TEACHING WITH WRITING

THE OREGON STATE UNIVERSITY WRITING INTENSIVE CURRICULUM (WIC) NEWSLETTER
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Pre/Views by Vicki Collins

Top billing this month goes to participants in the Fall and Winter term WIC seminars. The introductory Fall seminar, in which participants studied the essentials of teaching with writing/teaching writing, included Rebecca Callison, Computer Science; Courtney Campbell, Philosophy; Scott Chadwick, Speech Communication; Larry Clement, Army ROTC; Richard Clinton, Political Science; Jennifer Cornell, English; Vicki Ebbeck, Exercise & Sports Science; Kate Farthing, Pharmacy; Gary Ferngren, History; Karen Hooker, Human Development and Family Sciences; Jon Keefer, Army ROTC; William Proebsting, Horticulture; Ruth Russo, External Visiting Scholar, Whitman College, Chemistry; Patti Watkins, Psychology; and Guy Wood, Foreign Languages and Literatures.

Winter term marks the first Advanced WIC Seminar, with eleven participants: Atta Akyeampong, Educational Opportunities Program; William Browne and Hal Koenig, Management and Marketing; Robert Lillie, Geosciences; Craig Machado, English Language Institute; Howard Meyer, Animal Science; Kathy Moore, Philosophy; Dave Ward, Naval Science; Martha Fraudorf, Economics; Jack Higginbotham, Nuclear Engineering; and Don Zobel, Botany. As part of our discussion on how to improve collaborative WIC projects, we had a guest presentation by Lisa Ede, OSU Professor of English and nationally known

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WRITING-TO-LEARN FOR THE SCIENCES: CREATING A DIALOGIC CLASSROOM

by Coral Scherma
MED, February 1995

The Writing-across-the-curriculum (WAC) movement, launched in the 1980s, has had a profound impact on the ways and the contexts in which writing is taught in North American universities. Briefly, WAC encompasses two major orientations toward university writing: writing-in-the-disciplines, which emphasizes writing within academic discourse communities, and writing-to-learn, which emphasizes the power of writing as a tool for learning (Kirscht, Levine, and Reiff 370-71). The two sides of the debate can be expressed as questions: Should the goal of writing-intensive courses be to induct students into the norms of discourse within their given disciplines, help them find a voice? Or should teachers aim to use writing to teach students critical thinking about the subject matter in their fields? These seemingly dichotomous views are the subject of much debate in the WAC circle. A closer examination of the issue, however, reveals that when properly used, writing-to-learn can accomplish both goals.

Clearly, both of these orientations toward writing are necessary. David Bartholomae writes, "Every time a student sits down to write for us, he has to invent the university . . . [he has to] learn to speak our language, to speak as we do, to try on the peculiar ways of knowing, selecting, evaluating, reporting, concluding, and arguing that define the discourse of our community" (134). By initiating students into the conventions and standards of

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their given disciplines, professors guide their students toward a sense of belonging to a community, help them find a voice with which to join the ongoing textual conversation in their fields. And by providing multiple chances for students to process, translate, and consider course content through writing, professors actively engage their students in "minds-on learning," encouraging them to stretch the boundaries of what it is they "know."

In the hard sciences, the need for a writing-in-the-disciplines orientation is plain. Students must be able to write abstracts, lab reports, and research papers as well as cite sources in ways that comply with discipline-specific guidelines. Too, so-called "real world" writing tasks similarly require that students be able to write clearly, concisely, accurately, and in recognizable formats. But how does writing-to-learn work in the sciences? Can scientific understanding be deepened or improved through writing? And can writing itself, especially informal, ungraded writing, help facilitate learning, finding a voice, and student empowerment? A number of researchers have looked into these questions, and the answer seems to be yes, a qualified yes. Not only can writing-to-learn help students master scientific knowledge, but it can also help them find a voice and participate in the building of that scientific knowledge--truly make the learning their own.

> *"From my own experience as an undergraduate and graduate student, I've found that by writing out my thoughts on a reading, field trip, teaching experience, or discussion, I discover what it is that I've learned from the experience as well as what it is that I haven't learned. Although it takes some practice and bravery, examining what we don't understand often leads us to a much better understanding than we thought possible. . . . Requiring students to keep journals . . . provides them with a chance to find a voice, extends an invitation into the discourse community."* *Coral Scherma*

Randy Moore has investigated the question of whether writing about science actually improves learning about science. His findings suggest that merely requiring students to write about biology does not enhance their learning; rather, students must come to an understanding of the ways in which writing can help them learn. Students must be taught how to use writing as a mode of learning science (217). Then and only then will their mastery of scientific course content improve through writing. He concludes that guided writing, including discussion of the principles of effective writing and student revision of papers based on instructor comments, is the necessary component to ensure improved student learning through writing. To the significance of student awareness of the writing-to-learn process, Julie Liss and Stephanie Hanson add the importance of students' orientations toward the writing-to-learn experience. Discussing their findings in a writing-intensive anatomy and physiology course, these researchers note that students who viewed course writing as a means to an end--a way to learn--ranked their writing-to-learn experiences positively and in addition saw themselves as being in control of their own learning. By contrast, those who viewed the assignments as an ends in themselves--products--tended to rank the experience negatively and to view the teacher as holding dominion over student learning. The authors conclude from these findings that "'minds-on' learning requires that the student actively engage in the construction of knowledge" (343).

One of the ways science teachers can be creative, critical, and pragmatic in design and implementation of writing-to-learn techniques is by promoting a view of knowledge as dialogically-derived rather than informational. John Bean tells us that while the knowledge base in the sciences is necessarily more informational than that of the humanities, "much of what is 'known' in the sci-

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PORTFOLIO ASSESSMENT IN A WRITING INTENSIVE ZOOLOGY COURSE

by Danielle Morrison
MED, December 1994

In Zoology 414, a writing intensive course taught by Dr. Chris Bayne, students submit a final portfolio that includes a collection of all their written work for the term "minus two." During an interview with Dr. Bayne, he posed the valuable question, "How can further evaluative comments on work that I've already seen and responded to benefit the students?" Clearly, he is concerned with providing students with formative evaluation that will enhance their learning. Yet after doing some initial research, I've expanded his question, asking, "What can be done with a writing portfolio to benefit students?" In other words, I've discovered that writing portfolios provide an opportunity for *more* than further comments by the teacher.

> ***"The portfolio belongs to both the teacher and the learner, and the goal of the portfolio 'is to cease finally to conduct learning in the service of evaluation and to commence evaluation in the service of learning.'"***

Before examining some specific ways of using writing portfolios in Zoology 414, we need to explore their defining characteristics. Kathleen Blake Yancey outlines three: portfolios are longitudinal in nature (i.e. they can include prewriting and drafts as well as final products), diverse in content, and collaborative in ownership and composition (102). As longitudinal collections of a student's work, portfolios allow teachers and students to identify and chart development and growth. As an open system including various samples of writing, they provide a means to evaluate how students have handled different modes of writing and to compare how a writer has dealt with different rhetorical situations. And as a collaborative venture, they give students an opportunity to select the content of the portfolio and to engage in self assessment. In keeping with these defining characteristics of the writing portfolio, Elizabeth Chiseri-Strater claims that portfolios can give students "structured categories for selection (to show growth, range, and depth)" (62). Consequently, portfolios allow teachers and students to evaluatework along a "horizontal line," offering a comprehensive, dynamic view of the writer's work rather than an isolated, static picture of it (Murphy & Smith 49).

How can the writing portfolio be used in a course like Zoology 414 to promote student learning? Currently, the writing portfolio that students submit for the course does not include a sample of students' processes in writing; rather, it is an assortment of products. Yet in order to examine depth in student writing, the portfolio might include at least one longitudinal collection of the student's work, i.e., at least one piece that includes all the work that led up to it. Thus, the professor, at the beginning of the term, would have to emphasize the process nature of writing and tell students to save all of their "rough work" for each assignment so that at the end of the term they will be able to select one of these collections to include in their portfolio. This way, students must be actively involved in the preparation and assembly of the portfolio throughout the entire term. By including a longitudinal collection of a piece of writing, both the student and the teacher gain a "window on the process" (Stern "Portfolios" 5).

Along with providing a sample of process, the portfolio should include a range of work. According to Sandra Murphy and Mary Ann Smith, "When portfolios are are designed to include samples of different kinds of writing, they demonstrate how effectively a student performs in different situations" (51). Indeed, the present portfolio configuration for Zoology 414 contains a full range of assignments including abstracts, summaries, letter, and a final essay. Having this wide

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variety of writing assignments, placed side-by-side allows students and the teacher to evaluate a student's relative strengths and weaknesses according to different rhetorical situations.

Finally, and perhaps most importantly, the portfolio should include an essay or letter in which the student reflects on his or her growth as a writer as shown in the portfolio. Catherine Lucas states that portfolios give students the unique opportunity to engage in "'reflective evaluation,' a kind of formative feedback the learners give themselves" (2). Through this evaluation, students investigate how they have grown as writers as well as "recognize and reiterate what they have learned" (Murphy & Smith 54). Yet in order for students to be able to self-assess, they must have the tools for evaluation. In other words, "they have to be taught the language and vehicles of assessment. The teacher should familiarize students with criteria for good writing . . . the teacher's goal should be to establish, announce, model, and use the criteria for evaluation" (Stern "Self-Assessment" 5-6). Students may already have the opportunity to engage in evaluation of other students' writing through peer review. The teacher might discuss how similar evaluative practice can be applied to their own writing. More specifically, students will need to be directed on what form their self-assessment should take with the portfolio. Perhaps they could be guided to write a cover essay accompanying their portfolio addressing some of the following questions: What standards do I use to judge my own work? What problems have I encountered in my writing throughout this term, and how have I dealt with these problems? How have I grown and changed as a writer? How is this reflected in my portfolio? How has my view of the writing process changed? How do I view myself as a writer within the discourse community of my discipline? How has writing been a means of learning for me in this course? How is my writing process influenced by the rhetorical situation?

The writing portfolio offers students a vehicle for deepening their understanding of themselves as writers and for learning how to improve in concrete ways. The portfolio can be more than a display of final products; it can include samples of process, various modes of discourse, and reflective essays by the students. Thus, the portfolio can provide an opportunity for more than summative evaluation; it can be a forum for formative and reflective evaluation. The portfolio belongs to both the teacher and the learner, and the goal of the portfolio "is to cease finally to conduct learning in the service of evaluation and to commence instead to conduct evaluation in the service of learning" (Lucas 11).■

PORTFOLIO ASSESSMENT IN A WRITING INTENSIVE ZOOLOGY COURSE
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ences . . . was once unknown and subject to theory, hypothesis, and empirical study. If science teachers can promote awareness of the historical development of knowledge--the original questions that gave rise to the currently accepted facts--they will be foregrounding what I mean by a dialogic or questioning epistemology" (143). Essential to the dialogic classroom are the following: student awareness of and positive orientation toward the learning processes in which they are participating as well as a safe environment in which students feel comfortable trying on new ways of thinking. But how is a teacher to invent this kind of class?

One avenue involves teachers furnishing students with various opportunities to engage course content via informal writing and discussions with their peers, thereby giving them a voice and a stake in the knowledge of the field. In the literature on using writing-to-learn in the classroom, two types of informal writing make a regular appearance: journal keeping and freewriting. Highly conducive to interactive classroom dialogue, both of these writing techniques encompass a spectrum of actual practices. Journal keeping has a variety of applications: students may keep individual journals on course readings, field trips, or labs; or they may start a class dialogue journal in which they ask questions, explore ideas, and respond to each others' queries and thoughts. In their journals, students find a safe environment in which to speculate on what they hear, see, and experience. Alfred Powell, who requires that his students keep a "lecture notebook," recognizes the power inherent in translating what one hears in class into one's own words: "The lecture notebook also serves as a mechanism for asking my students to interact with Organic Chemistry and its concepts through writing in a limited, personally 'expressive' sense" (416).

For those students who feel unhappy with the thought of journal writing--"I can't get started! What am I supposed to say?"--instructors may offer a list of heuristic questions, for example:

- How did what you read/saw/discussed challenge what you know about the subject?
- Is there a part of what you learned that resonates with you? Explain.
- How does this relate to the other things you've learned in this or other courses?
- What didn't you understand? Ask questions.

(Adapted from Dr. Vicki Collins WR 511 Guidelines for Reading Journal)

In an integrative approach to journaling, Robert Yinger and Christopher Clark offer a system that incorporates writing, reflecting, and discussion. Called "systematic reflection," their process involves three separate processes: intensive writing, re-reading and reflection, and dialogue with another regarding one's journal entry (27-29). First, in an approach borrowed from Peter Elbow's *Writing Without Teachers*, students are asked to freewrite on a given topic for ten minutes without stopping. Next, they re-read what they wrote and reflect upon the thoughts contained within, culling those ideas that are useful and winnowing out the ones that do not appear to be "immediately useful." In this stage, the writer makes a list of those words, phrases, and ideas that seem pertinent or powerful. This part of the process allows the writer time to "make sense of those ideas, see relationships among them, and perhaps organize them" (28). In the third part of the systematic reflection sequence, the writer talks about his or her journal entry to another class member (who has written on the same prompt) for two or three minutes without being interrupted. After the student's partner does the same, they discuss the ways in which their thoughts converged or diverged on the topic. The authors note that listening quietly to another student's ideas can be a good learning device, "as important as talking" (29).

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Finally we come to freewriting, bulwark of process writing. Professors all across the academy are harnessing the strength of freewriting to loosen students up, get them to think on paper, stimulate class dialogue. Dara Dunn, musing on integrating freewriting into her psychology courses, advocates it as a way to "[have students] quickly generate pages of material . . . , introduce them to the experience of reading their writing to others . . . , [and] summarize what they hear without making any evaluation of it" (7). By requiring students to read aloud and discuss their freewrites, not only is Dunn able to help students generate ideas and become used to the process of peer feedback, but she is also able to stimulate class discussion: "I have also found that ten minutes of freewriting at the start of a class can be an effective way to promote discussion, particularly when the material is unfamiliar of technical" (10). To provide a safe learning environment in which to share writing, Dunn arranges students into small groups of two or three, thus minimizing the fear of speaking out or reading one's freewrite aloud in class.

The current controversy within Writing Across the Curriculum--writing-in-the-disciplines versus writing-to-learn--may be reconciled partly by recognizing the potential of writing-to-learn as a method of empowering students. By actively and critically engaging course content, students find the voices they need to join the dialogue within their discourse communities, both in the classroom environment and in the academic community. If the primary concern in the writing-in-the-disciplines movement is to induct students into the discourse community of their chosen fields, then teachers need to provide them with the writing tools for learning, owning, and shaping knowledge in those fields. Journal keeping and freewriting are two techniques used successfully by professors dedicated to extending those invitations to their charges. ■

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WIC Director Attends International Writing Across the Curriculum Conference

On February 2-3, WIC Director Vicki Collins attended the interantional WAC conference in Charleston, South Carolina, where several hundred participants from across the US, Africa, and South America came together to discuss issues of teaching writing in all disciplines.

Vicki Collins presented a paper entitled "Department Retreats that Advance Writing: Conversations that Matter." Her talk focused the various options available to academic departments wanting to work on writing issues and curriculum in a retreat format. Examples were drawn from OSU writing retreats held by departments of Animal Science, AIHM, and Naval Science, and the College of Pharmacy in Portland. (Copies of the presentation handout "Planning a Department Writing Retreat" are available from collinsv@cla.orst.edu) ■

BOOK REVIEW:

Richard Bullock. *The St. Martins' Manual for Writing in the Disciplines: A Guide for Faculty.* New York: St. Martin's Press, 1994. 76 pages. $2.00 ISBN: 0-312-09573-2.

Reviewed by Sue Vega-Peters

Richard Bullock has designed his manual as a reference tool, providing explanations of the principles of writing in the disciplines as well as practical strategies for applying these principles in the classroom. Bullock's manual can either be read cover to cover, or be dipped into as necessary. Because of the brevity of this guide, Bullock does not go into detail about issues of writing in specific disciplines, but instead provides a list of teacher resources in Chapter 2, "Examining the Writing in Your Discipline."

With most chapters no more than 3-4 pages, Bullock's descriptions of principles, techniques, and practices are concise and straight-forward. In "Making Time for Writing in Class," Bullock

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scholar on collaborative writing. Seminar participant Bob Lillie shared his sequenced writing assignments in Geology, and Bill Browne, College of Business, presented his sequenced memo assignments. Jack Higginbotham, Nuclear Engineering, spoke about his successes with journals in Radiation Safety. Steve Stoynoff, ESL, offered teaching strategies for non-native speakers of English in WIC courses. In addition, the seminar addressed specific issues and problems identified by the experienced WIC teachers in the group.

The featured articles in this issue, "Writing-to-Learn for the Sciences" by Coral Scherma and "Portfolio Assessment for a Writing Intensive Zoology Course" by Danielle Morrison, were written as part of a collaborative project on Writing Across the Curriculum in WR 511, Writing for Teachers, during Fall term. Coral and Danielle, graduate students in ESL, became "writing consultants" for WIC teacher Christopher Bayne in the Department of Zoology. After interviewing Dr. Bayne and observing his WIC class, Coral and Danielle identified questions Dr. Bayne had about teaching with writing and prepared consulting reports for him. Other WIC teachers participating in this project were Jack Higginbotham (Nuclear Engineering), Trischa Knapp (Speech Communication), Bill Lunch (Political Science), Patti Watkins (Psychology), Becky Warner (Sociology), and Mark Feigner (Marketing). ■

REMINDER

Proposals for 1995 WIC Department Development Grants are due Friday, March 10, 1995.

AHEAD FOR SPRING TERM

WEEKLY
WIC Brown Bag Lunches

Faculty interested in WIC and teaching with writing are invited to bring a lunch and gather for brown bag lunches on during Spring Term. Feel free to enter late or leave early as your class schedule dictates. All lunches will be in Waldo 121. There is a Coke machine nearby, so drinks are available (though not free).

Thursday Brown Bags 12:30 - 1:30
April 6 - What Students Learn in WR 121 - Chris Anderson, Comp. Director, Eng.
April 20 - Teaching Writing of Research Data: A Good Assignment - Howard Meyer, AnSci.
May 4 - TBA
May 18 - TBA

Friday Brown Bags 12:00 - 1:00
April 14 - Journals as Ungraded Writing - Jack Higginbotham, NE, and others
April 28 - Teaching Peer Response to Drafts
May 12 - Leslie with a Lead Pipe in the Library: Writers Struggle with Research - Vicki Collins, Eng.
May 26 - TBA

WANTED: Presenters for Brown Bag Lunches

If you have a writing assignment or strategy that works, or a writing issue you would like to share at the Spring Brown Bag lunches, please contact Vicki Collins 7-3711 or email collinsv@cla.orst.edu. The goal is to have at least one presenter per meeting. Presenters are not asked to facilitate the entire meeting, unless they would like to do so.

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points out that if class time were slightly resturctured, 150 minutes of writing could be fit into a term--as three entire class periods, a week-long unit, or five minute sessions each class. "Designing Assignments that Get Students Writing" offers techniques to elicit writing including requiring rough drafts of papers 2-3 weeks before the final is due for comments and revision, assigning papers in stages, and asking for written responses to daily reading assignments. "Using Informal Writing Activities to Help Students Learn," explains activities for the different stages of paper writing: listing, looping, clustering, analyzing purpose and audience, and researching and organizing, as well as writing-to-learn activities such as Five-Minute Writing, Question Box, and Particle/Wave/Field analysis that "ask students to examine ideas from multiple perspectives, to stretch beyond the current limits of their thought." Bullock also includes chapters on "Helping Students with Formal Writing Projects," with inventing, drafting, revising, and self-assessment activities; and "Responding to Student Writing" with strategies for responding to all stages of writing.

Bullock's guide is accessible and practical for discovering more about writing in the disciplines and provides clear techniques to use in the classroom. To order, write:

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175 Fifth Avenue New York, NY 10010