



***Integrating Undergraduate  
Teaching and Research***

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Undergraduate Research Symposium which is sponsored by the St. Louis local section of the American Chemical Society. This symposium is held at a different college or university in the St. Louis metropolitan area each spring, and is open to all students to present their research on chemistry-related topics in either oral or poster format. The American Chemical Society holds regional and national meetings, and the students can attend those and give poster presentations on their work. Funding is typically provided by the College of Arts and Sciences, the Chemistry Club/ACS Student Affiliates Chapter, the department of chemistry, and the American Chemical Society. Not only do these trips give the students an opportunity to tell others about their work, but there are other activities at the ACS regional and national meetings that are geared specifically toward the students including guest lecturers, graduate school fairs, and workshops on interviewing and resume preparation.

The students are also required to write up their work in the form of a senior thesis. Writing a scientific paper is yet another way that scientists inform others about their work. There is also the possibility that the students' work can be published in a peer-reviewed scientific journal. In fact, most of the chemistry faculty

Every faculty member knows that research is vital to scholarship and teaching. Almost every discipline at every academic institution involves research of some kind, whether it be scientific, social, humanistic, or

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doing research and thinking about it with students is teaching — in the laboratory, in the clinic, in the community, and in the classroom.

Our recognition as a “research” university not only confirms our traditional commitment to educating graduate and professional students to discover new knowledge, but it also assures undergraduate students that they will be instructed by faculty who are active scholars and whose scholarship enriches the undergraduates’ learning. If either the role of teaching or research is neglected by the institution, the needs of the undergraduate, graduate and professional students will not be met. A quality institution of higher education needs to simultaneously attend to its commitments to research, teaching and service .

Jules LaPidus, the past president of the Council of Graduate Schools, has written that professors may not always remember that the most important thing they learned in their doctoral education was not necessarily the specifics of their dissertation research, but rather the generalizability of the scholarly process. It is this process of thinking, reading, and listening critically; understanding the ethical responsibilities and conventions of the discipline; defining and analyzing problems; determining what research needs to be done and how best to do it; and, understanding the meaning of the research results – these are the qualities that should be cultivated in laboratories and classrooms alike.

To paraphrase another statement from LaPidus, research is something you do whereas scholarship is



**The Technology Corner**  
**"An Update on Using WebQuests to Foster Student Research"**  
*Sandy Gambill, Assistant Director*  
*Reinert Center for Teaching Excellence*  
*and Coordinator of Technology and Learning*

I'd like to twist our theme of integrating teaching and research to present a strategy for helping students develop their own research skills. Dr. Bernie Dodge developed the WebQuest concept in 1995 at San Diego State University. He describes the WebQuest as "an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web." A WebQuest might run for one class period, a week or two, or an entire course.

A WebQuest typically revolves around an open-ended question that can be approached from multiple perspectives. Students are presented with a task to complete, a process by which to complete the task, and suggested resources for research. According to Dodge, by pre-selecting resources the WebQuest creator is "using learners' time well, to focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis and evaluation."

Role-playing is an interesting aspect of the WebQuest process. Students assume roles associated with

the question, and conduct research from the perspective of this identity. Role-playing can make approaching a controversial topic such as Euthanasia or capital punishment easier, because the student is forced to interact with the subject from a fresh perspective. After the research process, students are typically asked to come to a consensus about the question.

During summer 2004, several faculty members participated in a weeklong WebQuest creation project co-sponsored by the Center and Pius Library. Several of these WebQuests are currently being used in SLU courses to help undergraduate students enhance research skills. Please contact the Center at 977-3944 or on the web at [www.slu.edu/centers/cte](http://www.slu.edu/centers/cte) or your department's Library liaison if you are interested in more information on the use of WebQuests in developing students' research skills.

For more information on WebQuest visit:

On January 7, the Office of Research Services, the Graduate School, and Reinert Center for Teaching Excellence co-sponsored “Making the Link: A Faculty Forum on Undergraduate Teaching and Research.” This issue of The Notebook focuses on the same topic in order to make ideas presented at the forum more broadly available across campus. We are grateful to participants in the forum who have been willing to share their experiences and ideas on involving undergraduates in research for this issue.

At the forum, Dr. Charlotte Royeen, Dean of the College of Health Sciences, describ4(1)-(o)-1.57(ii7.3(hh8.84l)5.4(l)w7(n)4.4(h8.84h)4(pl)5.4(-4(pli.57(Ch)-8p3.1( )291 TDeer

