

The Transformer:

Education through Transformation!

A Newsletter for Students by Students of The Graduate School of Education, University of Massachusetts, Lowell Spring 2005

Message from the Dean

The beginning of spring semester is an opportune time to assess mid-year progress and adjust personal goals and plans for the coming months. As we make these adjustments, it is important to keep in mind the context of institutional goals for preparing all students and ourselves to be more competent and more caring human beings. Whether your primary role in education involves teaching, research, service, administration, or some combination of these, I applaud your commitment to continued professional development.

As you work to complete assignments and fulfill responsibilities this semester, it might be helpful to keep in mind Thomas Edison's frequently cited words (Harper's Weekly, 1903): "Genius is one percent inspiration and ninety-nine percent perspiration". In the meantime, I resolve to update my repertoire of quotes to include the most recent past century. Best wishes for a safe, healthy and productive spring.

Don Pierson

Change to Doctoral Handbook

Doctoral students nearing their proposal hearing should note that "Dissertation PROPOSAL hearings are only open to the dissertation committee, Graduate School of Education full-time faculty, visiting faculty, adjunct faculty, directors, Dean, and doctoral students of the Graduate School of Education, except with the express permission of the dissertation committee. The final defense will be open to all, including guests of the student (Rev. Nov. 4, 2004)".

Transformer Newsletter Project Published

It was 3 years ago when The Transformer newsletter project began with a group of students who were taking a Leadership in Higher Education course with Dr. Jacqueline Moloney. Since this project has evolved over the years and has been a rewarding and positive service learning project we wanted to share the experience with others. After much patience and perseverance in trying to get a description of the project published (we were turned down by three publications before getting published), we finally succeeded.

In November 2004, our article was published in *Academic Leader*, a publication for Academic Deans and Department Chairs. The title of the article is "Transforming Graduate Students into Leaders Through Service Learning" and it was written by Jacqueline Moloney, Steven Dion, Charmaine Hickey and Carolyn Siccama. The UML library subscribes to *Academic Leader*. Anyone interested in reading the article, can find it online, full text in the UML online databases.

Grad School Newsletter

The Graduate School (not to be confused with the Graduate School of Education) has its own newsletter. Go to http://www.uml.edu/grad/more_info/new.htm for an academic calendar, news and information from the graduate school.

eStudent – Access your Grades and Schedules online!

Don't forget that you can access your UML personal records and information through eStudent! One way to access this function is to go to the UML homepage at <http://www.uml.edu/>, scroll to "For Current Students" in the left column, and select "eStudent" from the drop-down box. Once at the eStudent main page, input your USERID (usually your social security number) and your PIN (usually the last four digits of your social security number) and your student category. Follow the on-screen instructions to get your grades, print your schedule, change your address, or perform add/drops.

New Doctoral Program Guidelines

As Faculty Chairperson, Dr. Anita Greenwood has written and received GSOE approval for the "Graduate School of Education Spring 2004 Doctoral Program Guidelines and Forms". This is a wonderful guideline and checklist, complete with a "Frequently Asked Questions" section, that helps doctoral students in any area (Language Arts and Literacy; Mathematics and Science Education; Leadership in Schooling) navigate through the administrative aspects of the Doctoral Program at UML.

The publication, available in the GSOE office includes forms that should be signed and added to every doctoral student's folder. Institutional Review Board (IRB) requirements, Proposal Requirements, Defense Requirements, Dissertation Printing Requirements, and Graduation Clearance Forms are examples of what is included. Pick up a copy!!!!

Graduate Student Organization (GSO) News

Bookstore Grant received: For the second consecutive year, the GSO applied for and received a grant from the UML bookstore. This year, the bookstore funds allowed us to purchase a new table throw for the Graduate School of Education and provided funds to help support the 2004 Biggy Lecture.

GSO Elections: In April 2005, GSO officer elections will take place. There are at least three officer positions that will be open (President, Vice President and Senator). If anyone is interested in running for office for the GSO, please contact Carolyn Siccama at csiccama@rcn.com. The GSO is a great way to get involved in the activities of the Graduate School of Education. Any matriculated graduate student at the Master's or Doctoral level is qualified to run for an elected position with the GSO.

GSE Student to Present at NEERO Conference

Stuart Robertson will be presenting a Research Roundtable at this Spring's New England Educational Research Organization (NEERO) conference in Northampton, MA. The 37th Annual NEERO Conference will take place on April 27-29, 2005. Stuart will lead a discussion about his research entitled: *The Experience of Charter School Founders During the Formative Stage: A Case Study*. Stuart will also receive a professional development award from the Graduate Student Organization for attending and presenting at this conference. For those who are interested in the conference, it's not too late to register. Go to NEERO's web page at <http://www.neero.org>

SAVE THE DATE: GSE SPRING CELEBRATION MAY 12, 2005

Please mark your calendars for an opportunity to celebrate the close of the Spring 2005 semester with your course colleagues, family, alumni, new students, and scholarship recipients.

What?	The Graduate School of Education Spring Celebration
When?	Thursday, May 12, 2005
Where?	UML South Campus
What time?	Beginning at 6:00 p.m. (and continuing after class)
Who will be there?	You!, alumni, faculty, scholarship donors, scholarship recipients, award winners, UML administrators, Graduate Student Organization. Feel free to bring your families.
What will happen?	You will be treated to a light supper, good conversation, and celebration
What do I do next?	Look for more on-campus announcements to follow, and reserve your space through the Office at the Graduate School of Education!

Are you Graduating in Spring or Summer 2005???

Remember, you must request a Graduation Clearance Form from The Graduate School. Allow at least two weeks from the time you mail your request, to receive the form. Requests for Graduation Clearance Forms may be directed to The Graduate School, 883 Broadway Street, Lowell, MA 01854-5130. Alternatively, you may also pick up a request at

the main office in the Graduate School of Education in O'Leary.

The Graduation Clearance Form must be **completed** (leave time to gather required signatures) and be received by The Graduate School (not the Graduate School of Education) by the following dates:

For Spring Graduates: April 22, 2005

For Summer Graduates: September 22, 2005

The UML 2005 commencement ceremony will be held at the Tsongas Arena beginning at 10:00 a.m. on June 5th, 2005. Congratulations to all Graduate School of Education students who are graduating!

Call for papers for 2006 Annual Colloquium

Graduate students are invited to submit papers that will be presented at the **XI (2006) Annual Colloquium on Research in Mathematics and Science Education** and published in the **Colloquium Journal, vol. XI**. The papers must discuss issues and trends related to Mathematics and Science Education. Leadership and Schooling Program graduate students are encouraged to submit their papers as well. Papers must be received by **November 30, 2005**

Submit papers and correspondence to:

Dr. Regina M. Panasuk,
Phone: (978) 934-4616, Fax (978) 934-3005,
Regina_Panasuk@uml.edu

Copies of the Colloquium Journal are available upon request.

TENTH ANNUAL COLLOQUIUM on Research in Mathematics and Science Education

Thursday, April 7, 2005

South Campus, O'Leary Library, Conference Room 222 (second floor)

You are cordially invited to participate at the **Tenth Annual Colloquium** hosted by the Graduate School of Education, University of Massachusetts Lowell.

The Colloquium will be held at the South Campus, O'Leary Library, Conference Room, 222.

The keynote speaker, Dr. William Leonard, nuclear physicist, is a member of the UMASS Amherst Physics Education Research group. His presentation, ***Misunderstandings, Deliberate Deceptions, and Unacceptable Truths: A context for understanding communication and assessment in the science classroom***, will focus on how using outside classroom experiences motivate and characterize many features of in-class dynamics in terms of human ways of knowing and communicating. He will present research results relevant to the discussion of science instruction, as well as share his own experiences in Pre K–12 schools outreach and writing curriculum materials for high school physics.

CONCURRENT SESSIONS

1. Low-income, ethnic and racial minority parents' attitudes toward school vouchers
Dr. Emile V. Tabea
2. Issues related to homework and achievement in community college remedial mathematics classes
Marsha Pease, North Shore Community College
3. Empirical evidence of factors in the systematic lesson planning of mathematics teachers in low-performing urban middle schools
Jeffrey Todd, Lowell Middle School

Please respond by March 15, 2005

To Register:

E-mail to: Regina_Panasuk@uml.edu or

Call: 978.934.4616 or 978.934.4601 or

Fax: 978.934.3005

Student e-mail Accounts

Did you know that as a registered student at UMASS Lowell, you can activate a student e-mail account?

For those of you who already have a student e-mail account, you will note that there is a new and enhanced e-mail system beginning this semester. To access the new system and any e-mails that have been sent or those converted from the old system, go to <https://webmail.student.uml.edu> According to the Student Affairs Newsletter, your login account name will be `firstname_lastname` and

your password will be `Firstname+last4digits` of your SSN (i.e. James1234). Once you have logged in for the first time, you will be prompted to change it. The official e-mail address for UML students will remain `firstname_lastname@student.uml.edu`

Outlook Web Access (OWA), the new student e-mail platform, has lots of new features and is more secure than the previous student e-mail system.

Qualitative Research Network

The next meeting of the UML Qualitative Research Network is scheduled for Monday March 7th from noon to 1:30 pm in 410 McGauvran (South Campus). Lunch will be provided, please RSVP to Dora Tovar, Dora_Tovar@student.uml.edu

Graduate School of Education Doctoral candidate, **Roger Luce**, will be making a presentation on *The Use of NVivo as a Tool for Qualitative Analysis*. Below is an abstract of his presentation.

This paper describes some methodological issues and practical implications of the use of NVivo in qualitative research. The presenter will discuss his use of NVivo in conducting a case study of educational partnership, based on a variety of data types. Data were developed from semi-structured interviews conducted with a purposeful sample of key participants, documents and records obtained from the case members, and visual data produced by the interview partners. Issues examined include: a heuristic approach to coding; thematic analysis and conceptual synthesis; NVivo as a tool for analysis, modeling, and synthesis; and some limitations of the computer as a data analysis tool.

Financial Resource Opportunities for Students!

There are scholarships, grants and funds available for GSE students.

Modest scholarships are awarded through the generosity of donors for incoming students as well as current students. If you are interested in applying for scholarships, which are awarded each year at the GSE Spring Celebration (formerly Awards Day), please send a letter of interest to the Dean's office to apply.

The (university-wide) Graduate Student Association offers Professional Development Awards and Graduate Research Grants for deserving students. For more information, see their web page at <http://www.uml.edu/gsa/>

Each year, the Independent University Alumni Association at Lowell (IUAAL) offers the opportunity to all students who wish to apply for a financial-need and academic-based scholarship. In fact, The Transformer made a special announcement last fall about the application process and paper applications were placed near the student mailboxes. Congratulations to **Rocco J. Perla**, who was awarded a New England Textile Fund Scholarship, and to **Matthew Beyranevand**, **Shawn Landry**, **Lucia M. Lagoy** and **Charmaine Hickey**, who were awarded an Elmer C. Matthews Memorial Scholarship this spring. For more information about applying for a scholarship next year, please monitor IUAAL's web page at <http://www.iaaal.org/index.html>

Comprehensive Exam 2004-2005 Schedule

Friday, February 4, 2005 – Friday, February 11, 2005
Friday, July 8, 2005 – Friday, July 15, 2005

Please remember that you must submit your petition to take the exam (with advisor approval) at least 15 working days in advance of the test date. Forms on which to submit the request are available in the Graduate School of Education Office.

Students in Language Arts and Literacy and Leadership in Schooling may request to receive and submit their exam packets electronically, or they may pick up their exam packets from the Graduate School of Education Office and return their packets one week later, on the following Friday.

Students in the Mathematics and Science Education Program should arrange the date and time of their exam during one of the weeks listed above in consultation with their faculty advisor. The first comprehensive exam for Mathematics and Science is a four-hour exam to be taken on the fifth floor of O'Leary Library.

Spring 2005 Student ID Schedule

The following is the Student ID schedule between Tuesday, January 25, 2005 through Thursday May 12, 2005 at Southwick Hall, UML North as published by the Office of Student Services:

Monday 9:30am-12:00pm and 12:30pm to 7:30pm
Tuesday 9:00am-11:00am and 5:00pm to 7:30pm
Wednesday 9:30am-12:00pm and 12:30pm to 7:30pm
Thursday 9:00am-11:00am and 5:00pm to 7:30pm
Friday 10:30am-4:00pm

Who's Who at the Graduate School of Education An Interview with Anita Greenwood

This issue spotlights Dr. Anita Greenwood, a professor in the Graduate School of Education and Faculty Chair of Education.

Dr. Greenwood was born in the south of England and went to the University of Birmingham (UK), a large and successful research university in the midlands. She studied Biological Sciences, specializing in comparative zoology and physiology. Upon graduation she decided to become a science teacher, and enrolled in a one-year post Graduate Certificate of Education. She spent her first three years working in a girls' private school teaching grades 6-12. She then moved to a large comprehensive public school and became the head of the biology department.

Although she loved her teaching job, her husband was transferred to USA where they ended up in Littleton, Massachusetts. Once in the states, she became a graduate student and teaching assistant at the then University of Lowell. Interestingly, we believe she was the first person to graduate from the Mathematics and Science Education doctoral program at UMass Lowell (1992). In September 1992, she was appointed as an Assistant Professor UML and became a full professor in 2004.

She thoroughly enjoys working with her colleagues in addition to continually examining the programs and meeting the needs of the graduate students. She teaches courses in both the M.Ed. Initial Licensure Program (Curriculum and Teaching: Science Methods; Science for Science Teachers; Practicum) and in the Ed.D. Program (Perspectives and Visions II; Development of Concepts in Science; and Constructivism).

With regard to her own academic and professional pursuits, for several years she has been interested in examining how individuals who have had previous careers, transition into teaching. To this end, she has an NSF funded program called Project ExCEL that provides scholarships for individuals who wish to become math and science teachers in high need school districts.

Her other interest is in online science teaching. She was awarded a collaborative NSF funded grant with colleagues at UMass Amherst to deliver a fully on-line science M.Ed. program for elementary and middle school teachers. The program is in its second year and is due to be made available to a national audience in 2006.

In the following section, we take a more personal look at our faculty as they answer a few "favorites" questions:

Dr. Greenwood's Favorites:

Food: She is a vegetarian and LOVES vegetarian Indian dishes, like Aloo Gobi Masala (cauliflower and potato in a spicy sauce)

Ice Cream: She's not a big fan of ice cream, but Ben and Jerry's Phish Food is pretty good.

Color: Red

Book: Jane Austen's Pride and Prejudice - I read it every year

TV Show: THE WEST WING, THE SOPRANOS & the British comedy called LITTLE BRITAIN

Movie: Pride and Prejudice (6 hours long)

Outdoor Activity: yard work

Sport: Squash

Hobby: Playing the piano (playing since age 5)

Quote: "Do not dwell in the past, do not dream of the future, concentrate the mind on the present moment".

Most treasured accomplishment: being the mother of a lovely seventeen-year-old daughter.

We would like to take this opportunity to thank Dr. Greenwood again for inviting us into her world and sharing part of her story with us. We appreciate and commend her dedication and look forward to hearing more about her personal and professional pursuits.

GSOE Student Contributions from the Field: Sharyn Gallagher

Left-Brained versus Right-Brained: Which is Better for Learning?

Sharyn Hardy Gallagher, SM, PMP
University of Massachusetts at Lowell

Abstract

Much research has been done to identify which side of the brain is used to control various functions in the body, especially learning and memory. The left side of the brain tends to control the logical functions; the right side tends to control the visual and creative functions. Although one side tends to dominate its respective functions, current research shows that more effective learning and memory result when both sides are developed to work together. By using teaching techniques that tap into specialties of both sides of the brain, the student should be able to learn more information better.

Left-Brained versus Right-Brained: Which is Better for Learning?

As educators, we attempt to transmit vast amounts of information to our students. We try to have interesting lectures and relevant projects but performance of students on exams can be very disappointing. We *know* we covered material adequately, yet students struggle with memorizing everything that we impart in time for the exam.

The past 30 years has seen a great deal of research on learning and memorization. One area of research has looked at the two hemispheres of the brain and the activities performed by each side. The left side of the brain performs the more logical functions, which deal with verbal and analytical processes. The right side performs activities that are more creative, dealing with patterns and relationships. By understanding how the brain works, researchers hoped to be able to figure out optimal ways for learning.

Traditional instruction in higher education has long been about words: the professor's lecture, the textbook descriptions, the writing assignments and the examinations. These activities make use of the left side of the brain. If student performance has room for improvement, do we need to do more with the "left brain" or should we focus on the "right brain"? The answer is "both", for the functions of each hemisphere are complementary and when tapping into both sides of the brain, the mind is at its greatest power and flexibility (Williams, 1983).

A review of the studies of learning, memory and hemispheric specialization follows.

Learning

Learning is the process through which experience causes permanent change in behavior or knowledge (Woolfolk, 1993). There are two primary schools of thought regarding how people learn, the behavioral and cognitive schools, each of which encompass many individual theories and principles. Cognitive theory focuses on the internal mental activities that bring about a change in knowledge. They focus on mental activities such as thinking, remembering, creating and problem-solving. Behavioral theory focuses on the effects of external events on the person. Great scientists, like Pavlov and Skinner, looked at how external stimuli could produce observable responses.

Memory

According to Woolfolk (1993), memory has three components: the sensory register, short-term memory and long-term memory. The sensory register is the original source of input to the memory. It constantly receives input from all senses and retains all of this information briefly. It encodes what it perceives to be important and passes it along to short-term memory. Much of what we perceive is related to how we give meaning to sensory input. Many theories, such as Gestalt, bottom-up processing and top-down processing, indicate that people tend to organize sensory information into patterns and relationships for enhanced learning and storage.

The short-term memory can retain five to nine separate items at a time that will last approximately 20-30 seconds. Long-term memory holds information that has been learned well. It has unlimited capacity and duration, although information can take some time to be learned well enough to be stored here. The brain is capable of absorbing more than 36,000 images per hour (Hyerle, 2000).

Woolfolk (1993) cites Paivio who suggests that information is stored in long-term memory as a visual image, verbal unit or both; information that is coded both visually and verbally, as the course graphic attempts to do, is easiest to remember. Woolfolk also cites Craik and Lockart, who have an alternative view of memory from the three component model above. Craik and Lockart suggest that what is remembered is related to how the information is analyzed and connected with other information; the more the person processes the information, the better the recall of it.

Using graphics in presenting material to students can provide the framework to help them analyze the key topics in the course and interconnect them. Careful design of the graphic and periodic review of it by the students creates the familiar image that organizes information and becomes memorable.

Hemispheric Specialization

For decades, scientists have studied the brain to understand how it functions with respect to processing information. As technology has advanced, scientists have been able to do more sophisticated research. We know that certain areas of the brain control various processes in the body.

Buzan cites many research studies conducted in the 1960's and 1970's, especially work done by Nobel prize winner Roger Sperry, Robert Ornstein and Eran Zaidel. In summary, the brain has two halves that are connected by a complex network of nerve fibers. Initial research concluded that each hemisphere specialized in different types of mental activity. In most people, the left cortex deals with logic, words, numbers and reasoning, "the so-called academic activities" (Buzan, p.17). The right cortex deals with images, imagination and patterns. While one side is actively processing information, the other side tends to rest. Research showed that when people worked to develop weak mental areas, that all mental performance seemed to improve.

Further research has discovered that each side of the brain actually replicates to a large degree the other side's abilities. Each hemisphere is capable of wider and subtler mental activities than previously thought. Both Perecman (1983) and Springer and Deutsch (1998) find no evidence that only one side of the brain is involved in a given cognitive task. Instead, both sides are engaged during mental processes, even though one hemisphere might be more dominant in a particular process.

Implication for Instruction

The key implication of this research for teaching is that use of a variety of techniques that appeal to both areas of brain function will improve student learning. For example, enhancing lectures with graphical aids or using color, music or other sensory experiences with a presentation or assignment will touch both logical and creative brain processes. Like any muscle, the more the brain is exercised, the more it develops, leading to an increase in the capability to learn and remember. If we educators can exercise the entire brain, the student should be able to learn and remember more.

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Ask Us or Contact Us

The Transformer is a collaborative project originally begun by five Doctoral students who were members of the **Leadership in Higher Education** course in Spring 2002. The three students who continue to bring you this newsletter twice per year are Charmaine Hickey, Carolyn Siccama and Steve Dion. You may contact us by e-mailing thetransformer@uml.edu