By Kate Vieira
Writing Across the Curriculum

How does one go about updating a curricular classic? And what role do writing assignments play? These are the questions we asked Assistant Professor Helen Blackwell, recent winner of a prestigious university teaching award. We were interested in how she and colleagues reinvented the Intermediate Organic Chemistry Laboratory (Chemistry 346). This course, an upper-level undergraduate elective, has been one of the Chemistry Department’s staple undergraduate courses for decades. The goal of the reinvented course? To provide advanced training in chemistry research to undergraduates.

To reach this goal, the new version of the course incorporates the very latest lab techniques in a field that is evolving rapidly. In addition, students learn how to write about their findings much like professional researchers. As Professor Blackwell puts it, “There are times when 50% of a chemistry researcher’s job is dedicated to writing. Thus, learning how to write effectively is crucial.”

Just as writing is an important professional activity, Blackwell reports that it also helps students learn. “If you don’t understand a concept well, it’s hard to write about it,” she points out. “The process of writing forces you to understand what you are doing and understand it in a broader context. For a student and a teacher, what could be better than that?”

Thus a new, improved version of Chemistry 346 was born. And now, to the delight of many chemistry students, it also fulfills the University’s Communication-B requirement.

The Nuts and Bolts

This new version of Chem 346 includes a number of opportunities for students to hone their communication skills. In the first half of the semester, students write three lab reports based on experiments connected to Nobel-prize-winning chemistry research in various areas. For example, students conduct labs on the synthesis of antibiotics (Paul Ehrlich, Nobel 1908), natural products isolation and total synthesis (George Wittig, Nobel 1979), and the development of asymmetric chemical reactions (Sharpless, Knowles, and Noyori, Nobel 2001).

In the second half of the semester, students are assigned to graduate research groups in the Chemistry Department and work with graduate-student and post-doctoral mentors on ongoing projects. From these projects, students write up a two-page “extended abstract”

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including the following sections: introduction, results, graphic representation of findings, significance, and annotated bibliography. This format is modeled after abstract formats required by certain scientific journals.

Finally, students present their research results in a poster format during a class poster session during the last week of the course. The poster session allows students to practice scientific presentation skills.

In order to teach scientific writing, Professor Blackwell follows some of the latest theories in writing-across-the-curriculum research. In accordance with these theories, she uses four main strategies.

1) **Repeating a genre several times over the semester.** Students write three lab reports over the course of the semester. While the experiments that students report about differ, the genre remains constant. This consistency gives students a chance to practice and improve from one assignment to the next.

2) **Incorporating peer review.** Blackwell reports that peer review has been one of the most popular aspects of this course and has helped students’ writing improve significantly. She models the in-class peer-review process on the kind of peer review conducted by scientific journals. At the outset, students focus primarily on the science during the review process. As students improve on the science of their lab reports, their arguments become more cogent, which helps improve their writing. While Blackwell requires peer review only for the first lab report, many students find it so useful that they voluntarily participate in peer review for the remainder of the semester.

3) **Teaching about writing in class.** Blackwell has found a number of different ways to give students direct instruction about the kind of writing she wants them to produce.

For example, one of the first things students do in the course is to read a “short guide to scientific writing,” which Blackwell and her colleagues have put together. This guide addresses issues such as engaging readers, learning the conventions of scientific writing, and building an argument.

Soon afterward, Blackwell devotes a lecture to dissecting a badly written lab report. This activity helps students to understand more precisely what belongs (and what doesn’t!) in this form of writing.

Finally, when students write extended scientific abstracts based on their original experiments, they are provided with a whole book of sample scientific abstracts. This variety of sample abstracts lets students immerse themselves in the genre. They end up better understanding what is expected of a scientific abstract and how to write a successful one themselves.

4) **Conducting regular formative assessments.** Blackwell and colleagues elicited feedback from students throughout the course using a free online assessment model called SALG, Student Assessment of Learning Gains. They were able to elicit ongoing feedback about how various aspects of the course were working (peer review, for example). This feedback allowed them to modify the course to meet student needs as the semester progressed—as opposed to waiting to learn what students thought only after the semester had already ended. How did they motivate students to take these assessments seriously? They made completion of the online surveys worth 5% of students’ grades.

What, overall, did such assessment show? That 100% of students found their instruction in scientific writing valuable. Through their hard work and ingenuity, chemistry faculty have created a model for a first-rate writing-intensive, experimental science course. ♦
By Thomas Armbrecht  
Department of French and Italian

Looking for a fresh writing assignment that motivates students, uses new technology, and incorporates writing? I’ve found that a video-podcast assignment fits the bill in my French literature class.

For this assignment, students created ten-minute video podcasts that reviewed a French film. They played the role of commentators on a film, developed a script, and illustrated their analysis through film clips. Through this assignment, students developed their spoken and written academic French as well as strengthened their analytical skills. Before I knew it, they had successfully transformed Ebert and Roeper to “Hiver” and “Rocquefort.”

**Video Podcasting**

Video podcasting is the automatic downloading of audio and video files to a computer or iPod-like device. It’s often thought of as a great way to disseminate information to students. Many teachers use it to make their lectures available for oral assignments. What many don’t realize is that podcasting can be a great way to get students to produce writing as well.

When I first received a DoIt Engage grant to use video podcasting in my French language and literature classes, I saw it as a chance to get students to listen to authentic speakers and to test them on their oral comprehension. I soon realized, however, that podcasting helps students to produce language in both written and oral forms, since they can write dialogues to record and then submit them to me electronically.

**Staging the Assignment**

When designing any assignment that uses technology, I try to put pedagogy first. In other words, I always try to keep my teaching objectives in mind so as not to let the technology inadvertently become the focus of the exercise.

Keeping this mantra in mind, I set up the assignment by first discussing some sample film reviews with students. Together, we discussed what does (and doesn’t!) make a film review compelling. Then I taught the French vocabulary students would need to critique a film. They then used these terms and concepts to choose a film and to explain why they liked it and what aspects of it they were going to analyze. This exercise led into their first writing assignment, a short essay in French that they shared with their classmates, who provided peer editing and feedback.

We spent the middle part of the semester learning how to make video podcasts. I worked with LSS and Software Training for Students to create mini tech-seminars that taught students to use two easy free computer programs: Audacity and iMovie. Even though all my literature classes are in French, I decided to teach the technology in English, so as to keep technology issues from becoming the unwanted focus of the course.

In the third section of the course, students wrote a ten-minute (or five-page) dialogue that, working in pairs, they then used as a script for the video podcast. I responded to several drafts of their scenarios for both form and content. I then worked with them on the pronunciation of the texts that they had written. My aim was not only to improve their writing but also to help strengthen the connection between written and spoken texts.

**The Final Showing**

In the end, each student group succeeded in producing a ten-minute video podcast. Students combined their dialogues with still photographs of themselves and from the film. They also included a two-minute-long film excerpt that they analyzed in detail. While their French wasn’t al-

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ways perfect, students delivered genuinely insightful analyses of the films. And they did so with flair and humor that I’ve rarely encountered in other assignments. In one podcast, students used an animated snowflake (“Hiver”) and piece of cheese (“Roquefort”) as the commentators. Hiver and Roquefort went on to show how Laetitia Colombani, the director of the 2002 film A la folie...pas du tout, used color to convey messages not reflected in the dialogue.

Students seemed genuinely impressed to have created a piece they could “publish.” But they found more than just the final product gratifying. They also developed the critical apparatus to analyze films. This assignment managed to tap into students’ cultures, even as it opened them up to a deeper understanding of French film.

Moreover, I found that students’ use of French improved. Because of the creative nature of the project, they were willing to get into roles, adopt a voice, and take some intellectual risks—all in a foreign language. I will use this assignment in future classes as a way of encouraging students to write about something in which they’re interested, to develop a text during the course of the semester, and to share their writing.

Register for UW’s 2008 Teaching and Learning Symposium, from Wednesday, May 21, through Friday, May 23!

You’ll have a chance to join several workshops about teaching with writing:

**How We Can Best Serve Multilingual Writers**
Thursday, May 22
1-2:30 pm, 6176 Helen C. White Hall

**Designing Effective Library Research Assignments**
Thursday, May 22
2:30-4pm, 6176 Helen C. White Hall

**Responding to and Evaluating Student Writing**
Friday, May 23
10-11:30am, 6176 Helen C. White Hall

For registration information and to browse the 2008 Teaching and Learning Symposium program, go to the following URL: http://www.learning.wisc.edu/tlssymposium/

Hope to see you there!
MEET SARAH MC DANIEL,
NEW COORDINATOR OF CAMPUS LIBRARY AND INFORMATION-LITERACY INSTRUCTION PROGRAM

By Kate Vieira
Writing Across the Curriculum

Many faculty want students to learn to use the impressive library resources on the UW campus effectively. Yet as we know, students aren’t born with the skills they need to conduct research at the university level. That’s why the library has a wonderful staff who collaborates with faculty in teaching students how to develop the library skills they need. Coordinating this staff is Sarah McDaniel, the new coordinator of the Campus Library and Information-Literacy Instruction Program. In this position, Sarah leads faculty workshops, shares instructional strategies among librarians, teaches undergraduates to conduct research, and designs assessments of library instructional programs.

Sarah comes to us most immediately from California, where she managed library instruction and information literacy projects at the University of Southern California and at Berkeley. But Sarah’s roots trace back to Wisconsin. She grew up in Madison, going on to graduate from the UW-Madison with a degree in French. At UW-Milwaukee, she earned an MA in French and completed a master’s degree in Library and Information Studies. In addition to her new position here at UW, she is also the incoming chair of the Association of College and Research Libraries Instruction Section.

What brings Sarah back to Madison? She notes that the UW Library system is well known for integrating information literacy with general education courses, such as Comm A. She wanted to be a part of this effort to help students learn foundational research skills.

She is quick to remind faculty, however, that the library’s instructional work doesn’t end when students’ general education courses are completed. Information-literacy specialists at the UW are working on a project to think about what students need to know after the first year as they begin to do work in their major. They work with faculty to develop tutorials for students, customized web pages, and research-skills workshops.

Sarah and her colleagues often work with faculty to help design effective library research assignments. For the instructor who is looking to create effective assignments, she has four main pieces of advice:

1) Talk to librarians about what kinds of support they can provide.

2) Think about each step students must take to complete your assignment. Give students careful, clear instructions for completing these steps.

3) Be specific about the kinds of sources students should use. This detail is obvious to faculty but not to students!

4) And finally, elicit feedback from students along the way about what is challenging for them in order to help them be more successful.

If you are looking for more advice on how to create a successful and engaging library research project for a course you’re teaching, contact Sarah: smcdaniel@library.wisc.edu.

When Sarah is not working with campus librarians and faculty, she can be found in the yoga studio, on the bike paths, and with her thirteen-year-old daughter, Nita, and their dog, Copper.
Meta-Writing: The Cover Letter

Many faculty and TAs across campus find it's effective to have students submit a cover letter (also known as an "author's note") with drafts or a final version of their paper. In these letters, students answer questions like the following:

1) What is the main point of your paper?
2) What is working well in this draft?
3) What are you concerned about in this draft?

For a cover letter about a revised draft, faculty often ask about major changes a writer has made.

What are the benefits of cover letters?

- They help focus our written comments to meet students' specific writing needs.
- They help teach students to reflect on and talk critically about their writing.

To help students write thoughtful cover letters, faculty often share examples. Faculty who have the most success with cover letters make an effort to address students' writing concerns.