http://www.designshare.comm/Research/BrainBasedLearn98.htm>
http://www.loloville.com/brain_based_learning.htm
<http://www.brainconnection.com/>

CEHD COURSE EXPECTATIONS:

The College of Education and Human Development (CEHD) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See <http://gse.gmu.edu> for a listing of these dispositions.

Students must follow the guidelines for the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC_H12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See <http://mail.gmu.edu> and click on Responsible Use of Computing at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.

Attendance is mandatory, as the discussions that take place in this class are essential to achieving course objectives.

Each student is expected to complete all the assigned readings and participate in the discussions. It is expected that each student will be attuned to group dynamics in order to ensure the active participation of all in the class.

If you must miss a class, you are responsible for notifying me (preferably in advance) and for completing any assignments, readings, etc. before the start of the next class.

All assignments must be completed in MS Word. Late assignments will not be accepted without making prior arrangements with me.

COURSE DELIVERY:

This course is situated around “learning by discovery and learning via conversation.” In addition to classroom attendance and participation, students are expected to complete readings, whole class and small group discussions, group, pair, and individual projects, internet research, analyses of case studies, and reflections on teaching and learning.

COURSE REQUIREMENTS:

1. Readings, Attendance and Tasks: Prepare thoroughly for class discussion **25 points**
2. Lead an interactive discussion on topic of choice and lead readings’ discussion for class **30 points**
3. Final Project **45 points**

COURSE OBJECTIVES: Students completing EDUC 797 will be able to:

1. Examine brain-based teaching and learning research, practices, and realities
2. Explore multiple intelligences and learning styles theories and their impact on today's classrooms
3. Situate current pedagogy and its efficacy on reaching all learners

COURSE SCHEDULE:

June 13: Introduction to course.

Orientation and discussion on brain-based teaching and learning.
Review syllabus. Sign up for leading readings' discussion.

Readings for next class:

Brain-based approaches to working with Culturally, Linguistically, and Cognitively Diverse Learners

Haley, M.H. (2004, January). Learner-centered instruction and the theory of multiple intelligences with second language learners. *Teachers College Record*, Vol. 106, No. 1, pp. 163-180.

Haley, M.H. (2001/July, August). Understanding learner-centered instruction from the perspective of multiple intelligences. *Foreign Language Annals*, 34(4), pp. 355-367.

Haley, M.H. (2000, November/December). Refocusing The Lens: A Closer Look at Culturally and Linguistically Diverse Exceptional Students. *ESL Magazine*, 3(6), pp. 14-16.

June 15: Howard Gardner's Theory of Multiple Intelligences

Task # 1 – Divide a piece of paper into two columns. Think about where you work and on the left side make a list of specific curricula, assessment or programs that have been implemented, e.g., new textbook series, a technology program, assessment practices, a professional development initiative, etc. On the right side, generate as many questions and/or comments as you can about the accommodation of multiple learning styles and/or intelligences.

Readings for Next Class:

Sousa – Chapters 1 & 2. Answer questions on pp. 33, 56, 58-60

Sprenger – Chapter 1

Gregory – Chapter 1

June 20 & June 22: Virtual Class – work on readings and assignments

June 27 and 29: The Brain: Development, Information Processes, Learning

Task # 2 – From the list generated for Task # 1, identify a program, curriculum, or assessment that interests you. Now imagine that you are responsible for ensuring multiple paths to teaching or learning for all constituents. Speak with those who utilize (or other relevant stakeholders) these items and determine what they might want to know about making modifications to reaching a wider array of learners.

Readings for next class

Sousa – Chapters 3 & 4. Answer questions on pp. 152-162

Sprenger – Chapter 3

Gregory – Chapter 2

July 6: Memory, Transfer, Learning Styles

Task # 3 -- Students are to write a 1-2 page rationale on the selection of your topic for your final project. Reflect on why this topic is relevant and in what way it will support the existing corpus of literature and/or your own current educational circumstance.

Readings for next class

Sousa – Chapters 5 & 6. Answer all questions/exercises.

Sprenger – Chapter 2

Gregory – Chapter 4

July 11 and 13: Virtual Class – work on readings and assignments

July 18: The Brain and Learning: Hemispheres

Readings for next class

Sousa – Chapters 7 & 8

Sprenger – Chapter 7

Gregory – Chapter 5

July 25: Last Class

Putting it all together: Brain-based Teaching and Learning

Presentation of Final Projects

GUIDELINES

Interactive Discussion on Readings

1. Each student will sign up to lead the in-class discussion on one set of readings listed in the course syllabus. You must further research the topic and locate no fewer than 2 articles, book chapters, or monographs, etc. on the topic. These must be distributed to the class and professor no later than one week prior to your presentation. This may be done in hard copy, electronic link, or placed on e-reserve through the GMU libraries. For your presentation you are encouraged to use visual aids, such PowerPoint, video, slides, or photos. Be sure to prepare a handout as a reference or guide. Make one copy for each member of the class and professor. You will lead the discussion by preparing an interactive activity to illustrate some of the concepts.

2. It is expected that students will have read the articles and grappled with the concepts before each presentation. Your handout may include additional resources (“must reads”) or a summary of the most salient features.

Final Project – Due Last Class

Build A Project

(A) What are some of the most critical aspects of brain-based teaching and learning that apply to today’s educational setting. Integrate these elements into a project.

(B) Sample topics might include:

- Creating culturally responsive schools
- Closing the achievement gap
- Understanding racial disparity in school discipline practices
- Differentiation of instruction as a means for reaching all learners

The final project will be a synthesis on a chosen topic that may be considered a precursor to your dissertation research or review of literature. You should review and critique no fewer than four studies that highlight this area of the field. You should also include your ideas about the future directions of research on the topic.

Annotated Bibliography: Submit a list of the articles you’ve found in journals or book chapters on the chosen topic with a one-paragraph justification of why you chose the articles.

Your final project may take the form of:

1. An article being prepared for publication
2. An action research study
3. The beginning of a literature review for the dissertation
4. A presentation prepared for a state, regional, or national conference
5. A critical analysis of a particular topic with a dialogic perspective
6. Case study
7. Other options

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Interactive Discussion on Readings

| 30 Points Total | Met the Standard | Did Not Meet the Standard | Exceeded the Standard | Comments and/or Points |
|--------------------------------------------------------------------|-------------------------|----------------------------------|------------------------------|-------------------------------|
| Lead in-class discussion | | | | |
| Locate no fewer than 2 articles, book chapters, or monographs | | | | |
| Use visual aids such as PowerPoint, video, slides, or photos | | | | |
| Prepare a handout as a reference or guide | | | | |
| Prepare an interactive activity to illustrate some of the concepts | | | | |
| Total Number of Points | | | | |

EDUC 797 – Brain-based Teaching and Learning

Video – *Instructional Strategies for the Differentiated Classroom*

1. Robert Sternberg's theory posits that there are three additional intelligences:
 - a.
 - b.
 - c.

2. When teachers create intelligence-preference planning, what are some of the basic steps? What questions should be considered?

3. In an intelligence-preference classroom, how/in what way(s) does the teacher re-cast her/his role?

4. There are three ways to determine intelligence-preference:
 - a.
 - b.
 - c.

5. Why are closure activities important?

EDUC 797 – Brain-based Teaching and Learning
Video – Inquiry-Based Learning, “Learning Styles”

1. What are the modalities of learning?
2. Describe the impact of Learning By Doing.
3. How and why does inquiry-based learning “fit” so well with Differentiated Instruction?
4. In your opinion, why is learning about learning styles so important?