From my two years working with faculty and instructors across the disciplines, I’ve seen exciting research opportunities for undergraduates. A very small number of those are highlighted within these pages. I’m also convinced there’s room to do more—to expand projects beyond a single semester or course audience.

Why Mentor Undergraduate Research? There are possibilities for engaging students in authentic and professional research experiences, in mentoring students as they develop methods of inquiry, conduct original research, and present their findings and arguments to broader disciplinary and public audiences.

As experienced researchers know, writing is essential to every stage in the research process: from asking questions to disseminating findings. Whether students present their research at the annual campus Undergraduate Symposium, publish in the humanities undergraduate journal *Illumination*, or co-author with collaborators in research labs, they learn why we research, write, and speak with others in and beyond their disciplines. Students also see how new research informs and challenges what’s taught in courses.

In fact, I’m convinced that mentoring students in undergraduate research is a good use of our time because it has the potential to:

- engage students more deeply in their disciplines and in their undergraduate educations
- increase student involvement and motivation when the audience for assignments stretches beyond the instructor and classmates to a larger public audience
- emphasize the role writing and speaking play in students’ chosen fields and professions
- allow students to experience the intellectual excitement of generating new knowledge
- advance students’ skills in information literacy
- deepen instructor relationships with students through intensive mentoring based on an authentic research experience

(Continued on page 2)
When undergraduates engage in substantial, original research, they move into a powerful role of teaching others about complex ideas.

If you’re already mentoring undergraduate researchers, we hope you’ll recommit to this important work. If you’re not, we hope some of the ideas presented in this newsletter will inspire you to do so in future semesters.

Mentoring undergraduate researchers is some of the most important and fulfilling teaching we can do.

It provides students with the type of “high-impact” learning experience that Wren Singer, Director of Center for the First Year Experience (CFYE), says all UW-Madison students should participate in, starting in their first year:

“it is ideal, according to research conducted by Professor George Kuh from Indiana University, for new students to participate in at least one ‘high-impact’ educational experience in their first year on campus. Participation in a learning community, a first-year seminar, a service-learning course, or undergraduate research early on is tied to higher levels of student engagement and second-year retention.”

Transforming Writing Assignments into Research Assignments

A Sampler of Writing-Intensive Undergraduate Research at UW-Madison

<table>
<thead>
<tr>
<th>Program/Course and Coordinators</th>
<th>Research and Publishing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undergraduate Research Scholars (URS)</strong></td>
<td>For academic credit, first- and second-year students participate in intensive, hands-on research. Every year more than 100 students enroll in a course that complements their intensive year-long research experiences. URS students present at UW-Madison’s Undergraduate Symposium each spring and sometimes co-author or publish articles based on their research. A few Scholars present at the National Conference on Undergraduate Research annually.</td>
</tr>
<tr>
<td>Program Director: Svetlana Karpe</td>
<td></td>
</tr>
<tr>
<td>Program Coordinator: Amy Sloane</td>
<td></td>
</tr>
<tr>
<td><strong>Introductory Biology 152</strong></td>
<td>Of the students who take this Comm-B course, a significant number (this past year roughly 450 students) conducts original, mentored research in biology labs. Students with mentored research projects present at an evening poster session to their mentors, families, and guests, in addition to presenting their work in lab during the last week of class. The vast majority of these students continue to work in research labs for two or more additional semesters. Some students also present at the Undergraduate Symposium, and a few each year have their names included on research published in scientific journals.</td>
</tr>
<tr>
<td>Course Coordinators: Cindee Giffen</td>
<td></td>
</tr>
<tr>
<td>Jean Heitz</td>
<td></td>
</tr>
<tr>
<td>Kerry Martin</td>
<td></td>
</tr>
<tr>
<td>Brian Parks</td>
<td></td>
</tr>
<tr>
<td>Carlos Peralta</td>
<td></td>
</tr>
<tr>
<td><strong>L&amp;S Honors Program</strong></td>
<td>In addition to presenting at national conferences, publishing their work in undergraduate journals, and co-authoring publications with faculty mentors, 150-175 L&amp;S Honors students graduate each spring with an honors thesis developed from semesters of mentored research in their majors. Students may apply for funding to support their research—early in their undergraduate careers through the Summer Sophomore Apprenticeship and later for Senior Honors Theses Grants, which provide travel stipends, supplies, or summer support.</td>
</tr>
<tr>
<td>Director: Charles Snowdon</td>
<td></td>
</tr>
<tr>
<td>Associate Director: Jeff Shokler</td>
<td></td>
</tr>
<tr>
<td>Assistant Director: Molly McGlone</td>
<td></td>
</tr>
</tbody>
</table>

Time to Write
Inside Experience in Psychology Research

By Beth Godbee, Writing Across the Curriculum

Psychology professor Janet Hyde, who specializes in the psychology of women, human sexuality, and gender-role development, has a passionate commitment to giving undergraduates “inside experience in psychology research.”

In fact, at any one time, Hyde, like many of her colleagues, is mentoring 12-14 psychology majors who participate in intensive research and writing.

Structure Built into the Major

Even in a large major with a number of large lecture courses, undergraduates in psychology have the opportunity to gain research experience, mentored by faculty, extending over multiple semesters.

Students majoring in psychology are required to take two advanced “Level III” courses, and students can complete this requirement with two semesters of research and writing. Undergraduates working in Hyde’s lab spend approximately two hours in class, two hours reading and writing, and five hours working in the lab each week. Both semesters they write papers, receive feedback, and are encouraged to revise.

Writing and Revising over Multiple Semesters

In Hyde’s lab, students work two semesters to earn the advanced course credit, or they work over two or more years to complete a senior honors thesis. Following either path, students interested in adolescent development begin the same way: they learn how to follow lab procedures, code transcripts, manage data, construct scales, and code mother-child relationship quality from videotapes.

Students contribute to data and analysis of what’s now a 19-year-old longitudinal study of families in Wisconsin. Drawing from hundreds of variables in this data set, students pose a question of interest to them. If they are interested in social class, for instance, then they may study whether parents’ education correlates with outcomes for the children.

Based on their questions, students write proposals, in APA style, for a professional audience. At the end of spring semester, Hyde gives students detailed feedback on their proposals so that when students return in the fall, they respond as they would to reviewers’ comments.

Hyde explains that this exercise is designed to give undergraduates “experience with a process that all of us go through in psychological science and other employment areas—revising work to meet reviewers’ comments, whether for a grant proposal or a journal article or a boss.”

Throughout this challenging and intensive research experience, Hyde encourages students to go beyond requirements and to become deeply engaged in the research. She writes in the syllabus what she reinforces when working alongside students in the lab and when meeting in classes and conferences: “Set a goal of adding even more good material to your paper; for example, you could find more relevant journal articles and add them to the introduction. Don’t do the Minimum—do your best!”

Undergraduate Grants, Presentations, and Publications

This mentored research, Hyde explains, works best when students begin in the spring of their sophomore year, apply for grants in their junior year, and conduct a senior honors project in their senior year. Hyde encourages all of her honors students who have started in the lab as sophomores to apply the next year for Hilldale Grants, competitive undergraduate research awards, which fund students to stay in Madison over the summer and work 15-20 hours each week on data collection and analyses.

As students move from proposal writing to data analysis to writing their results, they also receive several rounds of feedback from Hyde, who then encourages students to present their work at the annual Undergraduate Symposium.

Some highly motivated students move from sharing their work through research posters and oral presentations to

(Continued on page 4)
submitting it for publication. Hyde explains it’s not as simple as writing it up and getting published: “At times, their work is too similar to what’s already been done, so it doesn’t make for good publications; but at other times, their work is very good and has been published.”

One of her students received a Hilldale to analyze the role of divorce in adolescent development. She compared children whose parents had divorced since entering the study with those whose parents had not and then looked at their adjustment ratings and other variables. She presented at the Undergraduate Research Symposium, and she got this work published!

Benefits for Students and Mentors Alike
Hyde emphasizes that participating in the publication process is “a really good learning experience even when students don’t get their work accepted.” Students report they “can see how their writing has improved” over semesters of research, and they develop polished papers that can be submitted as part of graduate school applications.

“As Hyde explains, perhaps the most significant benefit is that students understand a ‘bi-directional process of research’—a process of thinking about research design, then writing, going back to the research, and writing again.”

Students are better positioned for graduate school and job applications because they have built strong relationships with faculty; “One of the advantages of this work—both for me and for the student—is that we get to know each other very well, so I can write a much better letter of recommendation.”

As Hyde explains, perhaps the most significant benefit is that students understand a “bi-directional process of research”—a process of thinking about research design, then writing, going back to the research, and writing again. “Students come to understand that the two—writing and research—are intimately connected.”

Whether students continue as researchers or follow other career paths, Hyde says, research writing is “an awfully good skill to have,” a skill students develop through mentored research.

(Continued on page 5)
The Assignments
Throughout the semester, students did a variety of written and oral assignments:

- **a preliminary case narrative**—a paragraph-length story they thought they might be telling in their exhibit case; these narratives were shared and discussed with other students
- **a literature file** with secondary sources, posted to a shared webspace
- for each of three books in a student’s exhibit case, a “one-pager,” with information about the author and book, what was interesting about it, how it fit the case narrative, and what might be interesting to show from the book
- **a longer paper**, synthesizing and developing all three of the one-pagers and the preliminary narrative into a more fully developed and argued five-page narrative for the exhibit case
- **a one-page case caption**, distilled from the longer narrative and displayed in the exhibit
- **a three-minute gallery talk** by each student
- **written reflections** on the course

These assignments built on one another in a careful sequence as students did more research and prepared the public exhibit.

Throughout the course, students shared their drafts with each other, gave and received feedback, revised, and then revised again. Students also received copious feedback from Rider—in individual conferences with her and through electronic comments on drafts.

Because students had little experience curating an exhibit and writing case captions, Rider built in specific opportunities for students to learn about exhibits and about this genre of writing. Rider had students look at a number of online versions of exhibits and talk through the goals and conventions of case captions, such as attention-getting devices, packing lots of information into each sentence, and writing long and then cutting.

To encourage students to revise their drafts fully and frequently, Rider had a recent paper of her own at the mid-editing stage, with all of the changes tracked in Word, and, as she explained, “some eyes grew large at the amount of work that seemed to be involved.”

Reflections
Reflecting back on the course, Rider explained,

“one of the truly gratifying portions of what was a very gratifying course was our preliminary discussion of museums and museum experiences. The students were so thoughtful. They had such an interesting range of opinions and concerns. It was quite clear that they were well prepared to reflect on what it means to be a museum viewer. And that played out in several different ways as the course went on. They were, for example, very good at finding visually appealing objects to exhibit, which is not always easy in 19th-century science. The fonts in books are often very small, and the books are heavy on text. But when students found a striking illustration, it could be a blockbuster.”

Students walked through the exhibit area in Special Collections and discussed how people would experience it. “We discussed sequencing and what themes should go where,” focusing on places that are “privileged in a spatial narrative.” Overall, Rider thought the course “went really well.” She did note that her students faced numerous logistical hurdles finding books across campus. And “I perhaps underestimated the instructor time it would take. I did want a quality product and students came with various skill sets, varied backgrounds, so some needed some more time and help from me.”

In the end, Rider and her students were impressed by all they had accomplished in a semester—that students had, in fact, curated an exhibit. Rider explains, “I think students liked the notion of creating visible, tangible products in the exhibit.”

Would you like to talk about new approaches to undergraduate research writing like the ones showcased in this special issue?
As always, the Writing-Across-the-Curriculum Program is happy to consult with you!
Feel free to email us: Brad Hughes (bthughes@wisc.edu) and Beth Godbee (godbee@wisc.edu).
Thanks to Comm-B TA Fellows!

Honored for their outstanding teaching in Comm-B courses, these four TAs helped plan and lead the January 2010 Writing-Across-the-Curriculum training for new Comm-B TAs from across campus.

**From left to right:**
- David Havas, Psychology
- Kara Dempsey, Geography
- Kelly Schultz, Zoology
- Lisa Feldkamp, Classics

---

The Newsletter of the L&S Program in Writing Across the Curriculum
University of Wisconsin-Madison

Department of English
University of Wisconsin-Madison
6187 Helen C. White Hall
600 North Park Street
Madison, WI 53706
http://mendota.english.wisc.edu/~WAC

---

Our mailing labels reflect current personnel listings, and therefore we cannot make changes or deletions. We apologize for any inconvenience this may cause.