

Student-Centered Scholarship

BY DOUG MCELROY

Research as a teaching tool

Chris Wedding taught environmental science in Central America as part of his honors thesis.

“The whole art of teaching is only the art of awakening the natural curiosity of young minds for the purpose of satisfying it afterwards.”

Anatole France

At Western, scholarship is a teaching art. Whether by engaging undergraduates in ongoing research and creative activities, or in guiding students as they explore their own scholarly pursuits, Western faculty use the discovery process as a means of reinforcing concepts taught in the classroom.

“Becoming involved in research enhances students’ intellectual growth by providing them a taste of the research process, which cannot be learned in a classroom,” said Dr. Joe Bilotta of the Department of Psychology. 2000 graduate Jalynn Barnett agreed. “Participating in Dr. Bilotta’s Neuroscience Laboratory provided me the opportunity to incorporate a greater understanding of psychology and biology with the hands-on experience of becoming an active member of a research laboratory team.”

For many students, their introduction to the creative process comes through involvement with the University Honors Program. Students in the honors program are required to complete an undergraduate honors thesis on a topic of their choosing. “The thesis is a chance for students to put a personal stamp on their professional training,” said Dr. Doug McElroy, Honors Director. “It also demonstrates they can combine creativity, insight, and intellectual curiosity with the self-motivation and perseverance necessary to produce a tangible intellectual product.”

The majority of students who complete the honors program curriculum go on to graduate or professional school, and the experience they gain through their honors thesis work often provides them a leg up on success. “Western’s honors program gave me the opportunity to write and defend a thesis on my chemistry research that resulted in two publications,” said 1997 graduate Jonathan Whetstine. “I could not have asked for better training in preparation for my graduate career.”

1999 graduate Chris Wedding is another who made the most of his opportunity to participate in research as an undergraduate. After completing his honors thesis project as a sophomore, Chris applied for and was awarded a prestigious Barry M. Goldwater Scholarship. “This in turn facilitated two of my study abroad programs: teaching environmental science in a rural school on an island near Panama, and studying language and sustainable agriculture in Spain,” said Chris.

Student Discovery

A successful undergraduate research experience begins with a solid concept developed and direction provided by a faculty member, but comes to fruition only through the careful, diligent and dedicated efforts of the student. When these factors coalesce, the results can be truly outstanding.

Recent biology graduate Natalie Bryant won the award for best undergraduate poster at the 1999 Meeting of the Kentucky Academy of Sciences. The results of her thesis, entitled *Uptake of Lead by *Sesbania drummondii** and directed by Dr. Shivendra Sahi, were also presented and published in the proceedings of the 5th International Conference on the Biogeochemistry of Trace Metals.

Gail Guling used her thesis, *Black Enfranchisement in Kentucky: The Impact of the Voting Rights Act of 1965*, directed by Dr. Patricia Minter, to provide a historical perspective on racial conflict and political representation in Louisville. As a result of her efforts, she was the only undergraduate selected to present a paper at the 2000 Ohio Valley History Conference, and won the award for best undergraduate paper presented at the 2000 meeting of the Kentucky Political Science Association.

She was awarded a national Phi Kappa Phi Graduate Scholarship and received offers of admission to the law schools at both Vanderbilt and Harvard Universities.

Jalynn Barnett did research with the Neuroscience Laboratory of Western Kentucky University, which is investigating the effects of environmental stressors on the zebrafish.



PHOTO BY JOE BILOTTA

The chance to spark a lifelong intellectual interest in a student is the most satisfying aspect of mentoring students.

Some of the best thesis research is interdisciplinary. Recent graduate Michael Blair was able to combine aspects of his two majors, physics and archaeology, in his thesis, *Archeoastronomy at the Shiloh Mound Group*, directed by Drs. Roger Scott and Darlene Applegate. By comparing the alignment of mounds with predicted solar, lunar and stellar positions during 1000 A.D., Michael was able to make very suggestive arguments for the significance of the Tennessee site as a celestial timekeeping device. His work was selected as the best contribution from Western at the 1999 Kentucky Honors Roundtable.

In the liner notes to his symphony *Voices from the Margin*, 1999 honors graduate William Compton explains his attempt to convey "the experience of domestic violence, from a victim's perspective." The resulting four movement composition, produced under the direction of Dr. Michael Kallstom, is a powerful integration of social commitment and well-learned craft.

Kristi Runyon used her perspective as an African-American broadcast journalist as a starting point for her analysis of the current state of minorities in the media. Combining analysis of statistical trends with personal accounts derived from conversations with six minority media professionals, Kristi's honors thesis, directed by Dr. Terry Likes, explored the history, current status and potential of minorities in the media.

Michael Croley drew on his experience growing up in Appalachia as an inspiration for his collection of short stories, entitled *A Place to Cross and Other Stories*. His thesis, directed by Mary Ellen Miller, presents stories and characters "trying to find a place to cross." According to Michael, "People live lives of unfulfilled promise and honest mistakes that hold them back." As an indication of his promise as a writer, Michael was selected to participate in the 2000 Advanced Fiction Workshop conducted by Tom Jenks and Carol Edgarian.

A Natural Complement

Working side-by-side with students provides the opportunity for faculty to get to know students better and on a more informal basis. "This enables the professor to help the student prepare for the future, whether it be attending professional school or trying to find a job," said Dr. Bilotta. At the same time, faculty get the chance to witness firsthand the "awakening" of a young mind upon which France placed so much emphasis.

The chance to spark a lifelong intellectual interest in a student is the most satisfying aspect of mentoring students. Dr. Elizabeth Lemerise from the Department of Psychology is one of many faculty to have experienced this



Natalie Bryant ('00) did her honors thesis research on the potential for bioremediation of sites contaminated by lead.

gratification firsthand. "Recently I received a letter from a former undergraduate who is currently a Ph.D. candidate at the University of Maryland. In it, she said that her research experience was instrumental in developing her interests in developmental science and in forming her aspirations for graduate study. I think this student is a good example of how undergraduate research experience can open doors to both opportunities and to a passion for the pursuit of knowledge."

Western faculty believe strongly that meaningful and significant academic achievements can be generated as an integral part of, not in spite of, a commitment to provide the best possible educational experience for undergraduates. The demonstrable success of the students who have come before helps ensure that Western will continue to attract outstanding students in the future, and that the strong tradition of student-centered scholarship will continue.

Dr. Doug McElroy is director of the University Honors Program and an assistant professor of biology.