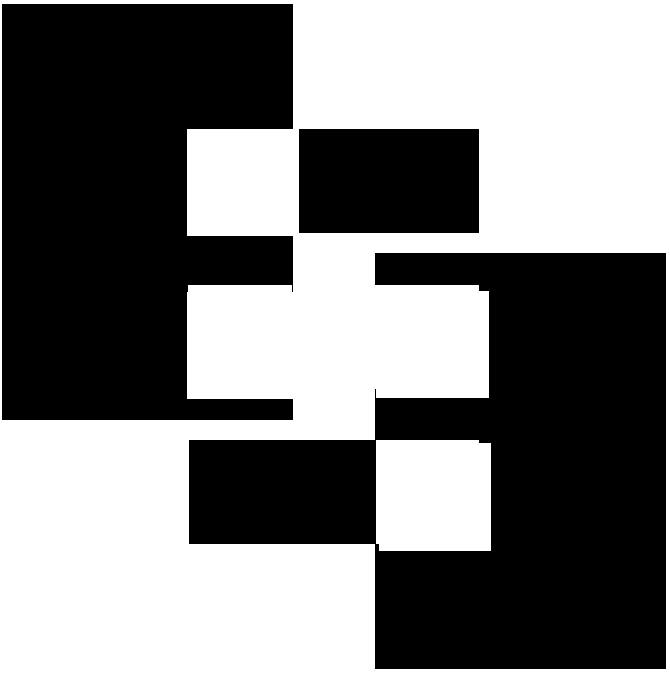
Language and Learning Across the Disciplines

A forum for debates concerning interdisciplinarity, situated discourse communities, and writing across the curriculum programs.



(Re)Learning Gender through Expressive Writing

Writing to Learn, Assessing to Learn

Student Perceptions of WAC

Dealing with Resistance to WAC in the Sciences

The BYU Advanced Writing Program

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In This Issue...

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Letter from the Editors

Sharon Quiroz
Michael Pemberton

In this issue of *Language and Learning across the Disciplines* we hear much of students' voices, directly or indirectly. Lyn Kathlene, a political science teacher, writes of inviting students to speak electronically in "(Re)Learning Gender through Expressive Writing and Critical Reflection: Electronic Discussion groups as Idea Mediators among Students." In what she calls "Newsgroup Learning," Kathlene provides students with space to work through, in their own words, the gender issues that are often so new to them, and threatening. Judy Halden-Sullivan's article, "Writing to Learn, *Assessing* to Learn," critiques the standard checklist device so many of us use in WAC workshops. She argues that the checklist does nothing to help students find their own voices in the disciplinary context, while other kinds of assessment devices come closer to the writing-to-learn philosophy that informs much of WAC activities. In "Student Perceptions of the Value of WAC," Joan Hawthorne reports interviews with students who have taken WAC courses to give a sense of how they feel about them.

The last article focuses on voices from across the faculty: "Dealing with Resisance to WAC in the Natural and Applied Sciences." The article is multiply authored by faculty committed to the University of Missouri's Campus Writing Program, headed by Marty Townsend. In it, Townsend, Martha D. Patton, a consultant to natural and applied sciences faculty, Aaron Krawitz from mechanical engineering, Kay Libbus from nursing, and Mark Ryan from fisheries and wildlife, tell the stories of their involvement with WAC, and of faculty resistance from faculty's point of view. The article includes examples of assignments revised to make them writing intensive.

And we have another program description: Kristine Hansen has supplied us with a description of the Advanced Writing Program at Brigham Young University. Again, we invite contributions to this regular section of the journal.

(Re)Learning Gender through Expressive Writing and Critical Reflection: Electronic Discussion Groups as Idea Mediators among Students

Lyn Kathlene
University of Nebraska at Lincoln

When I signed up for this class, my counselor (who is a woman) told me that I shouldn't have to worry, that it wasn't a "male bashing class." I wasn't worried at all but this just reveals the attitude that society has toward classes like this.
(Quote from a male student, 15th week of the semester)

Over the last several years, I have come to the realization that teaching a class that challenges the basis of students' fundamental socialization *must* incorporate pedagogical techniques specifically designed to help students reconcile these "old" and "new" views of the world. This is especially crucial as multi-cultural elements are incorporated into core curriculums in our colleges and universities. For example, with the advent of a revised core curriculum, my lower division gender course (Women, Politics, and Public Policy), which had been an elective, became one of a dozen gender courses that could fulfill the new gender requirement. The course, which had been populated by students "predisposed" to the course material through "self-selection bias" underwent a major transformation when it became part of the Liberal Arts core. Suddenly, I was faced with sections twice as large, populated with mainly skeptical (and sometimes a few hostile) students now predisposed to resisting the theoretical and analytical models of gender that serve as an interpretative basis for understanding women's political roles and policy issues.

Even before the course moved out of its elective status, I required students to keep journals responding to issues raised in the course. My experience with journals initially taught me several important lessons. First, writing challenges most students to think more critically. Second, most students struggle with similar issues. Third, many students use journals to engage in a dialogue (with me) as they search for answers.

Fourth, I found myself acting as an idea mediator between individuals and the class at large; yet, I had very little success in generating classroom discussions on the very topics that were clearly salient to many students.

About a year after the course became a core requirement, I replaced the journal with a computer "discussion group" for two main reasons: (1) the larger size of the class made weekly journal reading and grading simply too time consuming; and (2) even more than in past years students without prior background or interest were struggling with core concepts. There was neither enough time for me to read and individually respond to each student's inquiry nor time enough in class to address and debate these perspectives among the students.

Pedagogical Goals

Students now write and submit personal reactions to each other electronically (see Appendix A for assignment details and Appendix B for technical details). Every student in the class reads and responds to any entry that captures their interest, or they write about an entirely new topic. This *written* peer interaction has advantages beyond classroom discussions. When we write, we think more deliberately and critically than when we speak (Emig 1977; Fulwiler 1982; Sills 1990). Additionally, a careful, reflective, and interactive mode of communication provides students with (1) the opportunity to evolve, over time, in their thinking about a topic; (2) the ability to respond to topics brought up in class whenever they are inspired or motivated to do so (Hall 1993); (3) the realization that they are not alone in their perspectives and interpretations; and (4) the ability to find peers who can relate to their concerns. Importantly, the audience for this writing component are their peers, not the instructor, and receiving credit for the postings is based upon criteria free of instructor judgment of the content (see Appendix A) thereby allowing students to take intellectual risks (Martin, et al. 1976). The pedagogical goals for the newsgroup assignment are listed in Table 1.

As one of six types of writing assignments in this course,[1] the newsgroup serves a very specific learning and writing purpose: to allow students a forum for *expressing their opinion* (see Fulwiler 1982 for descriptions of different writing purposes). In order to grapple with material that challenges a student's beliefs about the world, especially when the issues touch their personal world, I have come to believe that students must be afforded an outlet to express their opinion in order to form higher order thinking skills (also see Britton 1970; Martin, et al. 1976). And, after numerous conversations with colleagues over the years, I am convinced one of the most common substantive writing problems we encounter with undergraduate students is the inappropriate use of expressive writing.

For example, too many times students incorporate their personal opinions in analytical writing assignments — seemingly unaware of the difference between stating their opinion versus providing supported arguments. Computer newsgroups — or any sustained expressive writing format (e.g., journals) — serves to address both problems. Encouraging students to engage the readings, lectures, videos, and class discussion from a personal standpoint allows them to confront issues and concepts that cut at the core of their socialization **and** legitimizes this important struggle (also see Gannett 1992). This expressive writing is crucial for struggling and coming to terms with new ideas (Fulwiler 1982) and when this type of writing is directed at peers, who are struggling with the same issues, it serves as a written equivalent to everyday speech. Moreover, I would assert that because the computer newsgroup is interactive (though time-delayed), it actually mimics conversational speech thereby providing a natural inclination to combine purely expressive writing that is personalized, implicit and self-revealing with transactional writing that is public, explicit and product-oriented (Britton 1970; Fulwiler 1982). It is this conceptual movement across the writing continuum (see Britton 1970, p.174) that helps build the foundation for critical thinking (Martin, et al. 1976; Fulwiler 1982). At the same time, forcing expressive writing into a specific writing format helps the student begin to distinguish between opinion, assertion, and grounded argument, thereby providing at least one important conceptual tool necessary for writing papers free of unsupported opinions. Throughout the semester, I stress the importance of engaging the literature **first** from a personal standpoint and **second** from a well-reasoned and theoretically and/or empirically grounded standpoint.

Table 1
Pedagogical Goals for COMPUTER NEWSGROUP Writing Assignments

Writing Purpose:

To develop expressive writing skills through
- responding to course content (readings/lectures/videos)
- questioning information/concepts
- connecting course content to other courses/own life

Class Purpose:

To create more communication among the students
To develop peer learning
To engage students in active learning outside the classroom
To improve small group classroom discussions/learning

Course Purpose:

For students to help each other reconcile old and new information

Perhaps, the most important feature of the computer newsgroup is providing a forum for interactive peer learning made possible through its design as a student-centered activity (Beauvois 1995).[2] In fact, I have discovered that through this forum students "teach" each other, especially through the sharing of personal stories, on the very topics that are often perceived to be "touchy" or controversial subjects (e.g., gender socialization that constructs and privileges masculinity over femininity). While class discussion often serves a similar purpose, the newsgroup has additional advantages in that it allows *all* students to participate (Hall 1993), provides enough time and space to say as much or little as desired, and allows students to feel free to personalize the issue. In addition, students who would normally not talk in class become known to each other through the newsgroup (even if only by name), thereby creating class intimacy (i.e., the newsgroup helps somewhat to lessen the detachment that naturally forms in larger classrooms).

Descriptive Analysis of Newsgroup Learning

As previously discussed, interactive expressive writing forums such as the computer newsgroup serve a number of pedagogical purposes. My latest interest, however, as I have read and monitored the forum over the last four semesters, is to examine how students relate to concepts introduced in the course, respond to differences of opinions, and present past personal stories as ways of (re)learning (see Jarratt 1991 for a discussion on productive conflict in feminist pedagogy). The remainder of the paper will examine several different topics to illustrate how students engage one another.

Feminisms: In my lower division gender politics course, early in the semester I introduce students to what I label as "enduring issues," which are three main themes that underlie the politics and policies of the women's movement in the United States. These three issue areas are "Equality versus Difference," "Gender versus Sex," and "Conceptions of Feminisms." My initial pass on feminism is quite unorthodox. Rather than describing the various branches of feminism (e.g., liberal, radical, Marxist, etc.), I start with the assumption that most students have, at best, vague and mostly negative stereotypes of feminists, therefore by association, feminism. "Conceptions of Feminisms" introduces students to three views loosely representing feminism, anti-feminism, and what I call post-feminism. The following readings are used:

Feminist selection: Kamen, Paula. 1991. "Connections to the "F" Word." (chp.1) *Feminist Fatale*. New York: Donald Fine. pp.23-53.
Anti-Feminist selection: Schlafly, Phyllis. 1986. "The Positive Woman."

Barber and Kellerman, eds., *Women Leaders in American Politics*. Englewood Cliffs, NJ:Prentice-Hall. pp.154-164.

Post-Feminist selection: Paglia, Camille. 1992. "The Big Udder." *Sex, Art, and American Culture*. New York: Vintage Books. pp.86-90.

On the day of class discussion, each student is asked to write down on 4x6 cards "three essential features" of each "type" of feminism.[3] The characteristics are then listed on the blackboard under the three categories as students offer up their ideas. A class discussion ensues. After class (during the next few weeks), the computer newsgroup enters into the learning process. Students begin initiating the discussion on the three conceptions of feminism by posting original messages and/or responding to other students' postings on the topic.

Following are selections that illustrate how students think about and come to understand concepts of feminism via course readings and class discussion. Note that many of these entries are highly personal in that students are reacting to the material. As I argued earlier, opinion-laden expression is not only inevitable but necessary so that a student can make the issue their "own" and move beyond the personal dimension. The next set of quotes are typical examples of the postings early in the semester as well as an early grappling with a new issue:

Janis writes:

> Many of the attitudes about feminism expressed in Kamen's article I have heard before from friends or other people I know. Most of my guy friends view feminism as being male-haters and bad, while my girlfriends are split. Some are proud to call themselves feminists and others just try to pretend it doesn't exist. I have a problem with this....I strongly feel if more women call themselves feminists, positive connotations will start to develop....After all, feminism is so broad, the only restrictions to it are the ones that people make for themselves. So go out and start calling yourself a feminist and be proud of it!

Shannon replies:

> I'm with you all of the way. Before I took this class I was one of those people who said, "I'm not a feminist but..." Now that I see what feminism truly means and how much these stereotypes hurt all women, I can safely say I'm a feminist.

Renee says:

> My mother feels feminists are women who can't get a man and associates the word somewhat with amorality. Just a few days ago she mailed me an article detailing how women are really nicer, more moral people than men, and how the

> feminist movement was really hurting the world because it was dissolving morality. I cringed. I now believe feminism entails equality (social, political, etc.) for men and women. Having the opportunity to choose one's own destiny or path in life is important for all people, not just women.

Janis appears to have been exposed to the tenets of feminism before and this familiarity probably accounts for her public pronouncement based on personal considerations to "…go out and start calling yourself a feminist…." However, both Shannon and Renee are at an earlier stage in their exposure to feminist thinking and contain their writing within the expressive mode as they begin to try out the ideas for themselves.

Of course, feminism does not resonate so positively in all students. The following excerpts demonstrate the use of expressive writing to create a conversational space of sharing and learning as two students find a way to connect their respective experiences.

Ann writes:

> I have found myself to be neither a feminist or a post-feminist. It surprises me because prior to our class discussion, I thought I was. I have found myself to believe strongly in the tenets of Anti-Feminism. I believe the status-quo is comfortable and not in need of change. I fear my boyfriend/ future husband will leave me if I am or try to fight for civil rights for women openly and publicly....I have been nurtured and raised as a child to believe that men are superior and they as intellectuals can be the only ones to handle money, contracts...and capable or aggressive enough to be in the business world. I would probably be Schafly's best friend in her anti-feminist campaign. This fact, however, scares me and angers me. I feel too comfortable in this acceptance that men are superior and that my only choice in the future is to be a housewife. I still believe in my anti-feminist tenets but I'm trying hard to escape them.

In response, Deborah says:

> So what do you intend to do about this? What types of things will you teach your children? My family was always just easy going but my ex-fiancé's family was totally biased against women. I always told myself that I would never let my kids be subjected to this crap, but with his family they would have felt it. I am now searching for the perfect husband that will know that we all are equal. I am searching for the father of

> my kids to raise our children in an environment like mine at home. Don't you think you deserve this, too?

It appears that Deborah has personally experienced the anti-feminist attitudes that Ann is struggling to overcome. Deborah begins by confronting Ann with the dilemma Ann will face in her desired role as a traditional housewife/mother (here "traditional" refers to the patriarchal attitudes and values associated with being a housewife/mother rather than the role itself). While the response has undertones of being judgmental, by Deborah sharing her experience of an ex-fiancé's anti-feminist family and offering up her own future goals (that align with feminist tenets), she provides Ann with both a supportive reaction and an alternative scenario to contemplate. An interaction that did not and would not happen in the classroom if for no other reason than Ann rarely speaks up in class.

While some exchanges mimic a personal conversation between two people sharing their experiences in life, as Ann and Deborah's postings illustrate, other peer discussions are a combination of expressive and transactional writing – a shift to public discourse via the assertion of a personal opinion as a directive to others. Take another look at a set of exchanges on Anti-Feminism.

Nicole writes:

> I agree with Phyllis Schlafly...."The Positive Woman looks upon her femaleness and her fertility as part of her purpose, potential, and power. She rejoices that she has a capability for creativity that men can never have." It is time for women in our society to stand up and be proud of their roles as a female without always feeling offended.

Elizabeth agrees:

> I, too, feel that I don't always want to be equal to a man in the sense that I do enjoy some of the traditional things that take place in a man and woman's roles in society such as him opening the door for me....Even though I do want to be able to do things such as getting equal pay in jobs and trying different things, I do feel secure enough with who I am to be feminine.

And so does Alison:

> After reading Phyllis Schafly's view of feminism, I have concluded that I agree totally with her. I am an anti-feminist. I believe that God created differences between men and women and we are to just accept them and I also believe that women should be grateful for these differences.

Here we see Nicole and Alison initially responding to the articles from their personal experience and values but moving toward the transactional space as they de-personalize their emotive response and frame it in terms of values that all women should hold. Elizabeth, on the other hand, remains in the purely expressive mode. It is important to note, however, that none of the women have moved far from the expressive center, as even the assertions come from personal experience rather than structured argument based on multiple evidence – external as well as internal.

The first strongly transactional writing appears as counter arguments offered to the above subset of postings. This posting is done by a male.

Ian writes:

> The ideas that you say you agree with in "The Positive Woman" — that men and women are not created to be equal and each has distinct purposes — is not really the point that sets anti-feminism apart from the other conceptions of feminism. In fact, many of these "ideals" can be found in the article "The Big Udder" [Paglia] which outlined our view about post-feminism. Do you agree with some of the anti-feminist beliefs about gender roles in a family, the business world, and politics as well? I personally agree with the idea that men and women are not "meant" to be equal, but I find the ideas that women are suppose to keep men happy at any cost a little dangerous.

Amy then adds:

> I agree with Phyllis Schafly that women are biologically different from men and that women should celebrate these differences. I do not believe though that these differences require women to be docile, subservient, and weak. What I basically get from this article was that women are less intelligent, less aggressive, and more emotional than men. I do not believe that this is true. Women will continue to be treated unequal if this stereotype persists. What makes it worse is that it is a woman that is perpetuating this idea. Women will never be able to rise up if we buy into this stereotype.

By the end of the semester, students were still coming back to this topic but with less and less purely expressive writing and more a combination of expressive and transactional writing that increasingly utilized external sources to support their assertions. For example, Stephanie writes:

> I respect the fact that everyone is entitled to his or her opinion; however, I must say that I completely disagree with these views of feminism. Have you read "The Handmaid's Tale?" I think your views may change somewhat after reading it. My fear of the anti-feminist viewpoint (that women should be the only ones to have to take care of the children) is that motherhood can get in the way of allowing women to pursue their own personal goals. So my question is where do personal, private rights and freedoms for women come into play in the anti-feminist position?

As was typical of postings on a subject that generated a lot of interest, students held strong opinions and continually revisited the topic throughout the semester with the intent of not only grappling with the issue themselves (expressive) but convincing others of their ideas (transactional). The previous quote is a good example of how expressive writing moves farther into the transactional space as students acquire more knowledge. While it is still opinion-based, Stephanie is making connections to literature (the novel we read during the last week of the semester) to bolster her opinion (not merely making assertions based only on personal experience), demonstrating that opinion and course material are being integrated to form an initial basis of an analytical argument. It is at this juncture that students are able to move from mere personal reaction (internal struggles), to public discourse (externally directed assertions), to grounded argument thereby forming the elementary building blocks of critical thinking (Fulwiler 1982).

Sometimes students only tangentially address the course material, focusing instead on personal experiences as examples of the topic under discussion. Not surprisingly, stories from high school days are common and usually generate many responses. For example, Renee begins by writing:

> Before I entered this class I was told that feminism was a bad thing. I was mostly told this by older male teachers at my high school that basically believed women were to stay at home and that if they worked then they should only do so if their husbands aren't able to....I think that our society should stress in the school systems that women can do anything they want to and if they want to stay at home then that is fine but if they choose to work, that's fine also. The bottom line is that women should know they have a choice.

Stephanie adds:

> I must say I am extremely disturbed at how I have been reading in several people's entries that their male high school teachers often made anti-feminist comments. Through reading these entries, my memory was spurred as to how some of my male high school teachers, too, would occasionally make slanderous comments about women. Comments such as "females will never be President because they suffer from PMS" to "don't wear short skirts to class because it might excite the boys and you might be putting yourself in danger" are appalling! Yet, I remember hearing these cutting comments on a weekly basis. In high school, I was too uneducated to realize the error of these statements and pretty much accepted them as fact....I think that over Christmas Break I'll go over to my old high school and give the administrators a piece of my mind — and encourage them to require "PC" classes for all of the high school teachers.

Chris (a male) disagrees:

> I guess I couldn't help but get a little frustrated while reading your entry. Once guys get to college, they understand how a woman should be treated, and they act accordingly. If you went back to you high school and said something about being (PC) you will make the whole issue worse.

Which generates a quick reply from Annie:

> Comments from male chauvinist teachers should not be accepted. Teachers make a big impact and they need to remember that.

While these exchanges do not focus directly on the readings or class discussion, integration of the material (e.g., feminism) and subsequent learning (i.e., re-evaluating prior experiences with a new, albeit very underdeveloped, conceptual lens) is clearly taking place as the students (re)consider their lives in high school through expressive writing.

Students Judging Instructors: Approximately halfway through the semester I provide the students with a handout of statistics on how students evaluate their instructors based, in part, on their gendered expectations of instructor behavior and competence. The statistics report a meta-study of 50 studies and demonstrate over ten ways that gender affects these evaluations. These statistics and class discussion should be but one more way to demonstrate the insidious nature of gendering — a topic that is introduced early in the semester as one of the "enduring issues" and reinforced weekly through readings and discussion. Of course, the policy implications of gendered evaluations force students to recon-

sider, again, the social bases of affirmative action policies, and theorize why women's wages continue to be less than men's even after controlling for occupation, educational level, and seniority.

Of all the job-related research we examine in class, the information on student evaluations of teachers hits closest to home. These statistics are talking about them — or not, as most students argue vehemently during the class discussion and afterwards on the newsgroup. In fact, this is the topic that generates the most passionate and defensive writings. The first newsgroup entry on this topic was posted the day after the lecture. Laura writes:

> Hearing the statistics on how female instructors were rated by their students versus how male instructors were rated by their students really upset me. First of all, I have no predetermined notions about how a female instructor should be or how a male instructor should be. The way I judge my instructors is fairly simple: Does he/she know what she is talking about, and does he/she explain his/her knowledge in a way that I can understand? If the answer is yes, then the instructor is going to get a good evaluation. It doesn't matter if the instructor is a man or a woman or a dog. If they can teach the material, that's good enough for me....So before anyone starts looking up my address to come over and kill me in my sleep, I'm going to end by saying it's what you learn, not who you learn it from that matters.

This posting spurred seven additional postings within 48 hours. Four of the seven agreed with Laura, though there were interesting qualifiers that students began to incorporate into their thinking about the issue. For example, one student suggested that none of "these statistics apply to Science/Engineering related fields" because she perceives the natural sciences as "fact-based" knowledge (unlike the "let us discuss it liberal arts classes"). Interestingly, the notion of the course content as being "objective" leads students to believe that gender is absent — not only in the course material but in their own subjective experience of the class.

There was one dissenting opinion that attempts to persuade (via transactional writing based solely on opinion) the other readers that their personal opinions are blind to the reality of the workplace.

Janis writes:

> I completely disagree with you. How can you say you have "no predetermined notions" on how a male professor

> should act versus a female professor? Are you implying that existing ideologies held in our society do not affect your opinions or judgments? Since you don't have any predetermined notions on sex, does this mean you would not be bothered if your male professors taught you in dresses and told you about his family as long as he gave you all the information you needed to know to pass the exam? ... My point is teacher evaluations may seem insignificant to you now, but just wait until you are in the workforce, working in a male dominated field because the people that are giving YOU evaluations aren't YOU! This means they may not be aware of underlying stereotypes or experiences they have had with women before and how those stereotypes unconsciously will show in their evaluations of you.

The postings that followed Janis' demonstrated a reflective quality. A perspective that neither completely accepted nor rejected the statistics presented in class but rather began to consider the possibility that while such evaluative outcomes were possible ("The data is in, and I can't argue with what the results show...") it was the interpretation of the data that was important to consider. At this point, students moved to integrate class material with the hypotheses that type of class (natural science versus social science/humanities) was an important factor in how gender was played out. Rather than argue gender was absent in one arena but not the other, Renee dissects how gender is present in both but gets played out differently:

> ....I think lower ratings received by professors who are not self-disclosing are a function of the subjects they teach, and that this would hold true for male and female professors (though likely to a lesser degree for men), meaning that male humanities professors who are not self-disclosing would likely be rated more negatively than male math professors who are not self-disclosing (as has been found for their female counterparts)....

By the end of the week, students were writing about and reading from each other more nuanced ways of understanding the gendered nature of performance evaluations. What began as outright rejection of the material (students who spoke up in class overwhelmingly disputed the statistics), was transformed by the students themselves into a problematic phenomenon that was both present AND absent in varying degrees depending upon specific contextual factors.

Student Evaluation of Computer Newsgroup

Interestingly, of the six different WAC methods I utilize in the course, the newsgroup is the most controversial. I have spent some time trying to interpret student ratings and written evaluations, leading me to conclude that three factors are mainly responsible for the mixed reaction. First, some students are not comfortable with more advanced features of computers (i.e., non-word processing functions) and the relationship between discomfort and use seems to be particularly salient for the women students (Clawson, Choate, and Rockeymore 1998). Second, despite the construction of the assignment as "writing to each other" (not the instructor) a small group students are uncomfortable expressing their opinions as reflected in their stilted postings. Finally, the size of the class is the strongest predictor of ratings for all the WAC assignments. Nevertheless, the overall ratings and comments demonstrate that for most students the method is effective in meeting the stated goals and objectives as well as providing an engaging writing method.

Before I present the student evaluation ratings, I want to address the themes identified above. First, with regards to computer literacy, it continues to be the case, even in a large research university, that a small but significant proportion of Liberal Arts undergraduate students are wary and uncomfortable with computers. These students are frustrated by the technology and tend to see the newsgroup as a waste of time because they "have to make a special trip to the computer lab" where, they believe, "the same thing could be accomplished by classroom discussion" without the "headache of posting and retrieving messages." Since the first time I incorporated the computer newsgroup into my course (in 1994), I have worked with the lab technicians to create more user friendly formats. At this point, the technology and its availability to our undergraduates have greatly simplified the process. Additionally, in place of one lecture day, students are required to attend a training session in the lab and demonstrate competence (post and reply) in the system before leaving (otherwise, they must set up an appointment with me during that week to solve their problems). Advances in software and changes in class instruction have lead to higher usage and less frustration; yet, there remains some resistance. Clawson, et al. (1998) discovered a gendered dimension to this resistance: women, more than men, need to feel "comfortable" with the computers in order to use them suggesting additional training should be available for students who lack familiarity with computers.

The second observation that not all students want to express themselves is more interesting from a pedagogical standpoint than is the problem of student discomfort with computers. These peer interaction anxieties could be driven by either the specific content of the course or,

alternatively, these students would find it difficult to engage with their peers regardless of the subject (i.e., on less controversial topics). Written comments referring to things like "the class became more and more feministic [sic] as the semester progressed" suggests to me that the former is a more likely explanation. Yet, this is precisely the reason I instituted the newsgroup so students could begin to work through these difficult social and political issues. As I have illustrated in the main body of this paper, confronting, learning, and sometimes even resolving internal and external conflicts with regards to the controversial topics did happen on the newsgroup. It just did not happen for everyone.

Third, just like student evaluations of courses more generally, the size of the class is directly related to the evaluation of the WAC components. As the data on the computer newsgroup in Appendix C demonstrates, the small class (n=10) received substantively higher ratings than the larger classes (n=41; n=47). On a scale of 1 to 5, where 1 = "The purpose was definitely met" and 5= "The purpose was definitely not met," the average rating for the small class was 1.6 whereas the average rating in the larger classes was 2.3 for a combined average of 2.0 ("The purpose was mostly met."). The somewhat lower average of the larger classes was due to the extreme negative assessment from a handful of students, which is related to the previous observations stated earlier as well as a rejection of the WAC pedagogy more generally. The larger the class, the more variation there was in student satisfaction due, I suspect, to the increasing instructional and emotional distance between instructor and student. Nevertheless, I think it is important to see the moderate scores from the larger classes as indicating success, too; especially since it was a lower division social science course in a large research university where most undergraduate students *never* have a writing assignment outside their English courses (at most, they are assigned the infamous "term paper" due at the end of the semester). Indeed, implementing WAC in my political science courses requires a sustained dialogue with the students throughout the semester about the "relevancy of writing" to learning course material and developing critical thinking skills — a perspective that most students came to appreciate. Though mostly successful, there are usually a handful of students every semester who insist that my demands for frequent and varied writing assignments are simply "inappropriate in a political science course."

Despite the small group of disgruntled students each semester, the vast majority evaluated the computer newsgroup positively. Written feedback also supports the mean scores. Frequently students noted that the newsgroup provided the opportunity to create a dialogue with their peers. For example, one student wrote "The newsgroups are great: good opportunity to discuss what is going on in class" and another said "The com-

puter network was also a strength allowing students free interaction of opinions on topics."

Finally, let me just mention that it is important to note that the newsgroup did not stand alone, as it was one of six WAC methods used in the course for a total of 22 separate writing assignments (see footnote 1). The great benefit of the newsgroup was its contribution to creating a forum where one particular type of writing – expressive writing – could be freely pursued thereby allowing other types of writing, e.g., descriptive, interpretative, analytical to be identified, better understood, and more competently developed. Though students did not tend to think of the WAC assignments in these pedagogical terms, they did articulate other values of using multiple techniques. As one student put it, "The different types of assignments are a strength. They made us *think* and apply the information rather than simply memorizing it" (emphasis in student's evaluation).

Conclusion

Expressive writing is a pedagogical technique that can enhance students' interest and integration of information that challenges (even disrupts) their understanding of the social world. For example, learning how to examine socialization and its effects on women and men's public and private lives inevitably challenges students' personal lives, thereby generating strong opinions. This personal engagement and struggle is a necessary component of learning, which can and should be nurtured (Martin, et al. 1976; Jarrett 1991; Gannett 1992). By promoting expressive reaction in a particular forum, students engage the course material in personal terms allowing themselves to absorb the information in ways that transactional writing alone may stifle thinking and learning (Martin, et al. 1976; Fulwiler 1982) Moreover, the students develop the ability to distinguish between mere opinion and supported argument. The use of computer newsgroups as an expressive writing forum provides an additional benefit of allowing students to learn from each other's struggles. An analysis of entries submitted to a newsgroup set up for a lower-division course on "Women, Politics, and Public Policy," indicates that over the course of the semester or with familiarity of the subject, most students' postings to the newsgroup become more complex. As expressive writing merges with transactional writing, reasoned argument begins to emerge. Sustained expressive writing, therefore, has the potential to transform itself from unexamined opinion reactions to the construction of more persuasive opinion driven arguments as students become more comfortable in expressing themselves in weekly postings, experienced in responding to their peers' opinions, and more knowledgeable about topics.

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Notes

1 The six components of WAC in this course are (1) Computer Newsgroups, (2) Microthemes, (3) Free Writings, (4) Group Essay, (5) Photo-Collage with Short Essay and Critical Reflection Essay, and (6) Short Answer and Essay Tests. See McLeod and Soven (1992) for a comprehensive introduction to developing "Writing Across the Curriculum" courses.

2 Only the students post to the newsgroup now. I learned from previous semesters that when I posted a message, regardless of the informational type (e.g., clarification of a class lecture, additional information on the issue being discussed, or an alternative argument to consider), it closed down the discussion.

3 This is an example of another WAC technique incorporated into the class: short in-class note card writing assignments to help students focus their thinking prior to class discussion (see Bullock 1994).

APPENDIX A
Instructional Guidelines for Computer Mail Entries

PURPOSE: The computer facilitated discussions should enhance your understanding of the reading material, lectures, and class discussions by engaging other students in the course to consider issues you find compelling. While there are no right or wrong answers, there are satisfactory and unsatisfactory entries: the talk group is an extension of thoughtful classroom discussion, not a forum for personal complaints about class policies or classmates. Ultimately, this communication forum should help you learn how to *critically reflect* upon the course content and develop more complex views of issues as you write about your opinions on course topics.

Regardless of how often you participate in classroom discussions you must also participate in the computer talk group **at least 10 times** during the semester (participation beyond the minimum will earn bonus points: 1 point per satisfactory entry up to 20 extra points).

CONTENT: While the bulk of your "conversation" will revolve around the course material from (1) thoughts regarding the course content, and (2) responses to your classmates, everyone should also feel free to relate this course to other knowledge or situations you have experienced. The mail entries should link issues from the assigned readings, lectures, class discussion, and/or video presentations. The content of and approach taken in writing the entries can vary, but basically I want

you to FIRST identify an important aspect of your chosen source and SECOND to write your reaction to it. Since this is an interactive medium, many of your entries will be in response (at least partially) to other student's comments. Absolutely no flaming is allowed: courtesy is required.

MECHANICS: Three computer training sessions have been scheduled during the first week of classes. You MUST sign up for and attend one of the sessions. The dates and times are listed in the schedule of readings.

APPENDIX B
Guide to Using *Netscape* in Purdue Computer Labs

Netscape is located within the Applications window. To start *Netscape*, double click on the *Netscape* icon.

The Purdue University homepage will appear. Follow these steps once you are in Netscape:

1. Choose Options from the menu bar.

a) Select Preferences from the pull-down menu.

b) Within Preferences, select the Mail and News tab.

1) In the appropriate boxes, type your name and email address. Use the mouse or tab key to move between fields. When you are finished, click <OK>.

2. To access the class "talk" group, open the class newsgroup. Highlight the information in the Location box using the mouse then hit the backspace key to erase the information.

a) Now type news:purdue.class.pol222 (do not include underline).

b) Hit the return key and wait for the newsgroup to appear.

c) Once you have opened the newsgroup, click on the appropriate icon.

Example 1: If you want to post a new message, click on the post new article icon. A message box will appear. You should type a **subject** on the appropriate line and type your entry in the big box. Do not worry about the other lines; the appropriate newsgroup appears automatically and the "mail to" line can be blank. When you are finished typing your entry, click on Send. Don't be impatient, it may take it a few moments to send your message. When the main newsgroup screen reappears, click on the Reload icon to get an updated listing of postings (including the one you just sent).

Example 2: If you want to read a message on the list, drag the mouse to the listed posting and then click on it. The text of the message will appear. To close the message, click on the Back icon. If you want to post a reply to the message, after you open it click on the Post Reply icon.

A new message box will appear. You will not need to type in the subject line because it will automatically use the subject line from the message you are replying to preceded with "Re:" (as in regarding). Type your entry in the big box. When you are finished typing, click on Send. After your message is sent, you will see the message to which you replied. Hit the Back icon to return to the main newsgroup screen. Click on Reload to get an updated listing of postings.

4. Sometimes articles that were listed seem to have disappeared. To find them, go to the bottom of the main newsgroup screen and click on Show Read Articles. After clicking on it the articles you had read that "disappeared" will reappear. You will also notice that the icon will change to Hide Read Articles. If you want to hide articles from the listing that you have read during a session, click on Hide Read Articles.

5. To exit the newsgroup and *Netscape*, drag the mouse to the upper left hand corner of the screen and either double click on the corner [-] marker or pull down the menu from the corner [-] marker and then drag the mouse to Close. The applications folder will reappear. In the bottom corner of the screen will be a log out box. Click on logout when you are done with your session.

APPENDIX C
STUDENT EVALUATION of POL222 Writing Assignments

L.Kathlene

Instructions for students: As explained in the beginning of the semester, this class was designed to incorporate "Writing Across the Curriculum" assignments. In order to help me design future classes with writing assignments AND to help the School of Liberal Arts evaluate the program, please take a few minutes to judge whether the following purposes were met. Using a scale from 1 to 5, circle the number that best corresponds to your evaluation, where:

1 = Yes, the purpose was definitely met;
2 = Yes, the purpose was mostly met;
3 = Neutral, the purpose was sort of met/sort of not met;
4 = No, the purpose was hardly met;
5 = No, the purpose was definitely not met.

If you feel you cannot evaluate a particular purpose, for whatever reason, then DO NOT circle any number, just leave it "blank." If you have specific suggestions for how to better reach a particular purpose, feel free to write it on the doted line after the statement. For more general sugges-

tions/comments, please feel free to write at the end of the survey. THANK YOU for your thoughtful feedback.

STATISTICAL RESULTS
(of Computer Newsgroup only)

Mean Scores

May'95 (n=10)	Fall'95 (n=47)	Spring'96 (n=41)

Writing Purpose:

To develop expressive writing skills through responding to course content

- questioning information/concepts
- connecting course content to other courses/own life

1.4	2.4	2.3

Class Purpose:

To create more communication among the students

1.7	2.2	2.4

To develop peer learning

1.8	2.2	2.3

To engage students in active learning outside the classroom

1.6	2.2	2.4

To improve small group classroom discussions/learning

1.6	2.4	2.3

Course Purpose:

For students to help each other reconcile old and new information

1.6	2.1	2.4

Writing to Learn, *Assessing* to Learn

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At the 1997 Third National Writing Across the Curriculum Conference, keynote speaker Thomas Angelo concluded his presentation[1] by challenging his listeners to chart new paths to "deep learning," to pursue that fluency of comprehension and application—that transformation—that instructors labor to foster in their students. Achieving this goal, he asserted, demands: 1.) redesigning and reinventing traditional educational operating procedures; 2.) finding ways of evaluating and grading that focus efforts on the collaborative nature of such learning; and 3.) transforming mental models of classroom practice and theory. This paper responds to Angelo's challenges in relation to the assessment of writing across the disciplines. In particular, this discussion will posit a certain "mental model" for assessment and propose a pedagogical milieu most conducive to both it and the kind of learning Angelo espouses.

While attitudes toward assessment have remained virtually the same, the overall *ethos* of writing-across-the-curriculum programs has undergone dramatic re-modeling in the last ten years. First, English departments have assumed roles as participants not pedants in an interdisciplinary dialogue about the nature of writing. As Catherine Pastore Blair noted in 1988, "each discipline has its own individual relationship to language; the English department context is not a privileged one" (384). Beyond the balanced integration of the English studies perspective is the current binding of a dichotomy that divided WAC's concerns since its inception: the reconciliation of the writing-to-learn emphasis with the imperative to learn to write in specific disciplines. Kirscht, Levine, and Reiff in their 1994 *College Composition and Communication* article promote a focus upon "the rhetoric of inquiry" (369-370) as the appropriate path for combining both pursuits, defining the disciplines "as centers of inquiry rather than as banks of knowledge," and disciplinary conventions "as emerging from communally negotiated assumptions about what knowledge is and about the methods for shaping it" (374). WAC programs, according to Jones and Comprone, "must work toward balancing humanistic methods of encouraging more active and collaborative learning in WAC courses with reinforcing the ways of knowing and the writing con-

ventions of different discourse communities. In other words, teaching and research need to be combined in a way that encourages joining conventional knowledge and rhetorical acumen. Only then will students know enough to negotiate between the constraints of different fields and the self-imposed needs of their individual intentions" (61). This evolving *ethos* promises to strengthen the integrity of WAC's purposes and better focus pedagogy so that it may indeed engender deep learning across the disciplines. However, this evolution remains at a great distance from perhaps the most daunting aspect of any WAC program: assessment of writing across the curriculum.

Assessment is inadvertently presented as the least philosophically-aligned component explained in WAC faculty manuals. Such guidebooks invite teachers to see their programs as integrative, student-centered "cultures" for enhanced learning, challenging students' intellectual flexibility in interactive, collaborative classroom environments. However, when writing evaluation is explored, the attitude metamorphoses into one of clinical expedience: evaluation methods are presented primarily as precisely defined, discipline-specific, formalist checklists. Detailed examples pervade excellent WAC faculty manuals such as Barbara Walvoord's WAC workshop packet or UCLA's *The Shortest Distance to Learning*.[2] [See appendices A and B] What sort of documents do these checksheets inspire? Clearly focused, purposefully organized, well-supported prose. So where is the problem? It lies in what is missing from these checklists: while valorizing the discipline-specific character of students' writing, these checklists neglect the writing-to-learn side of the WAC equation.

Checklist mentality undermines the student-centered aspects of writing to learn in three ways. First, the checklists value writing as a *product* and not students' familiarity and facility with composing *processes*. Based solely on instructors' expectations, the checklist is product-oriented: it places value on apparent and effective outcomes. This is not to say that final drafts are not worthy of careful consideration, but, while in their teaching instructors place value on students' flexibility in developing effective writing (and thinking) behaviors, in assessment instructors rarely address or value that flexibility. Second, the checklist asserts the *authority* of discipline-specific discourse without affirming or even accounting for the *autonomy* of students' own voices. While colleagues across the disciplines labor to create classroom environments in which students feel comfortable exploring their ideas and discovering their own best ways of sharing them, nowhere in the checklist is students' making of meaning *on their own terms*—which writing to learn so values—accounted for. For example, a first-year writing checklist from my former campus asserts the "controlling" main idea for the student's essay "is chosen in accordance with the requirements and guidelines provided

by the instructor and is consistent with the goals of the assignment": what controls students' responses is not of their own making. In addition, the writing demonstrates "an acceptable level of grammatical correctness"—acceptable in relation to the "conventions of edited written English" (see appendix C). This is the rhetoric of the academy at its most daunting. It creates that chasm between students' making manifest their own ideas and the academic demand that students articulate meaning only in the language the academy acknowledges. In classrooms that strive to be student-centered, the language of the student and the discourse of the text should stand *in relation to* one another; students' authenticity must be part of the equation. Finally, the checklist privileges an *analytic* predisposition toward student texts versus providing students with a *holistic* reader-response from the instructor that articulates how the student's making of meaning was interpreted and re-formed by an interested and involved reader. Checklist mentality is judgmental: students' discourse is either in alignment with teacher expectations, or it is not. But beyond this sensibility of correspondence that defines one kind of assessment lies the middleground of a reader's response—terrain expansive enough to permit the demands of discipline-specific discourse to be placed alongside the students' making of meaning; here the voice of the novice need not been supplanted. The instructor's reader response may acknowledge that meaning has been made *both* in students' alignment with disciplinary discourse *and* in their divergence from it. Thus, teachers' constructive responses as interested professionals can invite students to participate in a new discourse community without the dichotomy of either/or judgments.

WAC manuals' portrayal of assessment as aligned with only formalist expectations stands in contradiction to the balance suggested in WAC's recent reconciliation of writing to learn and learning to write in the disciplines. As teachers committed to this reconciliation, we should pursue "mental models" of assessment that allow us to practice in assessment what we "preach" in our pedagogy across the curriculum: the primacy of students' thinking. While I will not presume expertise in the assessment of other disciplines' discourses, I would like to suggest a heuristic that may reveal the character of assessment pertinent to both the new WAC *ethos* and the goal of deep learning. I propose a dual heuristic, of sorts, for discovering assessment techniques that address directly the conflicts inherent in WAC checklists. This heuristic seeks out a new model of assessment derived from what these checklists clearly lack: *dialogic* and *dialectical* dimensions.

Checklists are monologic in their articulation of concerns—academic demands predominate—and are focused solely on closure in the form of a product. This strategy subordinates students to being, at best, adept

mimics of their instructors' expectations and, at worst, empty accounts awaiting deposits of authority. To remedy this imbalance, evaluation can and should take on the energy of good conversation: positing, listening, responding, arguing, qualifying, restating—all activities part of the process of writing itself. Assessment that promotes ongoing conversation about its own conflicts—ideally, throughout a student's college career and, pragmatically, up to a manageable point within the confines of a semester—enlists the novice writer as a participant. Such dialogic assessment tools are already plentiful. For example, students' self-evaluations of their writing projects submitted routinely throughout the term are an effective path to evaluative conversations. I use Jeffrey Sommers's technique, defined in his chapter of Anson's *Writing and Response*, entitled "The Writer's Memo: Collaboration, Response, and Development."[3] I ask my students to offer me a personal letter with each essay draft in which they explain their composing processes, what parts of the project were easy, which aspects were more daunting, what this particular project revealed to them about themselves and their composing processes, and what in particular they want me to respond to in my commentary—what they believe is most important for us to talk about. My students and I share this correspondence in an assessment log, a diary consisting of their self-assessments, my responses to their drafts, and *their reactions* to my responses, which I also answer. Like Glenda Conway, who requests self-reflective cover letters with her students' final portfolios, I find myself looking forward to reading our shared diary as much as their projects (84).

Through this sort of dialogue, I hope my students not only will sharpen my diagnostic abilities as an evaluator but also identify for themselves both the rigors of appraising their efforts and the authority I offer them in setting the course of assessment. Written teacher commentary of any sort—as opposed to merely correction symbols—can foster dialogue, particularly if its asks questions and poses options for revision.[4] Obviously, conferences with students, ones in which drafts are examined, are the most-frequented sites for dialogue, but there too teachers must beware of their love of their own monologues and instead reveal possibilities for reconsidering students' texts in careful conversation.

As it is dialogic, assessment can and should be dialectical—a mode of inquiry in itself. How does assessment pattern a way of knowing, particularly a self-reflexive understanding of evaluation of a specific discipline? Checklists imply that the path of knowing is one of alignment: instructors characterizing students' writing in relation to their distance from discrete expectations of form, the way of most traditional essay grading. This alignment is never as clear-cut as instructors may make it seem; as Milton, Pollio, and Eisen noted in their 1986 study, *Making Sense of College Grades*, instructors can come to the same text in strikingly differ-

ent ways over time, supposedly applying the same criteria. A true dialectic is no less capricious but is not one-directional; it offers an open-ended interchange. Its participants set the pace and tone of the conversation and agree on a point of closure. In evaluating writing, this interchange can be multi-vocal, for example, involving teacher commentary, students' self-assessments, and peer evaluation. The voices in the conversation, each representative of different reading contexts, carry their own authority, but the identities are free to evolve over time. Peers may begin as cheerleaders but, in time, become adamant critics. Even instructors may begin as advice-givers but over successive drafts become astute questioners—or simply listeners. A dialectic demands effort from all participants; passivity or lack of commitment to inquiry shortchanges those involved and brings the path to an abrupt end.

Ideally, the dialectic that assessment embodies should invite students into the same dialectic WAC pedagogy promotes: an interactive, transformative experience with language. In this regard, assessment techniques should be qualified by this question: does the technique an instructor chooses open students to and foster an appetite for new experiences with thinking and writing? Checklists, in their concern for alignment with academic/professional standards, imply that such alignment is an end in itself, a sufficiency. But can assessment encourage students to move beyond the comfortable repose of sufficiencies to remain eager for more experiences, despite conflicts in expectations and outcomes? The validation and closure proffered by the checklist must be surpassed by receptivity to the experience of making and re-making texts. The goal of assessment should be not (only) to valorize the pragmatic—the assimilation of discrete knowledge and patterns of organization—but to invite the openness to experience a thinking person maintains, encountering conflicts and yet discovering options for appropriate action.

What assessment strategies model this orientation to experience? High-risk performance assessments, such as those in writing proficiency examinations, model, like checklists, closure in the form of alignment with defined criteria. On the other hand, assessment techniques that take into account students' needs to reconceptualize texts through revision after teacher and peer feedback—open techniques—fair better in the dual heuristic. Currently, in the face of both WAC's commitment to affirming students' authority in creating their own discipline-specific texts and the administrative imperative for graded assessment, the most dialectical of compromises is portfolio assessment. While certainly not apropos in every classroom across the curriculum, portfolios of student-selected student writing have the potential to ensure a process-oriented, student-centered approach to writing assessment.[5] While no panacea in itself, the portfolio method does fulfill, within the administrative constraints instruc-

tors currently find themselves, the dual heuristic: it is both dialogic and dialectical. To say that portfolios stimulate conversations in regard to assessment is common knowledge. Dialogue between peers and between students and instructors, both spoken and written, propels essay drafts' development over the course of a semester or, in the case of writing-across-the-curriculum portfolios, over a course of study. And, as a way of knowing about writing in any discipline, portfolio assessment is the most effective dialectic available thus far. While still reliant upon an anthology of varied products, portfolio assessment accounts for the implementation of processes shaped by students' own decision-making. It permits the instructor, novice writers, and their peers the time to be engaged readers of texts-in-progress—and to offer the sort of ongoing readers' responses that checklists disallow. The dialectic that portfolio evaluation invites is open-ended (to a point) and balanced both in its respect for individual authority and its demand for receptiveness to diverse commentary. However, this dialectic can be maintained only if supported by classroom pedagogy commensurate with its reciprocity and multivocality. In relation to aligning assessment appropriately with the heuristic I have suggested, I recommend a re-examination of "operating procedures," to paraphrase Angelo: the classroom practices that undergird assessment.

First, instead of indoctrinating new WAC faculty with rubrics for grading, WAC administrators need to discover with them plans for effective workshop activities that promote thinking: activities that reveal how to assign tasks to workgroups; how to make sure tasks are accomplished in the time available; how to foster successive drafts of a document; how to generate and build on free-writing or brainstorming; and how to promote different types of revision. A campus-wide, up-to-date, open file of useful *real* classroom strategies is as essential to establishing common goals for writing-to-learn as sharing discipline-specific assessment criteria. As Edward White asserts, "until effective ways of teaching the writing process become well known, there will be insufficient demand for process measures to assess that curriculum" (243). A balance must be fostered across the disciplines between accentuating writing in its equipmental capacity—as an effective product, as a tool—and promoting an openness to the processes that forge that product.

Second, in relation to the goal of expanding students' autonomy within the academic conversation, a repertoire of collaborative learning techniques may provide the best arena for enhancing students' responsibilities in the assessment situation. Studies such as Nystrand and Brandt's reveal how empowering peer-critiquing can be: students come to see each other as collaborators and revision as "reconceptualization"; when instructors are the sole evaluators, teachers become "judges" and the process of revising is reduced to "editing" (212). Too often, however, the

benefits of collaborative experiences are seen as icing on the pedagogical cake: as Sharon Hamilton asserted in her recent conference session, "Writing in 'The Principled Curriculum'," [6] the collaborative learning environment clearly needs to become the cake. The collaborative classroom is also the storehouse from which to distribute shares of evaluative responsibility. If faculty impress upon students that there are various ways of using the process effectively, somewhere in assessment faculty must *attribute value* to students' processes. WAC faculty need to draw attention to the interconnections among talk (recorded or videotaped), notes, outlines, and drafts—the progress apparent in a collection of articulations by a single student. In other words, instructors must value more than just the efficacy of tentative and final drafts to show students that early work is essential to final assessment. The collaborative learning experience is the vehicle for these intentions. Working in groups, students can evaluate portfolios of works-in-progress: they can generate criteria, come to consensus (if possible) in their critiques, and offer group commentary along with dissenting opinions. Workgroups can prepare case studies about their peers' portfolios as part of their own writers' journals. They can record interviews with "famous" writers: their professors, professionals in the field, or senior students. Having been granted a degree of control in establishing criteria for evaluation, students then have the concomitant responsibility to apply them thoughtfully. In discussing peers' work, other students can palpably address the writing process and become conversant in the meta-discourse of rhetorical commentary pertinent to their field. And, of course, well-focused feedback orients authors' intentions, if for nothing else than to show how they relate to the understanding of their peer groups. Composing processes in all of their dimensions can be fruitfully appreciated, negotiated and assessed *by students* in groups—not by their instructors alone.

Group dynamics bring into immediate high relief another concern in relation to students' progress: their evolving identities. But how can assessment encourage students' authenticity—the growth of individual voices? Faculty are accustomed to assessment that aligns students with the traditions of discipline-specific discourse: we reward students who sound like us. But can instructors attribute value to apparent *difference*, to students whose thinking in their own terms impedes the trajectory of traditional instruction—a "conversation" into which we respectfully have invited them (Rorty as qtd. by Trimbur 606)? In relation to affirming students' own voices, "When we focus on teaching students discourse conventions . . . we need to do so in a way that allows [students] to problematize their existence and to place themselves in a social and historical context through which they can come to better understand themselves and the world around them" (Freire as paraphrased by Chase 21).

To that end, to at least focus concern on students' evolving voices, the *student-writer*, her/his *peers*, and her/his *teacher* should work to:

a.) recognize and define the human voice apparent in the writing;
b.) identify and define the kinds of thinking apparent in the piece; and,
c.) identify the milieu from which the work comes, along with defining how it relates to that world and the world of the reader.

A balance should be struck between the writer's self-consciousness and articulated intentions and the impact of those notions upon her peers and her instructor. A bridge should span the private being of the individual student and the public demands of discipline-specific articulation. Evaluation should reflect the dynamics of both.

Third, what the previous paragraphs implicitly espouse is that the teacher as the locus of authority in the classroom can choose to distribute shares of power. Students' self-assessments—which act to contextualize[7] their composing processes and drafts—should be counterbalanced with their peers' critiques and the instructor's reader-responses in assessment. Reader-responses from all three parties and follow-up interchanges should be integral to evaluation procedures. When antagonisms arise among respondents, the instructor should act as mediator, translator, and negotiator to provide options for reconciliation. When instructors *cause* antagonisms, they must negotiate with students who, in turn, tolerate their differences as co-participants in the learning process—the conversation—acknowledging their instructors as experienced, knowledgeable representatives of the academic/professional community. Students should become responsible both for self-regulation and applying class-generated criteria to the work of other students. Discipline-specific assessment rubrics need not and cannot be abandoned but could be placed and critiqued *in relation to* students' intentions. Students could negotiate with their peers about ways to define their relationship to the discourse traditions in which they find themselves. They should come to trust each others' judgment and their own—not just relying on the teacher's authority.

Theories of collaborative learning claim that the more directly responsible students become for their own learning, the more richly they benefit from instruction. Balancing evaluative power in openly dialogic and dialectical ways can challenge students to take their writing and that of others *seriously*. Similarly, the possibility of student-teacher collaborative assessment also could ground instruction in respect for individual composing processes and for students' authenticity and autonomy, and foster a responsive and not purely judgmental relationship to students' work-always-in-progress. In this way, monolithic checklists can be replaced with a multiplicity of workable classroom strategies that open for

students the tangled way to consensus about effective discourse. It is when students critique their own ways of knowing and those evaluations are recognized as *valid* and in dialogue with the discourse communities they occupy that they achieve a real sense of their own emplacement—their *being* somewhere, their *going* somewhere. Assessing-to-learn, then, can foster the transformation at the heart of Angelo's challenge—the deep learning that occurs when students find themselves.

FOOTNOTES

[1] Thomas Angelo's presentation was entitled, "Seven Shifts, Seven Levers: Using Assessment to Develop Learning (and Writing!) Communities Across the Curriculum" and was delivered on 6 February 1997.

[2] See "Checksheets for Criteria" in Barbara Walvoord's in-house text, *Teaching Students to Think and Write* and pp. 73-82 in *The Shortest Distance to Learning*, ed. JoAn McGuire Simmons, Los Angeles: Los Angeles Community College District and UCLA, 1983.

[3] See also accounts of similar metacognitive self-assessments in Sam Watson's chapter, "Letters on Writing—A Medium of Exchange with Students of Writing" in *Teaching Advanced Composition: Why and How*. eds. Katherine H. Adams and John L. Adams, Portsmouth, NH: Boynton, 1991. 133-150; and Kathleen Blake Yancey's *Portfolios in the Writing Classroom* Urbana: NCTE, 1992. 104.

[4] For a thorough, up-to-date examination of teacher response styles and the degrees to which they control student writing, see Richard Straub's article, "The Concept of Control in Teacher Response: Defining the Varieties of 'Directive' and 'Facilitative' Commentary," in *College Composition and Communication* 47.2 (May 1996): 223-251.

[5] Several authors describe in particular the authority-sharing benefits of portfolio assessment. See, for example: Belanoff, P. and M. Dickson. *Portfolios*: *Process and Product*. Portsmouth, NH: Boynton, 1991; Callahan, Susan. "Portfolio Expectations: Possibilities and Limits." *Assessing Writing* 2.2 (1995): 117-151; Gill, K. *Process and Portfolios in Writing Instruction*. Urbana: NCTE, 1993; and Yancey, K. B. *Portfolios in the Writing Classroom*: *An Introduction*. Urbana: NCTE, 1992.

[6] The full title of Sharon Hamilton's presentation was "Writing in 'The Principled Curriculum': Writing and Critical Thinking in a New Undergraduate Education Program" (Third National Writing Across the Curriculum Conference, Charleston, SC, 7 February 1997).

[7] For an insightful discussion of such contextualization in students' self-assessments see: Jeffrey Sommers's article, "Grading Student Writ-

ing: An Experiment and a Commentary," in *Teaching English in the Two-Year College* 20.4 (December 1993): 263-274.

Appendix A

from *Thinking and Writing in College*. Barbara Walvoord, Lucille McCarthy, et al. Urbana: NCTE, 1991. 15-16.

Primary Trait Scoring Sheet for Anderson's Class

Please evaluate the original research paper and assign an appropriate number of points for each section. In each category, higher numbers represent greater mastery. Please do not award partial scores.

Title

5 - Is appropriate in tone and structure to science journal; contains necessary descriptors, brand names, and allows reader to anticipate design.

4 - Is appropriate in tone and structure to science journal most descriptors present; identifies function of experimentation, suggests design, but lacks brand names.

3 - Identifies function, brand name, but does not allow reader to anticipate design.

2 - Identifies function or brand name, but not both; lacks design information or is misleading.

1 - Is patterned after another discipline or missing.

Introduction

5 - Clearly identifies the purpose of the research; identifies interested audience(s); adopts an appropriate tone.

4 - Clearly identifies the purpose of the research; identifies interested audience(s).

3 - Clearly identifies the purpose of the research.

2 - Purpose present in Introduction, but must be identified by reader.

1 - Fails to identify the purpose of the research.

Scientific Format Demands

5 - All material placed in the correct sections; organized logically within each section; runs parallel among different sections.

4 - All material placed in correct sections; organized logically within sections, but may lack parallelism among sections.

3 - Material placed in the right sections, but not well organized within the sections; disregards parallelism.

2 - Some materials are placed in the wrong sections or are not adequately organized wherever they are placed.

1 - Material placed in wrong sections or not sectioned; poorly organized wherever placed.

Methods and Materials Section

Contains effectively, quantifiably, concisely organized information that allows the experiment to be replicated; is written so that all information inherent to the document can be related back to this section; identifies sources of all data to be collected; identifies sequential information in an appropriate chronology; does not contain unnecessary, wordy descriptions of procedures.

4 - As above, but contains unnecessary information, and/or wordy descriptions within the section.

3 - Presents an experiment that is definitely replicable; all information in document may be related to this section; however, fails to identify some sources of data and/or presents sequential information in a disorganized, difficult pattern.

2 - Presents an experiment that is marginally replicable; parts of the basic design must be inferred by the reader; procedures not quantitatively described; some information in Results or Conclusions cannot be anticipated by reading the Methods and Materials section.

1 - Describes the experiment so poorly or in such a nonscientific way that it cannot be replicated.

Nonexperimental Information

- Student researches and includes price and other nonexperimental information that would be expected to be significant to the audience in determining the better product, or specifically states nonexperimental factors excluded by design; interjects these at appropriate positions in text and/or develops a weighted rating scale; integrates nonexperimental information in the Conclusions.

Appendix B

from *The Shortest Distance to Learning.* Ed. JoAn McGuire Simmons. Los Angeles: LA Community College District and UCLA, 1983. 77.

This guide, like most used in writing assessment, gives as much explicit attention to structure and style as content; your guide would give

much less. For example, a scoring guide for Porter Ewing's history question, "Compare and contrast the old American Left with the American Left of the 1960's," might read like this:

A-- These essays demonstrate a clear grasp of the similarities and differences of the Old and New Lefts. They choose points of comparison that focus on their most characteristic traits of policy and political style, and they elaborate those points with well-chosen examples. Structure and mechanics serve content.

B-- These essays demonstrate a good understanding of the similarities and differences of the Old and New Lefts. They choose reasonable points of comparison and explain those points with appropriate examples. Structure and mechanics usually serve content.

C-- These essays demonstrate an acceptable but pedestrian understanding of the similarities and differences of the Old and New Lefts. Their points of comparison are the most obvious ones, and they are developed by only the most obvious examples, if any. Structure and mechanics may cause minor distractions for the reader.

D-- These essays demonstrate only limited understanding–or partial misunderstanding–of the similarities and differences of the Old and New Lefts. They may compare inappropriately or incompletely, and may make a limited number of serious factual errors in stating points of comparison or presenting examples. Structure and mechanics may sometimes impede the reader's understanding.

F-- These essays demonstrate little or no understanding of the similarities and differences of the Old and New Lefts. They may significantly misstate facts and misinterpret them, as well as failing to make overall points that are convincing or even defensible. Structure and mechanics may significantly impede the reader's understanding.

Unlike the UCLA scale, this one treats mechanics only as they actually interfere with communication.

APPENDIX C
The English 101 Checklist

Essays written in ENG 101 must be rated "superior," "good" or "fair" in all of the following categories in order to be judged passing. These criteria for evaluation apply to all essays, including the final in-class essay.

I. THESIS STATEMENT
- Superior
- Good
- Fair
- Fail

The controlling or main idea of the essay is clearly apparent. The statement of the main idea, sometimes called the thesis, is effectively placed, whether at the beginning of the essay or elsewhere. It is chosen in accordance with the requirements and guidelines provided by the instructor and is consistent with the goals of the assignment.

II. INTRODUCTORY PARAGRAPH
- Superior
- Good
- Fair
- Fail

The introductory paragraph includes more than a mere statement of the main idea. It fully and effectively orients the reader and attempts to attract the reader's interest.

III. ORGANIZATION AND COHERENCE
- Superior
- Good
- Fair
- Fail

The principle of organization is easily perceived, appropriate and effective. If more than the organizational principle or pattern is used, they are used together clearly and effectively to produce a unified whole. There is an easily followed progression of development from sentence to sen-

tence, idea to idea, paragraph to paragraph, so that there are no gaps in logic or information.

IV. SUPPORT
Superior
Good
Fair
Fail

This support is consistent with the main idea, specific and persuasive. Ideas are expanded and illustrated rather than singly repeated. The supporting details, examples, illustrations, facts and arguments are drawn from more than one source. Possible sources include personal experience, textbook readings, classroom discussions, interviews, television programs, newspapers, magazines, journals, pamphlets and books. In short, the support is effectively chosen and demonstrates an awareness of the topic beyond personal experience.

V. CONCLUSION OF THE ESSAY
Superior
Good
Fair
Fail

The concluding paragraph is not monotonously repetitive but rather demonstrates an understanding of the writer's obligation to maintain reader interest.

VI. VOCABULARY AND SENTENCE CONSTRUCTION
Superior
Good
Fair
Fail

The content of the essay is expressed clearly and correctly. Individual words and phrases are well chosen to express the writer's ideas without serious distortion or excessive simplification. Sentences are clearly and completely formed and demonstrate neither monotonously repetitive nor tangled syntax. End punctuation is generally correct. Coordination and subordination are used to achieve sentence variety.

VII. ADDITIONAL CONVENTIONS OF EDITED WRITTEN ENGLISH

Superior
Good
Fair
Fail

The essay demonstrates an acceptable level of grammatical correctness with regard to elements not specifically mentioned in Category III. Of particular concern here are verb forms and tenses, including subject-verb agreement. In addition, capital and lower case letters, contractions, and possessive forms are generally correct and commonly used words, including homonyms, are spelled correctly. Again, errors of these kinds are not so pervasive as to interfere with clarity and readability.

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Student Perceptions of the Value of WAC

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Introduction

Writing Across the Curriculum (WAC) programs in colleges and universities are generally implemented because of faculty concerns about student writing (Young, 1994). Although the impetus for WAC programs may be concern about student writing, the programs themselves are frequently based on a faculty development model (Gorman, 1986; Russell, 1992; Walvoord, 1996), often through workshops that introduce faculty to the theory and practice of teaching with writing. This faculty development serves several purposes, the most basic of which is to have an impact on students by changing the attitudes and practices of their teachers (Young, 1994; Young & Fulwiler, 1986). The assumption behind these cross-curricular writing programs is that education is essentially delivered to students through faculty (Gorman, 1986; Walvoord, 1996).

With the spread of WAC through increasing numbers of colleges and universities, there has been a corresponding increase in questions about WAC outcome. At the simplest possible level, WAC directors can count numbers of workshop participants in order to demonstrate campus-wide impact. Somewhat more sophisticated evaluation efforts look at faculty satisfaction. Such studies typically show high participant satisfaction with WAC workshops (Hughes-Wiener & Jensen-Cekalla, 1991; Smithson & Sorrentino, 1987). Faculty often report an intention to make changes in their classrooms, and, in many cases, follow-up surveys indicate that these changes have been implemented (Bureau, 1993; Smithson & Sorrentino, 1987). Researchers find that it is possible to measure progress toward faculty development goals and that such goals, in fact, are apparently being met.

It is comparatively easy to describe the impact of faculty development on faculty; it is much more difficult to examine how developing faculty affects their students (Walvoord, 1996). Furthermore, there are other complications common to any study of student outcome. For example, how do we isolate the impact of WAC from normal maturation?

Over what period of time can we realistically expect to see an effect? Should we look for program impact by studying student writing, by examining attitudes about writing, or by looking at learning? Despite these difficulties, student outcome is of central importance to the success of a WAC program. Describing outcome meaningfully, if not absolutely, remains a critical goal for all writing program directors. In a time of declining resources and expanding needs, accurate assessments of program value are of great interest, as well, to administrators and faculty across the curriculum.

Theoretical Background

Student outcome of WAC has been studied dating back at least to the early 1980s, when faculty at Michigan Tech gathered data about the WAC program there (Young & Fulwiler, 1986). Even in those early studies, two main (and separate) threads for study of WAC student outcome are apparent: research on the quality of writing and/or learning (McCulley & Soper, 1986), and research on student attitudes about writing (Selfe, Gorman, & Gorman, 1986).

Subsequent research has generally followed similar lines. Quantitative studies have supported claims that student attitudes toward writing can be improved by faculty use of WAC techniques (Smithson & Sorrentino, 1987), and alumni surveys have confirmed that graduates usually are appreciative, at least in retrospect, of the writing that was included in their courses (Long, Straquadine, & Campbell, 1992; McMullen & Wellman, 1990). Other researchers have demonstrated that exposure to WAC activities in content area courses can promote growth in writing (Beadle, 1989; Hughes & Martin, 1992), thinking (Coker & Scarboro, 1990), and learning (Kerr & Picciotto, 1992; Thompson, 1989).

Despite the apparent success of the cited studies, other researchers discovered that outcome is a slippery and tenuous thing at best, difficult to pin down quantitatively. For example, Day (1989) found that simply adding writing activities to a course did not result in significant improvement in student writing skills. In her study, it was the thoroughness and quantity of instructor feedback rather than the writing itself that correlated with improvement in student writing. Moore (1993) also concluded that teacher guidance was essential to improvement in writing.

Becker (1992) found that student outcome for WAC could not be easily measured through attitude change or improvements in writing. He later concluded (1993) that faculty know better than state-of-the-art research can prove about the value of WAC. Research questions need to be reconceived, he argued, and "qualitative, in addition to quantitative, assessments need to be applied. Approaches that address longitudinal questions need to be invoked" (1993, p. 2).

Some of the more recent research has attempted to circumvent problems in outcome measurement by examining student perceptions directly under the assumption that students themselves can provide a meaningful and reasonably accurate account of the value of writing. In a study using quantifiable interview data gathered from undergraduate students, Light (1992) demonstrated a connection between writing and learning. He found that "the relationship between the amount of writing for a course and the students' level of engagement...*is stronger than any relationship we found between student engagement and any other course characteristic*" (p. 25). Lonoff (1994) used surveys to document course outcome, and her study revealed the same connection between writing and course engagement. Students in her study reported that writing was valuable because it forced them to keep up with their course work and engage in thinking.

Finally, Hilgers, Bayer, Stitt-Bergh, and Taniguchi (1995) used in-depth student interviews to examine the effectiveness of courses designated as writing-intensive (WI courses). Based on interviews of 82 students, each of whom had taken three or more WI courses, Hilgers et al. concluded that students perceived the writing intensive courses as causing improvement in their writing skills, their ability to problem-solve, and their understanding of course material.

These studies have gone a long way towards both answering and complicating our questions about WAC outcome. But despite all that we have learned, our understanding is hardly complete. Knoblauch and Brannon (1984) pointed out the complexity of measuring, in any meaningful terms, improvement or growth in student writing. They described genuine improvement as connected to a writer's "maturation" (p. 160), which may be encouraged or discouraged by experiences over a semester or a college career, but which typically is not measurable through pre/post test studies. Furthermore, they argue, the potential value of an emphasis on writing is in relationship to the writer's own attitudes and experiences, neither of which is retrievable through research focused on close examination of student texts. These complications in the study of writing development, raised by Knoblauch and Brannon almost 15 years ago, remain unresolved today.

There have been many studies of student writing and WAC efficacy in the intervening years. However, Ackerman (1993) pointed out that current studies of writing to learn, whether implicitly or explicitly connected to WAC programs, have generally suffered from an excessively experimental approach to research. In view of the "host of complicating factors in learning and literate practices," he suggested that "the next generation of studies might...attend to more qualitative measures of learning and richer representations of the writers in question" (p. 360).

Many WAC researchers agree that better means of describing WAC outcome are needed (Becker, 1992; Goetz, 1990; Hilgers et al., 1995; Hughes & Martin, 1992). Especially when WAC programs are faculty development based, and especially when student outcome is of interest, flexibility is imperative. Each of the cited authors particularly recommended qualitative research as a productive avenue for exploration, as well as suggesting a need for research focused on students themselves.

Other writers in the larger field of education also argue for increased use of student voice, of student perceptions, in research about or evaluation of educational programs (Corbett & Wilson, 1995; Erickson & Schultz, 1992; Peterson & Borden, 1993). As already demonstrated, some studies of WAC have focused on student products (the writing itself); many others have used survey instruments to elicit information about student attitudes. Both approaches have been useful in expanding our knowledge about student outcome. But neither approach makes full use of student voices reporting their own perceptions and experiences. It is this, I think, that is needed today.

The Present Study

The purpose of this study was to learn, through open-ended interviews with students, their perceptions about how the implementation of teaching-with-writing strategies across a curriculum influences them. The local WAC program, now well-established, provided an appropriate site for examination of these perceptions. Faculty here are exposed to general principles and specific strategies that may lead to changes in the way they use writing in the courses they teach. Here, as elsewhere, evaluation results demonstrate that the workshop training faculty receive does affect the choices they make in their classrooms (Bureau, 1993). But comparatively little has been known about how the changes affect students.

In order to conduct this student-focused research, I needed to identify groups of students who had first hand experiences with a wide variety of teaching-with-writing strategies. I sought these students in majors that I identified as writing-intensive. For my purposes, I defined writing-intensive majors as those that met three criteria: (a) writing is assigned in most courses offered within the department or program, (b) most or all teachers in the department include writing activities in the courses they teach, and (c) students are expected to write in various forms or genres. I did not distinguish between departments where the primary orientation is writing to learn and those where the orientation is learning to write within a professional or disciplinary community. In our program, faculty routinely identify themselves with both goals; in addition, students themselves may not describe outcome in those terms, regardless of faculty intentions.

My initial question, simply put, was this: What do students think happens to them, as writers or as learners, when they are immersed in a writing-intensive curriculum? As I began gathering data and listening to students' own words, I focused the study on two distinct strands of inquiry:

1. How (if at all) do students in writing-intensive majors describe the effect of writing on the nature and value of the learning?

2. When students regularly are assigned writing activities in content area courses, how (if at all) do they describe the effect on their development as writers?

Method

This study was conducted at the University of North Dakota, a public institution with about 12,000 students. A WAC faculty development program has been in place at UND since 1991; at the time of this study, more than 250 of the 700 faculty had participated in voluntary faculty development efforts, and many non-participating faculty were familiar with WAC concepts from workshops at other institutions or reported learning about WAC from colleagues. In some departments, colleges, and programs the WAC program has put down particularly deep roots; students in those departments are asked to write on a regular basis and in many different courses. Five such academic units (Political Science, Recreation, Nursing, Elementary Education, and Anthropology) became sites for this research.

The study began in Fall 1994 with ten students from two departments (Political Science and Recreation). Each student was interviewed, the interview was transcribed, and transcripts were coded and analyzed. Twenty-one additional students (seven each from Nursing, Elementary Education, and Anthropology) participated in the study in 1995-96. For this second phase of the study, students were interviewed twice, about three months apart. The final result was about 50 hours of interview tape, representing interviews with 31 different students.

In order to triangulate data to the extent possible, given the focus on student perceptions rather than objective measurement (see Delamont, 1992 and Schumacher & McMillan, 1993, for more detail on information sources in qualitative studies), the second phase of the study also included in-class observations. For each selected major, I attended one senior-level course as a participant-observer for the entire semester. Class involvement offered three definite advantages. First, students knew me, at least to a limited degree, and they had some reason to trust me as sincerely interested in them and their perceptions (see Glesne & Peshkin, 1992). The personal contact was probably at least partially responsible for student willingness to participate in the study.

Second, class observations provided a shared context that could be referred to during interviews. For example, I was familiar with assignments that students were working on, and that background knowledge often provided a basis from which to ask additional, more probing questions during the interviews. Or when students compared the value of writing assignments with the value of classroom activities, I understood the differences that they described.

Finally, class observations allowed me to collect copies of assignment sheets, syllabi, and other materials handed out by teachers in the three classes observed. When students referred to teacher instructions or expectations, I had a sound basis for follow-up questions about their understandings.

Student papers were the third data source used in this study. Each participant was invited to bring copies of papers written during the semester to the final interview. Since the study focus was on student perceptions rather than student writing itself, the papers were used primarily as a basis for data triangulation and for questions during the second interview. As we paged through papers, reading aloud all the teacher comments and selected pieces of student text, students spoke in concrete terms about the value for them of particular pieces of writing.

All except two of the students participating in this study were self-reported seniors at the time of their interviews. This was a criterion for selection of study participants, since seniors have a breadth of experiences unlikely to be equaled by less advanced students. Other selection criteria were less well-defined but followed generally accepted parameters for qualitative research (Seidman, 1991): I was seeking students who seemed to represent the range of students in each major, both personally and academically.

I hand-selected study participants in four of the five target departments (Recreation faculty simply provided me with a list of names), and no student declined to participate when invited. In one of the three classes observed, the small class size allowed me to interview almost the entire class (seven out of eight students), omitting the final student from the study only because her personal life made participation very difficult to arrange.

This method of sampling allowed me to balance groups of participants. I invited students who participated extensively in class as well as those who never volunteered responses. Some participants were non-traditional students while others were of traditional college age. I selected participants who appeared to represent their classrooms in terms of gender and ethnicity. During the interview process, I discovered that some students identified themselves as disabled. On the whole, I was satisfied that I had recruited a participant group that reflected the diversity of

students in the classrooms of my five target writing-intensive majors, and the interviews themselves supported that belief.

Although the first 10 study participants were interviewed in only single, one-hour sessions, I chose to use a two-interview sequence (both interview guides are found in the Appendix) for the final 21 participants. The more rigorous interview methodology, coupled with semester-long class visitation, gave me greater confidence in the honesty of student responses as well as providing me with an opportunity to probe more deeply into student meanings and perceptions (see Seidman, 1991, and Glesne & Peshkin, 1992, for more detail on the advantages of an interview sequence). The result was a body of data with many internal cross-checks and cross-references. For example, the transcripts document many instances when a student, in a second interview, began a story by saying, "I may have told you this last time, but...." The design of the study enhanced credibility while preserving flexibility, an important component of a qualitative research project (Phelps, 1994; Vierra & Pollock, 1992).

Data Analysis

The initial codes were developed during the pilot study. My research questions, which shaped the interview questions, provided some guidance. Several early codes, like "the value of writing" and "strengths and weaknesses as a writer" sprang directly from that focus. My field notes and the interviews themselves were additional influences on the development of codes. For example, I was initially surprised by the degree of emphasis students placed on individual teachers when they talked about writing. "The teacher" soon became one of my codes in response to the sheer quantity of material I found on that topic within the transcripts.

During analysis of the full series of transcripts, I worked with eight major codes: the value of writing, kinds of writing, writing in general education, the teacher, affect/attitudes about writing, development of a writer, the writing process, and strengths and weaknesses as a writer. Several of those categories contained sub-codes, and, during continued analysis, the categories themselves were grouped into four separate but overlapping areas of interest. Those areas of interest were the value of writing, the role of the teacher, the development of a writer, and student affect/attitudes. As data analysis continued, I found that assertions related to the role of the teacher or to student affect/attitudes could fit coherently under one or both of the other two categories; the data presented here are generally divided into perceptions about the value and meaning of writing, and perceptions about the students' own growth as writers.

The methodology used for this study resulted in a body of data that reflects student perception about their own writing and its meaning. The study gives a voice to students, so they can speak for themselves about their education. Although any researcher seeks trends and patterns, individual personalities and understandings are also a part of this story. In the Results and Discussion, below, I use students' own words (names are pseudonyms), edited only to eliminate distracting redundancies and improve readability.

Results and Discussion

The impetus for this study was the need to understand more thoroughly what happens to students, from their own perspectives, when a WAC program effectively promotes writing throughout the disciplines. Students characterized the impact of writing in their majors as influencing them, first, as learners, and second, as writers. There was overwhelming agreement that writing is central to learning, and that writing-in-the-major had been an essential component of their growth as writers and almost-professionals. But it must be clearly noted that all writing assignments were not seen as equally beneficial to students.

Writing assignments that don't work

Students identified an array of potential problems with writing activities, beginning with the design of the assignment itself. Assignments were recalled that were unnecessarily repetitive, offered too little credit for the work involved, were too "controlled" with little room for creativity, seemed to demand "coming up with what the teacher wants to hear" rather than real learning, and forced students into pre-specified research topics disconnected from their personal interests. But the most frequently cited problems was writing as "busywork." And this key problems, students believed, decreased the value of writing as a tool for learning.

Ted provided a working definition of busywork:

> Interviewer: What makes busywork distinct?
>
> Ted: When I don't see the purpose of it. You know. It's like "Color the ocean blue." Why? Why are you having, why are we doing it? If I can't see a purpose in it, I think it's busywork.
>
> Interviewer: Can you provide an example?
>
> Ted: Even though the journaling's good, I think some of it is busywork. And I have a problem with busywork. And some of the, some of these writing assignments. Let's see. Last semester I did for a class, we had a lot of writing to do. And it was making no sense. It was like, why do the writing?

> And then, it was like the class was over, and it just didn't fit into what the class had done.

In the case Ted cited, lack of teacher response to the writing aggravated his impression that it was assigned only to keep students busy. "The teacher did not write anything on it. She said she was too busy and gave out the grades....She didn't grade any of it, but we all got grades. So it was frustrating."

Ted's comments demonstrate two implicit but common assumptions: that the purpose of writing in a content area course should be to promote learning of course content, and that teacher engagement with student writing demonstrates the real value of writing. When he saw no relationship between the writing and learning, and the teacher demonstrated no clear interest in his work, he concluded that it had been busywork. Susan's comments about a similar assignment reveal assumptions much like Ted's. "We had this little notebook that we were just supposed to write as kind of like our little journal....That notebook never got handed in, never got looked at by anybody. It was just like a waste of time." Susan continued to explain. "I just didn't really see a point," she said. "I mean, I just feel like if I don't really learn much from it, it must not be very useful."

But many senior students reached their own conclusions about the value of particular writing assignments, regardless of the teacher's apparent interest or disinterest in the final products. Sherry described an assignment as busywork although her teacher had provided thorough response to her work.

> It was just taking things out of the book. That was what she wanted....She had an outline of exactly what she wanted, and that's what you wrote. You know. It was almost like a question-answer thing. It wasn't thinking things through and reading things and processing ideas and putting them on the paper....It felt like it was busywork. And I didn't get a lot out of it.

For Sherry, careful teacher feedback did not outweigh the intrinsically unsatisfying nature of the assignment.

Writing to learn as multi-faceted

Despite concerns about some writing assignments, students were generally enthusiastic about writing activities and felt that writing was closely connected to learning. "Learning," however, was an umbrella term, used by students to encompass a wide variety of academic, intellectual, and practical benefits that they felt were associated with writing. Students spoke with particular frequency about writing activities that led to an increased knowledge base and improved comprehension, using words like "learning," "knowing," and "understanding" to describe the effect.

Even those students who "don't really like" writing agreed that writing aids learning by expanding both the breadth and depth of what they know. Amanda was a good example. She said, "One of the cornerstones of going to college is that, you know, you're expected to write things and to understand them." She went on to explain:

> I think it's important as a student to do writing....Like I said, I don't really like it, but I don't think that I would know as much if I hadn't of done it....A lot of the stuff is so complicated that if you don't sit down and write it out, you're never going to be able to understand it. It's just not going to make any sense. So I think in that way it's, it's vital to being able to understand.

As she discussed the writing she had done throughout her academic career, Amanda differentiated between learning to write and writing to learn. "That [paper] was not necessarily learning about writing, but learning about what I was writing about. So I think, you know, I don't really mind research papers if they're things that I don't know about."

The gains in knowledge and comprehension that had been made as a result of writing, according to Amanda, were unlikely to have been realized through other avenues. Eliminating the writing, she explained, "would affect like my understanding of topics and concepts....If we had never done it, I don't think I would even try to think about it."

During Amanda's early semesters in her major, she said, students had been required to write down every step in their thinking. Now that they were more advanced, some of that could be taken for granted. "The less we knew, the more [details] we had to write. Now the more we know, the less we have to write. So, you know, if we hadn't done it, I think most of us wouldn't know as much as we do." She summed up her impression of how writing enhances understanding:

> You know the thing they say about learning. That some people are audio and some people are visual and some people are cognitive, and the more senses you can bring into it, the better you're going to understand it. If you see it and hear it and write it and speak it, you're going to be better.

For Amanda, writing was one element in a repertoire of strategies that in combination could most fully develop learning.

In addition to associating writing in general terms with learning, students described writing as related to specific kinds of learning outcomes. Among the relationships cited by study participants were writing to cause students to think, writing to help students integrate ideas and materials or to build connections, writing that encourages reflection and self-understanding or the processing of ideas, writing that helps students remember, writing that exposes students to material beyond what can be

covered in class, writing that requires students to apply new learning, and writing that involves thinking like a specialist in the discipline. Writing activities perceived as helping them develop key academic thinking skills like synthesis or integration were particularly valued by many students.

Shane explained how writing works to enhance synthesis. "If you just have the tests, then it's like so segmented. You have your first test, so it's when you study for that first test and that's over." In contrast with that segmentation, Shane said, "When we have to do writing, I seem more involved with the class...If you're doing more papers, I mean, the whole process just seems to flow." Like many other students, Shane perceived a difference in how he processed information in courses that included writing.

Andrea was also interested in the integration sometimes produced by writing assignments. "Writing should be used to tie everything together kind of." She explained what that meant in practice.

> To me, it's all a cycle sort of. They're [learning caused by class discussion and learning caused by writing] hard to compare, because I just pull a little bit from each to help maybe with a gap that I had in my reading. Someone might talk about [an idea] in class, and then I'll understand that. Or when I sit down and write about it, I'll understand it. So to me, it's kind of all just a little cycle. It ties everything together.

Carla summed up the difference in learning that results when writing is an important part of a class:

> Writing is an organization process....It's like you have to synthesize it. Process it, you know, however that works in your brain. And come up with your own words. So that's probably why the writing for me is how I learn the best. It stays with me because I've written it. It's my words....I have to be forced, though, to do it. Because nobody wants to do this stuff. You don't like it at the time. It's a chore a lot of times. But it does make you make it your own.

Writing is still work, a "chore," no matter how positive the outcome. But Carla described writing activities, even when onerous, as the impetus for the hard work of real learning.

Writing to develop professional skills

In addition to citing writing for its role in helping them think more rigorously, students appreciated writing for the opportunity it provided to practice being a professional. Molly described the attitude of faculty in her major when they make a writing assignment. "They encourage [you] to think of yourself as if you're doing this for a career. 'Think of yourself as a professional. Question. Don't just read like a parrot. Get some

insight into it.'" Carol also had completed writing assignments that required her to imagine herself as a professional. "That was probably the most valuable, because it makes you think about how you are going to handle situations and what you're going to do."

Ted, a student in elementary education, recalled similar experiences. When asked about the purpose of a particular assignment, he responded like this:

> To see, you know, it's how I would use whole language in the classroom. And how I would assess it. So that's a very beneficial paper also. We looked through our book she used for class and the readings we had throughout the semester, and we were able to choose the things that we would use. That just gave us more strategies. We have a concrete idea of what we want to do....And I also like what I'm doing this semester...Compiling, stealing the teacher's ideas. Not stealing, because she says I can take all the ideas I want. And when I see something...I'm writing it down in my journal.

I asked Ted what made those two assignments stand out in his mind as so valuable. "I can see myself using both. You know, I can see myself using both of them." Returning a final time to the subject, he concluded, "It was enjoyable because we were learning how to do things. Not learning about things."

That sense of satisfaction over "learning how" rather than "learning about" recurred in interviews with other students as well. Doug, thinking about an assignment in a capstone course in political science, expressed it like this: "I can finally apply all the lectures and reading I've done. It's not a bunch of book theory....There's some connection and actual application, and I think it enhances the course a great deal." Roberta also found that many of the writing activities she was asked to complete in anthropology "really focus on not only knowing the information, but being able to utilize the information."

Without the writing, Ellen said, her coursework in nursing "wouldn't be as useful....I don't know that I would be able to apply the things that I've learned as well." Maren, a recreation major, agreed. "You know, when you have written assignments, you're able to apply what you're learning to what you think you want to do with it." Perhaps because these students were very conscious that graduation was not very far in the future, opportunities to apply what they had learned through writing were valued.

Growth as a writer

In addition to writing that was related to learning (which could mean learning course content or learning to be a professional in a particular

discipline), students described other valid purposes for writing assignments. For example, students cited writing that had been used as a tool to facilitate other important interactions in a class, writing assigned to help students build library or research skills, writing to prepare students for future classes or advanced academic study, and writing that provides feedback for the teacher and/or the student about the learning. But students agreed that there was a second major benefit of the emphasis on writing within their majors. The simple fact that these students have written repeatedly during their college years, in a wide variety of classes and for a wide variety of teachers, was perceived as important to their development as writers.

Carla contrasted her facility with writing now with her difficulty when she first started college.

> The hours it took at the beginning, and the period I went through of over-using commas, especially. And now, like I was saying, I can write so much faster and do express myself so much better in writing than I did in the beginning.

She described writing as one of her strengths now. "Writing, for me, it comes easily. It didn't, I didn't know that it did until I started doing more of it though." She cited practice, the experience of writing, as a key factor in her growth as a writer. "I think the more you write, the more the words come easier for you, I think, over time."

Many other students agreed. "I've just gotten better at it as semesters have gone by and we've had all these different writing assignments," Rachel said. That was Barry's experience as well. "I've gotten a lot of experience from all of these classes in our major in writing. It's been helpful, and I've gained a lot of skill in writing." Barry went on to cite specific skills which he believed had been improved through the writing. "A lot of things. How to gather data. How to put data together, how to write it effectively."

Influences on a writer's development

Sherry associated her writing development with the act of writing. "I think [I improved by] just having to do it. Having to sit down and just having to physically write. Every time I write, I think I get better." Kris attributed her growth as a writer to "lot[s] of writing. Lots of writing. And I'm so glad that I've had the painful assignment to do it all." Molly was equally direct. "If you don't practice, you don't do it well. That's the bottom line."

Practice may have made these students better writers, but many of them believed that it had also helped them become better and more dedicated revisers. Ellen was an example. "I don't know what's really developed [my writing other] than just over and over again writing. Writing

papers, getting feedback and changing my style, and getting feedback again, and changing it some more." When asked how she knows what to change or how to revise, she explained. "I think just experience. Just past writing and comments from people." She went on to explain that her experiences with revision, in turn, helped her become a stronger writer.

> Figuring out how I wanted to say something. Trying to rewrite a sentence and then, "That works. That sounds better." Or if I say it this way, or rearranging the paragraph this way, or, you know, organizing the paper this way.

In fact, for Ellen and other students, the revising itself became a key factor, like practice, in their writing development.

When Trish first encountered an expectation that she revise her drafts to develop stronger finished papers, she was devastated. "My instructors constantly wanted me to revise. I was just beginning to think that my work wasn't good enough. But somehow I turned it around." She no longer harbored negative feelings about the expectation for revision. "I'm glad they wanted me to constantly revise." Today, Trish revises almost every paper in response to teacher feedback, whether required to or not, and whether the instructor will see the revised version or not. The difference in her writing, she believes, is clear.

Susan became convinced that revision was worthwhile when peer revision was part of a paper assignment. She was not impressed with the overall quality of the writing she was assigned to review. "She [the other writer] used a lot of little extra words and stuff, and I think I tend to do that, but not quite as much as she did." That experience made Susan take a harder look at her own writing. "And then once I read mine over again, I was kind of trying to, you know, revise it like I was revising hers."

Students did not chalk all of their development as writers up to the practice provided by assignments in their major. Many of them spoke of the mentorship provided by one or more teachers (not necessarily in the major and perhaps not even in college) who had encouraged, provided feedback, and simply assured the student that someone was paying attention. Several students cited the relationship between reading and writing, pointing out that much of what they strive to do as writers is related to what they admire as readers. Some students described the importance of personal motivation, effort, sheer hard work, and maturity.

But students were certain that they were growing as writers, and most agreed that the writing-intensive nature of their college experience was an important influence on that growth. Students sometimes cited sentence level improvements that had occurred, like mastering the use of a comma or semi-colon. Most of the improvements they noted, however, were more substantive. Roberta, for example, described learning to improve the "flow" of her papers. "Before I was just so scattered, and I'd tie

one thing into the first paragraph, and it would be in the third paragraph, and, you know, it never flowed. My papers flow well, I think, now." Sherry noted a similar change. "My papers now would be well developed, and I think you would find, I would guess, like I would have it more organized or, you know, that it flowed easier."

Molly saw progress in the professionalism of her writing. "I've gotten a little more polished and better." Ellen said her writing had improved in style. "Starting out sentences with 'I feel' instead of 'I think.' That was always a big one for my history teachers. 'Don't tell me what you feel. Tell me what you think.'" Camille associated her changes in style with the confidence to take risks. "My writing style has developed because I've done it more. I have taken more chances as I get older. I've tried different things."

Only one student reflected back on her years of college writing and concluded that there really were no major areas of growth to cite. Amanda explained how that happened.

> I think I came into UND a pretty strong writer....I read papers that I did in high school, and they're just as good as what I'm writing now. So I don't know if the strong background that I had in high school, you know, I had some really good English teachers in high school that really stressed writing and stuff, so.

Although she readily identified writing as one of her academic strengths, she believed that her real growth had come in high school rather than college.

Confidence as a key area of growth

One of the most important improvements in their writing that students experienced during college was simply an increase in confidence. By the time they were seniors in writing-intensive majors, these students had written extensively. Most of them had received positive feedback on their writing, along with grades that, at least in their minds, were good. The result was an increasing level of confidence in themselves as writers. Ted's experience was typical.

> When I first went to school, there's no question, there was a lot of getting by and things. Cs. And then...my first semester here I got a B on a paper, and eventually I think it just snowballed. Just got better and better. So that I did expect more of myself. And it's just a, I think, overall confidence builder.

Andrea attributed her growing self-confidence to similar causes. "I do feel confident that, maybe from feedback that I've had from others a lot this semester, that I have a lot of ability that maybe I didn't realize." She

added, "And I haven't really gotten a bad grade on a paper. I usually get As or Bs. Yeah. I think that makes you feel pretty confident." Rachel explained that teachers in her field had provided plenty of opportunities for improvement in writing and growth in confidence. "I've really gotten good at writing since I've been in this major."

Without the writing, Roberta said, "I don't think I'd be prepared to go on. I don't think I would be. When I write a paper, I'm really confident that I'm capable of writing the paper." The writing had been extremely important to her confidence and her development as a writer, Roberta thought.

> I think that it should be in every single class. I think that more teachers should spend time with the writing. I wish I even knew how to write better now. You know, maybe thinking about grad school, I wish I was totally a much better writer.

Roberta's enthusiasm for writing assignments was not matched by every student, but these students were in strong agreement that repeated writing assignments throughout their undergraduate curricula had been beneficial to them as learners and as writers.

Conclusions and Implications

Because it is so difficult to gather meaningful data about student outcome related to faculty development in WAC, I focused this study as simply and directly as possible. If students in a program complete writing activities in almost all of their content area classes, if they are asked to write in the classes of most teachers in their major department, if that writing spans a variety of forms or genres, then I assumed that WAC has been successfully implemented within that department (regardless of whether there is a direct connection between individual faculty and the WAC program). In this study I set out to discover what kinds of impact students in such a situation perceived the writing-intensive nature of the major to have on them as learners and writers.

Students were a rich source of data about what happens when writing is required across the curriculum. Participants in this study spoke at length about the writing they had encountered throughout college, how they felt about that writing, and what the writing had meant to them both at the time and across time. The willingness and ability of these students to describe their own experiences with writing certainly supported contentions that student voice can and should be included when questions about student learning are asked (Corbett & Wilson, 1995; Erickson & Schulz, 1992; Peterson & Borden, 1993). Educators often have not sought that voice, but WAC researchers and evaluators need not repeat that mistake.

Especially at the college level, students can be expected to be something of connoisseurs of education (Eisner, 1994). By that time they have accumulated a wealth of experiences and knowledge about the process of schooling and the act of learning. Their opinion may not be the final word on teaching and learning, but it is a worthwhile word. Just as student evaluations show something, although not everything, about teaching efficacy, student perspectives show something—if not everything—about learning efficacy. This study of the value of writing within a university curriculum is strengthened by being rooted in the premise that student perspectives are worth discovering.

The perspectives described here are necessarily flattened by the need for brevity. Nevertheless, the simple and overwhelming opinion of the students interviewed for this study was that writing has been and continues to be important for their growth as both learners and writers. They recognize a range of kinds of learning that have their roots in writing assignments, and they claim a confidence in themselves as writers-within-a-profession that normally is gained only through experience, painful though that might be at the time.

And some of the writing was painful. Students who participated in this study remembered writing that felt like busywork, repetitive assignments that seemed to serve no purpose, and teachers who made assignments more difficult and more frustrating than necessary. In other words, the experiences of these students were normal: some teachers had been careful and reflective about the writing assigned, but others had not. Students recognized that writing had value for them, but they also agreed that teaching with writing does not automatically have a positive and transformative effect on a class.

Nevertheless, student descriptions of learning that had been achieved were convincing and vivid. Students believed that they had learned to think, to remember, to understand, to analyze, to integrate, and to evaluate. Writing assignments became a means through which students could try on the role of a professional, learn how to apply theory to practice, and imagine themselves as full contributors within a professional community. Writing activities helped students "learn how" rather than simply "learn about."

The writing-intensive major seemed to do more for these students, though, than make them better learners. They also believed that it made them better writers, an important benefit for which students were particularly grateful as they neared graduation. "Imagine this situation," I said to students. "You're interviewing for a job that interests you and the interviewer says, 'You need to understand that there will be a lot of writing expected of the person we hire for this position.' What would you say?" Many of the students responded that they would be surprised if extensive

writing *wasn't* expected of them, especially considering the emphasis their major professors had placed on writing. But almost all of them agreed that writing was not a problem. "I know I can write well. That helps," one student responded. "I'm not saying my writing is fantastic, but I just, I'm confident enough, you know," said another. According to these students, the extensive writing they have been assigned, boring or frustrating though it sometimes seemed, is an important part of why they feel so confident about their writing today. Frequent writing assignments were expected in their majors; those who finish in a writing-intensive field seem to have gained confidence in their ability to meet that demand.

This study demonstrates the value that students perceive in a writing-intensive curriculum that goes beyond the limitations of a "WI" course requirement. Other researchers (Light, 1992; Lonoff, 1994; Hilgers, Bayer, Stitt-Bergh, & Taniguchi, 1995) previously reported that writing activities, within specified contexts and conditions, were associated with student growth either in learning or in writing. In this study of senior students in writing-intensive majors, participants described writing — *outside* of a controlled, designated "WI" course context — as beneficial to both their learning and their writing development.

This research also complicates the study of WAC by demonstrating the complexity with which students talk about "learning" and its connection to writing. The study provides evidence, as Becker (1993) suggested, that students do not experience learning as a single phenomenon. Students are able to discern meaningful differences in the kinds of learning they associate with writing, and to explain why they might grow as complex thinkers in one situation, as professionals in a second, as writers in a third, and not at all in a fourth. With such complex and subtle distinctions, it should come as no surprise that researchers have generated conflicting data when attempting to document the efficacy of WAC practices for enhancing learning, especially when those studies are done over only a single semester. This study supports the contentions of authors like Hughes and Martin (1992) and Becker (1993), who claim that better means of describing and differentiating student learning and growth are needed before useful quantitative studies can be designed. Growth in thinking and writing, as participants in this study perceive it, happens unpredictably and longitudinally. A few students cited the influence of a particular class or teacher on their development as writers, but more often it was the cumulative effect of a writing-intensive curriculum that they credited with their own growth as learners and writers.

Further research is needed to more fully explore the complex relationships between learning and writing that these students described. In addition, future studies should carefully examine the possible impact of self-selection on the efficacy of teaching with writing; it is possible, for

example, that students without an intrinsic readiness for the challenges presented might drop out of writing-intensive majors as an act of resistance. Finally, continued attention must be paid to the longitudinal nature of growth in both learning and writing. As seniors, Barry, Carla, and Roberta may feel certain that the writing-intensive major has been good preparation for the demands of the future. But it is important to understand how the confidence they feel as seniors carries over from college to graduate school or a first job.

Most of all, we must continue to include student perspectives in our studies of WAC efficacy. It is incredibly difficult to document a clear chain of causality from faculty workshop through student outcome, but it is a fallacy to assume that anything less than direct proof of causality is meaningless. As long as the ultimate goal of WAC programs remains to create a better educational experience for students, we need to hear from students about what happens to them within, because of, or in spite of our writing programs.

Appendix

Guide for First Interviews

1. Tell me something about your experiences as a student at this university.
2. How has writing fit into your student experiences?
3. Describe for me a typical writing assignment and the process you might use to complete it.
4. In addition to that typical assignment, what other kinds of writing do you do, and how might that be different?
5. How do you feel about the writing that you've been asked to do?
6. You've probably had classes that required no writing and others that did require writing. Describe for me classes of both kinds.
7. You probably have a sense of your own strengths and weaknesses as a writer. Tell me about both.
8. How have your experiences with writing affected you?
9. If I were an employer with the right kind of job to offer you, but I told you that there would be a lot of writing in this job, how would you respond?
10. If I were starting college now, thinking about majoring in your field, but worried about the writing, what advice would you give me?
11. What would have happened if your teachers had not asked you to write?
12. If you could give a piece of advice to your teachers about how they use writing, what would it be?

Guide for Second Interviews

WITH PAPERS:

1a. What do you have here?

2a. Do you mind if we look through this together? [Read teacher comments as we go.] What did your teacher mean by that?

3a. Why did you choose to bring this paper with you today?

4a. How do you feel about this piece of writing?

5a. What did you get out of doing this piece of writing?

AFTER REVIEWING PAPERS, OR FOR PARTICIPANTS WITH NO PAPERS:

1. If I were to ask the teacher of Class X why she (or he) teaches with writing, what do you think she (or he) would say?

2. Can you think of a time when you've had an "aha moment" as a writer? Tell me about it.

3. What has helped you develop as a writer?

4. How often do you get an outside reader before turning in a final draft? Did you do that at any point this semester? Tell me about it.

5. How do you think about the reader/the audience as you write?

6. What role do teachers play in your feelings about writing? What can a teacher do to make writing more worthwhile?

7. When have you done your best work in writing? Why then?

8. Is there a key person in your writing history? How was that person central?

9. Would I see a difference between writing you produced in your first year and writing that you produced this semester? What might I see? How has that change happened?

10. Do you have anything you'd like to add or clarify?

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Dealing with Resistance to WAC in the Natural and Applied Sciences

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Introduction

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The University of Missouri's Campus Writing Program (CWP) is the fourteen-year-old brainchild of an interdisciplinary task force charged with addressing the writing needs of undergraduates beyond first-year composition. Its beginnings were modest. In the fall of 1985, the Program had a director and three writing-intensive (WI) courses; it now has seven full-time employees and offers about two hundred WI courses annually. The Campus Writing Program is a thriving, nationally recognized program, and yet its assumptions continue to be challenged from time to time, particularly by faculty in the natural and applied sciences. Some of these skeptics are, perhaps, just curmudgeons who are best ignored. Other skeptics, though, embody the very critical spirit that is advocated by the Campus Writing Program and need to be taken seriously.

We WAC theorists and practitioners admire those scientists who challenge us to be accountable for our claims that writing improves thinking and is a valuable way to learn course content. Where are the hard data? What sort of credentials do WAC proponents have? How justified are we in making suggestions to experts in other disciplines? WAC research needs to answer these questions and others. To effectively meet the concerns of skeptics, though, something else is needed first. The most powerful initial response to scientists' skepticism comes not from WAC literature, hard data, or credentialed spokespersons, but from the local positive experiences of peers. Sharing these experiences—perhaps through one-to-one conversations, through brown-bag seminars, through faculty workshops, or through conferences such as the biennial National WAC conference—is necessary to encourage skeptics to risk the experiment and find out for themselves what does and doesn't work. In this essay, three Campus Writing Board members and experienced WI teach-

ers from mechanical engineering, nursing, and natural resources share their perspectives on resistance to WAC.

Faculty Resistance: An Engineer's Perspective

Aaron Krawitz, Department of Mechanical and Aerospace Engineering

Shortly after MU faculty voted to implement the WI course requirement, I participated in one of CWP's three-day workshops to introduce faculty to WAC methodology. My appreciation of WAC began when I realized, at the workshop, that the critical-thinking assignments that are so much a part of WAC parallel the process I go through in my own research. I recall being struck by the awareness that I was working professionally in one mode and teaching in another. I introduced WAC concepts into my courses gradually and later formally applied for and received approval to offer a WI course.

I take WAC to mean writing to learn, a means of promoting critical thinking about the ideas in a course and, by extension, an approach to the discipline in general. It is not learning to write, which engineering faculty would call technical writing. Although employer surveys consistently cite lack of communication and critical-thinking skills, engineering faculty and the College of Engineering have been slow to recognize the role WAC could play in developing these skills. Why is this the case and what can be done to address the resistance to using this valuable pedagogical method?

The Rationale for the Resistance

Engineering's four-year undergraduate program culminates in a professional degree. Its professional focus distinguishes it from the traditional liberal arts, and its undergraduate degree distinguishes it from other professions like law, medicine, and architecture, which are post-baccalaureate. This inherently vocational character of engineering is at odds with the liberal arts tradition, which is more intellectual than vocational. I believe this difference accounts for the fundamental origin of faculty resistance to WAC in our courses. Traditional engineering education focuses on mastering procedures and methods, while critical thinking, which is the core of WAC, deals with ideas. Some of the ways this vocational mindset manifests itself in resistance to WAC are:

The "culture" of classroom teaching is strongly entrenched: lectures, problem sets, tests, labs. Although some institutions have used new and even radical approaches, old patterns are deeply ingrained. Faculty broadly perceive them to work well: "What's wrong with the way we've always done it?"

Engineering faculty, like most faculty, are trained to be professionals in their fields, not teachers. Because of engineers' vocational

mindset, we are particularly vulnerable to a lack of respect for learning theory and pedagogical methodology: "It's 'foo-foo stuff' that belongs in the soft sciences and humanities."

The reward structure in engineering, at least at Research I universities, has a clear priority: research supported by external funding. The teaching component of tenure requirements carries insufficient weight. The same is true for the teaching component of annual evaluations; in MU's College of Engineering, WI courses are not acknowledged as being different from "regular" courses.

Perhaps most importantly, there is simply a fundamental lack of understanding about writing to learn, as encompassed in: "I'm not trained to teach writing"; "Students should learn writing in a special class"; "I don't have room for writing assignments in my course"; "Reasonable people can't disagree on diffraction stress measurements." These misperceptions can, of course, be addressed one by one: Critical thinking, not technical writing, is the point. Writing should be integrated into course content, not add-on assignments. And, if reasonable people can't disagree on the subject of diffraction stress measurements (my specialty), why did I spend a year revising a manuscript? However, while piecemeal efforts are necessary to address all these forms of resistance, a more global strategy is required to change the culture.

Dealing with the Resistance

I believe the best approach to addressing engineering's resistance to WAC is to reinforce the idea that professional development for student engineers is enhanced by WI assignments. As a profession, engineering requires critical, independent thinking and effective communication. Employers strongly support the development of these skills in prospective employees. The syllabus for my WI course includes the statement, "Engineers are called upon to present ideas, arguments, and analyses in verbal and written forms. In your jobs, you will write memoranda, reports, planning documents, justifications, etc. Because of the technical nature of engineering, and the financial and legal consequences of your work, you will probably be asked to present more ideas in writing (and verbally) than most graduates of our campus. Conventional classroom assignments do not represent the real world. Your boss won't give you quizzes, problem sets, or exams. You will deal with open-ended problems and issues. You will deal with situations which require higher-level critical thinking, not a 'plug and chug' approach." My students don't find it a hard sell.

Although employer surveys cite lack of critical thinking and communication skills, engineering faculty persist in expecting others to provide the solutions. WAC could contribute to resolving these shortcomings in our students' education. The following suggestions could assist

in dealing with faculty resistance to WAC pedagogy in the engineering curriculum.

> Make presentations to industrial advisory boards. Our engineering departments, as well as the college, have advisory boards comprised of industry representatives who can bring pressure to bear. Presentations to them about WAC's contributions to the development of critical thinking and communication skills could be very effective. These would best be done by engineering faculty, but WAC personnel could be present, contribute, or provide a separate, more global presentation.
>
> Offer WAC presentations, similar to the above, to existing faculty and student seminars.
>
> Hold a WAC workshop specifically for engineers. CWP has been trying to initiate such a workshop at MU for some time. If the college's advisory board expressed interest, it would go forward much faster.
>
> Encourage interested engineering faculty to develop a study group in which they could share pedagogical approaches, experiments, trials, and errors.
>
> Invite faculty to informal activities to discuss teaching and learning such as the brown-bag lunches and occasional short workshops sponsored by CWP.
>
> Have engineering faculty who have successfully employed WAC strategies provide examples of their syllabi and writing assignments. One of the hardest hurdles to overcome, even after a faculty member has expressed interest in offering a WI course, is creating the assignments and grading criteria.

Some engineering colleges have tried new, experimental curricula. Some have developed sophisticated multimedia course materials. But these are time- and cost-intensive. And the development of critical thinking through writing has not, in my experience, been a major focus of such efforts. Resistance persists. Given the pressure on most engineering colleges to include more procedures and methods in the curriculum, coupled with a traditional emphasis on research, engineering faculty are not likely to mount extensive curriculum revision efforts. A major appeal of WAC is that one teacher in a specific class can have an impact; it can transcend specialized curricula and unavailable or hard-to-develop methodologies.

Recasting an Engineering Assignment into WI Form

One example of how a traditional engineering assignment can be structured as a WI assignment is this one from my Composite Materials course. It is the first assignment students encounter, solvable using ideas learned in a sophomore-level course. The WI version, however, anticipates many ideas important to the nature of reinforcement in composite materials:

Conventional version:

Consider a cylinder of tungsten (W) surrounded by aluminum (Al). Let the force on the total cross-section (A = 1 cm2) be F= 2x104 N. Also, EW = 400 GPa; EAl = 70 GPa; and, AAl= 5AW.

Determine:
The forces FAl and FW
The stresses sW and sAl
The strain e

Writing Intensive version:

The Nature of Reinforcements in Composites

Consider a cylinder of tungsten (W) surrounded by aluminum (Al). Let the force on the total cross-section (A = 1 cm2) be F= 2x104 N. Also, EW = 400 GPa; EAl = 70 GPa; and, AAl= 5AW.

Determine:
The forces FAl and FW
The stresses sW and sAl
The strain e

Discuss the significance of your results. Consider the following:

How does the notion of reinforcement enter in, i.e., what is the role and effect of the tungsten with respect to the aluminum?

Explore this further. If there were no reinforcement so that the total cross-section was pure aluminum or tungsten, how would the stress and strain compare?

What are the implications for the interface between the tungsten and steel?

What roles do the stress-strain curves of the individual materials play?

Write no less than one nor more than two pages, double-spaced, 12-point font. All aspects of your paper should be prepared on a word processor, i.e., text, equations, figures, tables.

This assignment has been reasonably effective in encouraging students to think about the physical implications of the topic, as well as in introducing students to the WI process. Some "get it" quickly but most are uncertain about the open-endedness of the questions and the concept of working through ideas rather than just cranking out numbers, whose magnitudes, units, and physical meaning they often ignore or do not understand.

Resistance to WAC in engineering is understandable. But there are ways to deal with it, grounded in the highly utilitarian lessons WAC can contribute to educating practicing engineers. There will continue to be a cadre of WAC proponents among the faculty who will, even if small in number, reach many students through specific courses. High-level administrative support helps, too, as do graduation requirements. The enrollment in my elective course has increased, for example, now that MU requires that at least one WI course be in the major. Because engineering students feel more comfortable in "their own" courses, they like being able to fulfill both WI requirements in engineering even though only one must be. In short, the culture can be altered and already has been to some extent. The key to dealing with the deeper resistance, however, lies in conscientiously implementing the points above.

Multiple Sites of Resistance: A Nursing Perspective

Kay Libbus, School of Nursing

A dichotomy similar to the one Aaron describes in engineering holds for nursing as well. Nursing is still viewed by many students and their parents (and regrettably some faculty) as a vocational training program rather than an academic course of study that requires scholarly activity. The conflict between the intellectual and the vocational is ongoing in nursing education. But the clients of nursing practice are human beings, who have a profusion of physiological, psychological, and social variations and deficits. The focus of nursing practice is to assist clients in overcoming these deficits. By its very nature, nursing practice must be considered a creative activity. It cannot be accomplished by protocol or formula. Judgment is required. The algorithmic approach to nursing practice is seldom effective or appropriate. The nursing process—assessment, planning, intervention, and evaluation—demands critical thinking and the ability to synthesize and analyze information. WAC philosophy and WI courses offer a powerful, if partial, means for educating students to be sound practitioners of nursing.

Student Resistance

Multiple sites of resistance exist, though. First are the nursing students whose petitions to waive the required WI nursing course I re-

view as chair of nursing's admissions and progression committee. Of course, I deny them. Even though nursing attracts many "nontraditional" students, most are recent high school graduates who are not entering the clinical major as independent, autonomous thinkers. And while the program is highly competitive and the students unusually bright, they are also very concerned about grades. They come to prize courses in which they can memorize information and, in turn, feed it back on objective examinations. Students prefer straightforward, somewhat simplistic questions. Few students encounter messy, open-ended problems in their early coursework (apart from the prerequisite WI course); they do not yet know that the majority of nursing practice requires solving complex problems that have no single right answers.

Additionally, most students come to the clinical nursing major with well-established career goals; many have preselected critical and emergency care, which demands sophisticated psycho-motor skills. Students seem willing to tolerate classes which teach the theory and performance of these skills, but they have little patience for less well-defined coursework. They do not anticipate facing the ethical or legal issues while delivering this care, nor do they consider the research necessary to support such highly sophisticated care.

Moreover, because nursing students go through the program as a class, they come to know one other well and develop their own "culture." While this sense of community is positive in many ways, it contributes to a resistance to doing things "differently" and to learning in new ways. And finally, although nursing is changing, it is still a female-dominant profession in an uneasy relationship with the still male-dominant medical profession. This exacerbates many nursing students' progress in coming to terms with authority, autonomy, and independent thinking.

Curricular, Faculty, Institutional, and Professional Impediments

MU nursing students take the required nursing WI course their junior year, when they are already carrying a heavy course load and are simultaneously involved in their first clinical experiences. Their desire for expediency is somewhat understandable and the addition of a WI course confuses and annoys them. They're not sure they want to learn research methods and legal and nursing ethics—and they are quite sure that they do not want to write about them.

In general, writing is limited in undergraduate nursing education. No major papers are required at MU until the capstone experience in the final semester, and even that is a group effort with no drafts or revisions. Moreover, because clinical charting is strictly formulaic (e.g., SOAP, for subjective, objective, assessment, plan) and critical-care charting is increasingly done by exception (nothing is charted if there have been no

changes during the shift), nursing students are actually discouraged from writing.

Another source of resistance to WAC derives from a disciplinary and professional issue within nursing—objective examinations. The national licensure exam required for all types of RN programs, the NCLEX, is objective. Students do not see WI courses as effective in preparing them for the NCLEX as traditional courses are. Many nursing faculty believe their responsibility lies in helping the students pass the examination, preferably on the first attempt; their resistance, too, stems from believing that WI courses do not contribute to preparing for the exam. Moreover, one of the evaluative parameters for schools of nursing, including MU, is the percentage of students who pass the NCLEX.

As a result, nursing students become well schooled in taking objective exams and, as a further consequence, are misled into assuming that clinical practice can be accomplished by finding the single "right" answer. Students' resistance to independent thinking thus inhibited, the issue is further compounded because students receive overly simplified clinical experiences that facilitate quick learning. Rarely do students encounter truly complex client care problems or need to manage care for multiple clients.

Institutional factors also complicate teaching WI courses. A number of MU's tenure-track nursing professors are still completing their doctorates. While some of these faculty may be philosophically aligned with the goals of WAC, many have practical conflicts with the time demands of teaching. When those time conflicts are intensified, it is tempting to have graduate students assume a disproportionate share of evaluating student papers. Faculty lose control of the grading process, which may lead to inadequate or inappropriate feedback to students. This is particularly problematic when no norming is done and graduate teaching assistants grade differently; student confusion, resentment, and increased resistance result.

Despite these multiple sites of resistance and impediments—all of which must be acknowledged and dealt with—WAC and WI courses offer a way to bring more critical thinking and open-ended problem-solving into the nursing curriculum. WI courses are a means of propelling nursing students from positions of relative passivity to positions of greater autonomy in thinking and, we hope, in practice. A number of the suggestions Aaron outlines might apply for nursing as well as engineering, and it would behoove us to try them. At the very least, our department continues its custom of encouraging nursing faculty to attend CWP's WAC workshops, and we continue to support WAC's goals for our students' learning.

Resistance as a Symptom of a Larger Malady

Mark Ryan, Fisheries and Wildlife

I see science faculty's reluctance to become involved with WAC as a specific expression of a more comprehensive problem—resistance to Teaching Scholarship. College and university instructors hesitate to use writing-to-learn approaches for the same reasons they are reluctant to adopt any of several innovative pedagogies that promote active learning and critical thinking. Faculty are slow to abandon traditional teaching techniques like lectures, unrevised term papers, and objective examinations and to use discussion-based instruction, collaborative learning groups, or problem-based learning instead.

To overcome this resistance, we first must grapple with the underlying resistance to Teaching Scholarship. To be sure, there are specific forms of resistance to using writing-to-learn, just as there are specific roadblocks to using, say, role-playing in the classroom. But, addressing the fundamental resistance to a myriad of cutting-edge pedagogies is essential to gaining widespread acceptance of WAC.

Is Teaching Scholarship?

Perhaps the broadest reason for resistance to Teaching Scholarship is that many faculty simply do not perceive teaching as a form of scholarship. Ernest Boyer's *Scholarship Reconsidered: Priorities of the Professoriate* (1990) interprets the commonly accepted paradigm of academic scholarship as first, and most essentially, research in a discipline. Teaching and service are functions that grow out of scholarship but are not part of it. Boyer shows, however, that knowledge does not necessarily develop in this hierarchical manner. Rather, he notes, practice can lead to theory as well as the reverse, and teaching can shape both practice and research. He argues that the work of modern professors has four separate but overlapping functions: the scholarship of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching. Boyer believes that the work of academics is consequential only when it is understood by others. Teaching, he says, is scholarship when it both educates and entices future scholars. He sees teaching as a dynamic endeavor that involves "... all the analogies, metaphors, and images that build bridges between the teacher's understanding and the student's learning" (page #?).

Boyer believes that teaching which embodies creative pedagogy, stimulates active learning, and fosters creative, critical thinking provides a basis for future learning and growth. Far more than merely transmitting information, he holds, teaching should transform and extend knowledge. In some academic sectors, Boyer's ideas have already been debated, reshaped, adopted, or rejected. But for many of our colleagues in the sci-

ences and engineering, his precepts remain unknown. Boyer's ideas have not even been introduced to the debate. Bringing the scholarship of teaching to light is an essential first step in reducing resistance to new pedagogies, especially WAC.

The Many Forms of Resisting Teaching Scholarship

Traditionally, teaching has been the sole purview of the practitioner. Determining course content, style of delivery, exam formats, and the like has been sacrosanct. Certainly, curricular issues are dealt with at department, college, and campus-wide levels, but specific course design is usually left to instructors. Pressure to adopt new methodologies seems to infringe on the personal space and power many college faculty have come to expect. This is especially noticeable for WI courses at our institution. Despite CWP's focus on faculty volunteers, teachers are occasionally assigned to teach WI courses. Without intellectual buy-in, resistance by "delegated" faculty (and those who know them) is assured and intensified.

For some faculty trying new pedagogies, the loss of power is profound. In *The Skillful Teacher* (1990), Stephen Brookfield notes that classical lecture-based instruction—where teachers "give" students knowledge—maintains teachers as powerful, authoritarian figures. Abandoning teacher-based learning for student-based learning (in such formats as peer-teaching or writing-to-learn) requires teachers to give up power, to no longer be "the sage on the stage."

Scholarship in any form necessitates some type of evaluation or peer-review. In Teaching Scholarship, evaluation is commonly perceived as a threat. Even faculty accustomed to peer-review of research are uneasy or intimidated by critical examination of their teaching. Many faculty who have spent decades training as research scholars, usually with mentors, have honed their teaching methods in an isolated, nonmentored environment. To have years of unevaluated effort suddenly open to scrutiny is ego-threatening. MU faculty express grave concerns about teaching peer-review. If critiques of teaching scholarship are left to administration or to a faculty "teaching elite," true peer-review will not occur and opposition among faculty will solidify. Engaging all faculty in the process of developing equitable, consistent peer-review procedures for all forms of teaching will aid in overcoming resistance to Teaching Scholarship.

The difficulty inherent in adopting new teaching styles and having them exposed to peer critique is exacerbated by the real or perceived lack of know-how by teachers. Many of my colleagues in the sciences and engineering complain that they are not trained to teach writing. At MU, faculty attend WAC workshops prior to teaching WI courses. Such training is critical to overcoming fears of inadequacy. For most faculty who

have attended such workshops, WAC is less about learning to write than it is about learning discipline-based content. It's important to remind faculty that, as research journal reviewers and editors and thesis evaluators, they regularly "teach" the writing standards of their professions. It's also important to have a well-staffed writing center, so faculty are reassured that a back-up support system is available for them and their students when issues arise that they aren't comfortable with.

By far the most pervasive and problematic reason for resistance to Teaching Scholarship is the lack of rewards associated with such scholarship. Too often administrators are blamed for lack of reward for teaching excellence. To be sure, administrators can be naive about teaching scholarship. But in faculty-based tenure-and-promotion or merit-salary review processes, faculty's valuation of teaching scholarship is often as low or worse than that of administrators. Working to overcome this enormous roadblock is paramount to addressing the resistance WAC and other innovative pedagogies face. WAC programs and their associated faculty must promote the recognition, documentation, and yes, quantification of teaching scholarship. Assisting faculty with the development of effective teaching portfolios, promoting peer-review of writing assignments (or other learning techniques), and developing juried competitions for writing assignments (similar to the juried shows artists and musicians rely on to document their performance scholarship) are options that should be pursued vigorously by those committed to enhancing Teaching Scholarship.

Beyond the use of formal evaluation in the academic review process, such procedures can also form the basis for institutional recognition for Teaching Scholarship. Never underestimate the ego of an academic! Prestige is a powerful motivator. Even without tangible rewards (e.g., above-average salary increases), many faculty will be less resistant to adopting new teaching methods if they see positive recognition of their efforts as a real possibility. With recognition and accumulated prestige will come greater acceptance of Teaching Scholarship throughout all of higher education. And that, in turn, will transfer back into the tangible rewards currently lacking.

Progress in reducing resistance to Teaching Scholarship, including WAC inquiry, will be slow. Universities and colleges, like other bureaucracies, change when pressures to do so are seen as important to protecting the future of the bureaucracy. Pressure from within, such as widening the celebration of teaching scholarship, is important. But pressure from outside the academy often produces swifter change. We must identify the beneficiaries of teaching scholarship in general, and WAC specifically, and encourage those beneficiaries to articulate their stake in promoting and rewarding such scholarship. Alumni, employers, parents (voters!), and legislators routinely emphasize the overwhelming importance of qual-

ity instruction in higher education. Their demands to develop, improve, and recognize teaching scholarship could go a long way to overcoming internal resistance to new pedagogies and their application in our institutions.

Future Considerations

Martha A. Townsend, English, and Director, Campus Writing Program

The nature and sources of resistance to WAC philosophy are daunting. The issues that Aaron, Kay, and Mark raise are not easily resolved; in fact, these issues constitute many of the "traps for the unwary [that] usually leads to an unimagined fiasco" which Ed White cautions about in *Teaching and Assessing Writing* (1994, 161). But as Marty Patton suggests in her introduction, some of these challenges are appropriate. And some of the issues don't so much require a once-and-for-all resolution as they do continual negotiation through institutionally supported channels of communication. What are some of the ways these channels operate that have allowed WAC to achieve its fourteen-year longevity at MU?

Aaron alludes to the need for high-level administrative support. Remarkably, MU's Program has benefitted from generous administrative support from the outset, both philosophically and financially. At the same time, however, "ownership" of the program has always rested in the hands of faculty. A dedicated, conscientious core of eighteen faculty—including Aaron, Kay, and Mark—comprises the Campus Writing Board, the policy-making body that peer-reviews WI course proposals. Made up of faculty representing all sectors of the university, the Board ensures flexibility in WI guidelines so that various disciplines can meet their own needs; however, the Board also maintains the integrity of the WI requirement by establishing parameters for rigorous instruction.

Also, Board members and CWP staff understand that WAC and WI courses are integrally tied to four of MU's central missions: undergraduate education, graduate education, faculty development, and research. We work to articulate and reinforce those missions in a variety of ways. Examples include the WAC workshops and informal activities mentioned above; letters of support based on WI teaching for faculty nominated for teaching awards; nominations of graduate teaching assistants (who work with WI faculty) for the Graduate School's annual teaching awards; support for faculty and graduate students to attend professional conferences when they are presenting WAC- and WI-related papers; a CWP-developed and -taught "Computer Information Proficiency" course (titled "Composing with Technology") for MU's General Education Program; and a campuswide publication featuring these initiatives as well as innovative WAC and WI accomplishments.

Some preliminary signs of encouragement are appearing on the national horizon. The third National WAC Conference in Charleston (where Aaron's, Kay's, and Mark's presentations were first made) drew that meeting's largest and most enthusiastic participation ever. Methods for evaluating Teaching Scholarship should receive new emphasis with the release of *Scholarship Assessed: Evaluation of the Professoriate* which continues Ernest Boyer's earlier ideas. In addition to having held six successful annual conferences, The American Association for Higher Education's Forum on Faculty Roles and Rewards has released a series of documents, titled the "New Pathways Working Papers," many of which tackle the national-level problems Mark alludes to in his remarks. And organizations like TIAA-CREF are finding ways to recognize innovative general education programs, as they did with MU in 1997, through the prestigious Hesburgh Award. Such awards aid institutions in publicizing their undergraduate educational reforms which, in turn, increases public awareness and public support for continued improvement.

But those national signs of hope are preliminary. And whatever promise they hold seems very far removed from the day-to-day resistance WAC faces on our campuses as we do our work. As long as colleagues, departments, and administrators can continue to maintain the critical spirit and collegial negotiation that has characterized MU's program so far, we remain optimistic.

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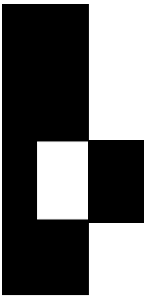

The Brigham Young University Advanced Writing Program

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History and Philosophy

In the mid-1970s, Brigham Young University began to change its composition program from a traditional two-semester sequence in the first year, the second semester of which was devoted to research writing. The new "vertical" program, which was phased in gradually starting in 1976, required a one-semester writing course in the first year and an advanced writing course in the junior year. The thinking behind this change twenty years ago was that students would profit more from a research writing course after having taken several courses in their major than they did in the first year when, often, they hadn't even chosen a major. At first, there were only three advanced courses, all offered in the English Department and organized by what were then thought to be important modes of writing: technical writing, advanced expository writing, and critical and interpretive writing. Over the years since 1976, these three advanced courses have evolved and two more have been added.

There are now five advanced writing courses offered in the English Department, most of which are designed to meet the needs of different groups of majors and organized around the idea of writing in the genres of various discourse communities. In addition to these five, there are advanced writing courses offered by the Art Department, the School of Business, the College of Engineering, the School of Music, the Chemistry Department, the History Department, the Philosophy Department, and the Political Science Department for their respective majors. These new courses are indicative of a slow but persistent trend toward "true" writing-in-the-disciplines courses rather than a program based solely in the English Department. This description will focus mainly on the advanced courses offered in the English Department, however, since most students at BYU still earn the required credit in these courses.

The English Courses and Students

At present the five advanced writing English courses are Technical Writing, Writing in the Social Sciences, Writing about the Humanities,

Writing for Elementary Education Teachers, and Persuasive Writing. Approximately 4,500 students per year are taught in about 200 sections of these five courses. More than fifty percent of the sections are offered in Technical Writing and Writing in the Social Sciences. As can be seen in the titles of the courses, Persuasive Writing retains the venerable approach of teaching writing that falls in the rhetorical tradition, preparing students to participate in public discourse about civic issues. (It is also the course that serves the smallest number of students.) The other four courses prepare students to do research and write in genres that are typical for the fields they are majoring in and the careers they are preparing for. The course for future elementary school teachers is decidedly unique in being aimed at only one narrowly defined group of majors. It was created over ten years ago at the request of the School of Education, which wanted a course to help future elementary teachers learn not only write well and confidently themselves but also learn about successful methods of teaching children to write. Administration and Teachers In 1994, the university established a University Advanced Writing Committee, composed of professors from each college, that sets standards for all advanced writing courses, whether they are taught in the English Department or elsewhere. The Committee periodically reviews all courses, and it offers annual preservice and inservice training to teachers. The review standards include the following:

- Instruction in writing, not mere assignment of writing, as a primary emphasis in the course.
- Teacher certification through documenting past experience teaching writing, taking an approved course or seminar, or completing an approved internship with an experienced teacher.
- Evaluation of student writing primarily by the professor, not teaching assistants. • Focus on writing processes used within the discipline, not just on products.
- Writing for audiences inside the discipline, using the genres, forms, styles, and documentation conventions of the discipline.
- Writing for audiences outside the discipline.
- Significant emphasis on research writing, including gathering data from primary and secondary sources, evaluating data critically, and synthesizing information.
- Class size of 20 students or fewer per certified teacher.

Courses proposed for advanced writing are reviewed by the University Advanced Writing Committee and, if they meet the standards, recommended for ratification to the Dean of General Education. Departments that sponsor the courses are then responsible to see that the courses

continue to meet the criteria in their curriculum and in the selection of teachers.

The five advanced courses in the English Department are under the supervision of a Coordinator of Composition and Associate Coordinator, who are appointed by the English Department Chair. These two coordinators, both full-time faculty with credentials in rhetoric and composition, select most of the teachers for the courses. But each course also has a faculty member assigned to lead the teachers of that course in coordinating the ordering of textbooks, scheduling and holding meetings or otherwise communicating with teachers about the course, visiting classes if asked to, and generally charting the direction of the course.

Between 10 and 15 percent of the sections of English advanced writing each semester are taught by full-time faculty. About 75 to 80 percent are taught by part-time faculty. The remaining sections are taught by a few highly selected MA students (BYU has no PhD program in English). Although a few part-time teachers have been a part of the advanced writing faculty for more than 20 years, in about 1985 the number of new part-time hires really began to grow because the number of students majoring in English soared, and full-time faculty had to devote more and more of their time to teaching courses in the major, rather than general education writing courses, as they had once done. The number of part-time faculty is now above 30 regularly employed teachers, each of whom generally teaches two sections per semester (their assignments sometimes include other courses than advanced writing).

Professional Development

The part-time faculty generally hold MAs in literature, and many of the older ones did not receive any special training in the teaching of writing as part of their graduate education. Concerned that they might remain ignorant of the exciting developments in the field of rhetoric and composition, as the Coordinator of Composition in 1990, I sought funding for a month-long summer seminar to give the part-time faculty a crash course in the history of rhetoric and new developments in composition pedagogy (see Hansen). Funding for this seminar was provided by the Dean of General Education with matching funds from the English Department and College of Humanities. This seminar became the first of many professional development seminars, as the same funding sources were again successfully tapped for professional development seminars in subsequent years. Finally in 1997 a regular budget was established to ensure the longevity of this professional development seminar. The funds have been used mainly to pay the part-time faculty stipends for participating, to purchase books and journal subscriptions, and, on occasion, to bring speakers to campus. Recent seminars have focused heavily on using

computers and other technologies in the teaching of writing. These seminars have greatly enhanced the knowledge, professionalism, and morale of the part-time faculty and done much to make them feel they are valued colleagues in the English Department. Besides continuing to sponsor the seminars, the current coordinators of the composition program have created printed guides for teaching the various advanced writing courses and for teaching in the computer classrooms. They have also led the part-time faculty in developing teaching portfolios.

Besides part-time faculty, a few students from the MA program in English teach advanced writing. Normally MA students support themselves by teaching first-year composition, but some desire the experience of teaching advanced writing to broaden their knowledge and experience prior to applying to graduate school or for jobs as teachers and writers. The current system of training MA students to teach an advanced writing course is to assign them to intern with an experienced mentor teacher in one of the five courses. During the time of the internship the MA student is also enrolled in a graduate course on theory and methods of teaching advanced writing. Following this semester of practical and theoretical training, each graduate student usually teaches one or more sections of advanced writing alone, though each generally seeks advice and help from the mentor teacher as questions and problems arise.

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