

Mediated Learning

A Newsletter by and for the Instructors of The University of Montana



Improvement of Students' Writing Skills: The Writing Center at The University of Montana

*Nancy Mattina
Director, The Writing Center*

If the dominant question in public education during the second half of the 20th century was "Why can't Johnny read?", there are many educators and parents who now wonder "Why can't Justin write?". Without reprising the acrimony surrounding the original Great Debate over reading instruction, we can look squarely at the deficiencies in many students' writing skills and take measured action. Nationally, bellwether institutions such as the SAT and GRE are replacing the analytical multiple-choice section with a timed writing

exercise. In Montana, educators appointed by the Commissioner of Higher Education and the Superintendent of Public Instruction are working with ACT to field test a writing proficiency exam as a college admissions requirement. Here at UM, the Faculty Senate has instituted as a General Education Requirement the Upper Division Writing Proficiency Assessment in order to evaluate student writing at mid-career.

(See WRITING SKILLS, page 4)

Intellectual Growth: An Opinion of an Expert Student

*Amy Lyngstad
First Year Graduate Student, Accounting*

As a graduate student in accounting I have taken many classes at The University of Montana that have contributed to my intellectual development. Surprisingly enough however, the class I have felt that has contributed most to my intellectual development is not an accounting class. It is not even a business class either. Sports Law and Ethics, a class offered by the Health and Human Performance Department and taught by Dr. Lew Curry, has been one of the best and most intellectually challenging classes I have

been involved with. It is not that the material and expectations of the class exceed any other I have taken, but it is a class that makes you look at yourself and your own morals and viewpoints in everything presented.

I have been an athlete for as long as I can remember. There has never been a time in my life that I didn't have practice or a competition to go to. Sports were always a way for me

(See INTELLECTUAL GROWTH, page 6)

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Editorial



Professor Mark Cracolice

I prefer a data-based approach to forming curriculum strategies that lead to improved teaching quality. Undoubtedly, there are merits to including philosophical and emotional perspectives in designing our courses, but the benefits of drawing conclusions based on research are clear. The more we understand human learning, the greater the potential we have to achieve excellence in teaching. I therefore present data in this editorial that you may find useful in your personal quest to improve your skills as a college instructor.

Data from our research group collected in Spring 2002 corroborate data collected from our earlier efforts and by others. *Only 25% of college freshmen have well-developed formal thinking skills.* Examples of these skills include classification, ratio and proportion, compensation and equilibrium, correlation, probability, and the ability to form mental models of unobservable causal agents. Items in this list of formal thinking skills are among those that comprise the components of the thinking abilities necessary to process the information we teach in all of our classes across the entire curriculum. The fact that makes data such as these so shocking is that children as young as 10 and 11 years of age have the ability to be accomplished formal thinkers. It remains imperative that we design our course curricula in an information-to-concepts manner that requires students to draw their own conclusions, mediated by interaction with instructors, so that students have to practice using their formal thinking skills. In this way, we can facilitate the development of these skills as well as teach the content of our disciplines.

Although “grade inflation” is sometimes cited as a reason for not having the ability to motivate students, the National Postsecondary Student Aid Study shows that a grade of A at a public 4-year institution is still reserved for only the top students. Only 10% of the 62,000 undergraduate students in this survey had a grade-point average consisting of mostly A’s. A’s and B’s made up the GPA of 10% of the students, mostly B’s, 25%, B’s and C’s, 21%,

and C’s and D’s or lower, 34%. Other types of institutions had different grade distributions.

The National Norms for Fall 2001 survey conducted by the American Council on Education and the UCLA Higher Education Research Institute found that the number one reason that freshmen selected the college they attended was “college has a very good academic reputation.” Yet the Princeton Review survey ranked The University of Montana in the top 20 of the 345 colleges surveyed in two of the four categories for poor academics, as perceived by students enrolled at the institution. The questions, “Are your instructors accessible outside the classroom?” and “How many out-of-class hours do you spend studying each day?” led to our poor rankings. We clearly have more work to do in this area.

The national ACT average score is 20.8. The Montana ACT average score is 21.7, but this test is only taken by an estimated 52% of the high school seniors in the state. The national average graduation rate at NCAA Division I institutions is 56%. Using the same metric for graduation rate as is used for the national statistic, UM’s graduation rate is 41%. (Montana State’s graduation rate is 31%.)

According to the U.S. Department of Education projections, the national percentage increase in college enrollment in the next decade will be about twice the increase seen in the past decade. The need for excellence in teaching will only increase as the college student population grows larger. (Most of the population growth will occur in the southern and western U.S., however. Montana is projected to have a 11% decrease in high school graduates in the next decade.) We must continue our data-based, scholarly pursuits into understanding the nature of human learning and the subsequent application of this knowledge in the college classroom. I will strive to make *Mediated Learning* a useful tool in your quest for professional growth as an instructor. Please consider contributing to our newsletter.

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Teaching Profile: Audrey Peterson, Department of Curriculum and Instruction

Brian Ehlert
Junior, Chemistry

Professor Audrey Peterson is a native of the Missoula area. She grew up here and received her bachelor's degree in Home Economics Education from The University of Montana. As a senior in college, she won a contest sponsored by the Pillsbury Company, which allowed her to go work for them. She worked for Pillsbury for a few years in Minneapolis, Minnesota, but decided that she wasn't doing anything that would make much of a difference in the world. She then went to graduate school at Pennsylvania State University. After receiving her master's in Family Economics she moved back to Missoula in 1970 and became a member of the Home Economics Department at UM.

In 1987 the state decided that it would only have one Home Economics Department, and as a consequence the department was closed at UM. When the department officially closed in 1989, Peterson became a faculty member of the Department of Curriculum and Instruction and at one point, served as the chair for five years. Peterson is currently serving as the Coordinator for Accreditation, which oversees nationwide standards for teacher certification. She has also recently been elected to serve on The National Board of Directors for American Council on Consumer Interests.

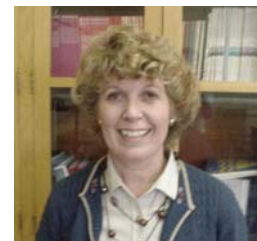
In her teaching, Peterson feels that if students can be actively involved in the class, then they will learn more and remember more. When she thinks back to the days that she was in school, she can remember her classes. But she can only remember the people she sat next to or what room it was in, but not what she learned. When Peterson took a class that involved active learning she remembered more of the material that was discussed in class.

Peterson strongly believes in group projects. She believes this allows students to interact with each other, to think about the subject material, and form their own opinions and ideas. Some of the group activities that Peterson likes to use in class are referred to as

“jig saw activities.” In these activities the class is split into groups. Each group discusses what they believe is the main point on a certain topic. Peterson calls these groups the “home group.” Once the home group has discussed their points for some time, a member of the home group will join a different group with the students from the other home groups. These new groups are called the “teaching group.” In this teaching group the students will teach each other about the main points that they came up with in the home group. After everyone has had a chance to teach the rest of the group about their topic they rejoin their original home group and discuss what they learned in their teaching group.

One thing that is unique about Peterson's teaching style is that she administers nontraditional exams. In the first part of an exam period, she gives out the exam and the students go through it as usual. When they are done they hand it in and grab another blank copy. They will then pair up and discuss the exam with their partners. Going through every question with another person, and discussing their own beliefs and reasons behind their answers help in solidifying the information in the minds of the students. Granted, they will get some answers wrong, but the second person may be able to correct that and help to explain why. If between the two students they can come up with the right answer to the questions that they got wrong the first time, Peterson will give partial credit to the students. In her past experiences with doing this she has not seen a huge difference in the performance of her students. Peterson strongly believes that this activity creates a teachable moment, which is when the student realizes that they do not understand the material and are focused on learning the concepts.

In the classroom Peterson sees herself as a partner in learning. She feels that she is there to not just teach students, but to help the students learn the material. This means that she



Professor Audrey Peterson

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Peterson

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doesn't just tell them the answers or how to do something. She will aid them in learning on their own. She also believes that it is very important to work with other faculty as partners because the curriculum on campus is in the hands of the faculty. Peterson says that it is very important for the faculty to work as a team. Find out what others are doing and what they teach. This may help you in designing your course to prepare students for future courses.

In this modern era of the Internet, Peterson has found herself adapting it into her classrooms. This autumn, Peterson is trying out a course supplements program that is new to UM. This program will allow students to access course materials, post discussion questions and comments, and also partake in live chats all online with others in the course. Peterson hopes that this will get more students involved in the course.

Peterson's words of advice for current and future educators are straightforward: “keep the students active.” If students are not active in learning they will not benefit from the course.

They will retain more information from an active learning environment. She also says to watch out for those teachable moments. If you take advantage of those moments where the student wants to learn you will be much more successful at teaching them new information. Peterson also advises that you keep your goals clear. Make sure you have an idea of what you want the students to be able to do when they leave your course. This will help you in designing your course materials.

Professor Peterson has done many great things as an instructor. She tries to include student activity as much as possible in the classroom, and is a strong believer in working as a team. As the world changes around us, so does Peterson's course design. She has worked hard to keep up with the new technology, and has managed to work it into her classroom. Peterson never forgets that she is there to help the students learn and not there to just give answers. As a result she thinks of herself as a partner in learning, and places more responsibility on the students to learn on their own.

Writing Skills

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“The Center's mission is to improve undergraduate writing at UM through strategic teaching, faculty development, and customized programming in writing instruction.”

What these new writing assessments take for granted is that there be a renewed emphasis on writing instruction across all disciplines. Fortunately for University of Montana-Missoula students, President Dennison funded and Provost Muir facilitated the creation of The Writing Center, which opened its doors this fall, in 211 Todd (Continuing Education). The Center's mission is to improve undergraduate writing at UM through strategic teaching, faculty development, and customized programming in writing instruction.

In creating The Writing Center, we were fortunate in another regard: we were able to draw on the considerable experience and

research of several generations of writing center personnel to tell us what to avoid in establishing a writing center.

First, no one should conceive of a writing center as a place where students go to have their papers corrected before turning them in. The Writing Center staff teaches students how to analyze, plan for, and carry out a writing assignment. The goal is to create writers who can critique and edit their own written work. The tutors are highly qualified writing instructors but the success of their efforts depends heavily on the student's commitment to improving his or her writing through concerted effort and practice.

(See WRITING SKILLS, page 5)

Writing Skills

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Second, a writing center cannot exist to serve only the most underprepared students whose academic woes may extend well beyond poor writing skills. The most successful writing centers welcome students of all abilities with the premise that all writers encounter problems from time to time and that no writer is so skilled as to be unable to profit from a timely, constructive critique or a new writing strategy.

Third, and perhaps most importantly, a writing center cannot have the sole responsibility on campus to "fix" students who do not write well. Instruction at the Writing Center supplements but does not replace instruction within other academic programs. It is for this reason that we include faculty development in our mission. Faculty who call on The Writing Center to give in-class workshops, who refer students to the Center, who use our online resources, and who offer feedback on the Center's services are demonstrating to students that writing skills matter. This is crucial to the Center's effectiveness.

Together with these founding caveats, The Writing Center also has a clear instructional method that we believe offers the best chance of improving students' writing skills. Researchers at the University of Kansas Center for Research on Learning have over the last twenty years developed and tested a teaching methodology known as the Strategic Instruction Model (SIM). This model recognizes that students 1) always bring preconceptions, however flawed, to a learning task; 2) learn best when they are made conscious of their learning strategies; and 3) must be able to repeat successful strategies in alternate contexts if the learning is to be lasting. At The Writing Center, we practice strategic tutoring, an outgrowth of SIM, which analyzes a tutoring session into four phases: assessment, construction, teaching, and transfer.

In the assessment phase, the tutor asks the student to analyze the assignment and to describe the strategy or plan the student has in mind for completing the assignment. Typically, the student's strategy has not been

successful in the past (witness the student's appearance at a tutoring session) but is used for lack of any other. With this information in hand, the tutor can offer the student a better strategy for completing the task and gain the student's commitment to learning it. The tutor then works with the student to construct an explicit strategy, often incorporating the useful elements of the student's original strategy into the final product.

In the teaching phase, the tutor models the new strategy, reinforcing key vocabulary as needed. For example, if a student and tutor have developed a strategy for identifying incomplete sentences, the tutor demonstrates how to use the new strategy with specific examples, preferably from the student's paper. He may also teach the notions "subject" or "predicate" if the student is willing. Or, if the tutor discovers in the assessment phase that the student did not think about the topic before beginning to write (a not uncommon occurrence), the construction and teaching phases are used to identify and model a pre-writing strategy that appeals to the student.

The transfer phase of strategic tutoring entails that the tutor observe the student applying the new strategy to check that the student has grasped it. Of course, the tutor has to be attentive, supportive, trustworthy, and personable all the while, in addition to being a keen listener and analyst who knows a good deal about English writing and grammar.

Strategic tutoring may have a familiar ring to it: its conceptual bases intersect with the state-of-the-art recommendations for improving students' intellectual skills detailed in the three previous issues of the CTE newsletter. This should not be surprising. Few, it seems, would argue that good critical thinking skills are unrelated to competent academic writing. By virtue of this, The Writing Center stands to play an important role in improving student performance overall and enhancing instruction across the disciplines. More information about The Writing Center and its services is available at www.umt.edu/writingcenter.

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Intellectual Growth

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have fun. This class showed a different side of sports, one that I was not quite familiar with until I got into high school and college. It was a side of sports that showed unnecessary court involvement, the pressure being put on children at such a young age to perform, and situations that sometimes got completely out of hand. There were cases presented in class about parents fighting parents at Little League games, coaches getting sued for players getting hurt in a competition, and abuse of all kinds on athletes from coaches. It was sad to hear some of these unfair and frustrating situations but it made me realize that unfortunately times have changed, even from when I was in Little League. I plan on having children someday, and if they do sports I want them to have as much fun as I did and not have to worry about the pressure or anything else, but I do know that I have to be aware that this does go on. The law has gotten involved in so many things, and learning about the law and how it works is essential in this day and age. This class went over all aspects of the law as it applied to sports as well as life in general. The cases that were presented in class really made me think

about my own personal views on the situation as well as asking, "how could anyone possibly do this?"

The other topic discussed was that of ethics. This was the most interesting and relevant subject we went over in the class. No matter what you do in life or what major you choose, ethics are always involved. Your morals and feelings about certain situations guide how you act as a human being. Ethics cases that were presented in this class challenged my way of thinking. Discussions with other classmates challenged my morals and also showed me how important it is to stand your ground when you believe in something. By having these situations presented in class, it really made me think about what I would do in a given situation and whether or not my beliefs would be compromised by "going with the flow." With all you hear about corporate scandals and frauds, ethics are extremely important (and needed) in today's business world. I know my morals and ethics will be challenged at some point in my life, but I do believe that I will now be better prepared.

"...The primary goal of instruction is not merely to teach concepts but to teach students how to change old concepts and construct new ones when appropriate."

A. E. Lawson

"As we look for improved effectiveness in college science teaching and for the sources of our failures, experience makes it increasingly clear that purely verbal presentations--lecturing at large groups of students who passively expect to absorb ideas that actually demand intense deductive and inductive mental activity coupled with personal observation and experience--leaves virtually nothing permanent or significant in the student's mind."

A. B. Arons

Grant Opportunities in Teaching and Learning

In this column, we highlight funding opportunities specifically related to teaching and learning. A brief abstract is presented, followed by the web site address from which you can obtain further information. Please contact us at cte@selway.umt.edu if you are aware of information that can be presented in the next issue of Mediated Learning.

The National Science Foundation, through its Research on Learning and Education (ROLE) program, will award about 35 million dollars per year in the form of 20 to 40 annual awards. The program is divided into four subdivisions: (1) brain research and its applications in research on human learning, (2) fundamental research on human learning from the affective, behavioral, cognitive, or social perspectives, (3) science, technology, engineering, and mathematics (STEM) education, and (4) STEM learning in complex educational settings. Multidisciplinary research teams are encouraged.

Due: Preliminary proposal, March 15; Full proposal, June 10

<http://www.ehr.nsf.gov/rec/programs/research/>

The Pew Charitable Trusts awarded almost \$14,000,000 in education grants in 2001. They seek to award grants that educate the public about issues related to higher education performance and to improve the quality of information available to measure higher education performance. They also have an early education grants program to increase public understanding of the need for quality early education for children.

Due: Anytime

http://www.pewtrusts.com/grants/grants_item.cfm?image=img3&program_area_id=3

The primary mission of the Spencer Foundation is “to investigate ways in which education, broadly conceived, can be improved around the world.” They have a major grants program (> \$35,000) and a small grants program (\$1,000 to \$35,000). The foundation awards grants across a broad spectrum. Sample titles of major grants awarded in 2001 include “Effects of Iron and Zinc Supplementation on Neuropsychologic and Educational Achievement on Lead-Exposed School Children” (\$653,000), “Socializing Autistic Children into the Rules of School and Family Life” (\$508,000), and “An Evaluation of Florida’s Voucher (“Opportunity Scholarship”) Program” (\$475,000).

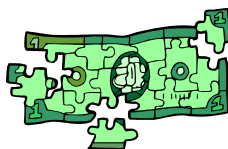
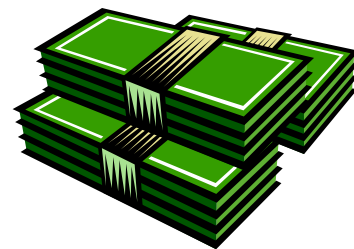
Due: Anytime

<http://www.spencer.org/programs/index.htm>

The National Endowment for the Humanities awards Exemplary Education Projects grants to improve formal humanities education. The funds in this program are for curriculum development, materials development, and to disseminate exemplary teaching practices. The maximum award is generally about \$250,000. Recent grants include a project to prepare history and social studies pre-service teachers, an undertaking designed to develop a web-based and CD-ROM multimedia fourth grade social studies unit, and a project to disseminate methods for teaching with technology in humanities courses in community colleges.

Due: October 15

<http://www.neh.gov/grants/guidelines/eep-hfg.html>



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The Center for Teaching Excellence at The University of Montana was established in July, 1999 when it received approval from the Board of Regents. The Center is administered out of Academic Affairs.

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