Student Perceptions of the Value of WAC

Joan I. Hawthorne
University of North Dakota

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 aggra-
vated 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 relation-
ship 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 appar-
ent interest or disinterest in the final products. Sherry described an as-
signment as busywork although her teacher had provided thorough re-
sponse 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 intrinsi-
cally 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, intellec-
tual, 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?

References

Ackerman, J. M. (1993). The promise of writing to learn. *Written Communication, 10,* 334-370.

Beadle, M. E. (1989, March). *Evaluating writing across the curriculum: Struggles and insights.* Paper presented at the meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 316 562)

Becker, R. (1992). *Evaluation of using writing-to-learn in Global III, 1990-1992.* Bayside, NY: Queensborough Community College of CUNY, Queensborough Institute for Writing and Critical Thinking.

Becker, R. (1993, Fall). Roundtable 3: Do students learn better by writing? *Writ/Talk, 9,* p. 1-2.

Bureau of Educational Services and Applied Research (1993). *Internal evaluation of the Writing Across the Curriculum project at the University of North Dakota: Second year - 1992.* Grand Forks, ND: University of North Dakota.

Coker, F. H. & Scarboro, A. (1990). Writing to learn in upper-division sociology courses: Two case studies. *Teaching Sociology, 18,* 218-222.

Corbett, D. & Wilson, B. (1995). Make a difference with, not for, students: A plea to researchers and reformers. *Educational Researcher, 24*(5), 12-17.

Day, S. (1989). Producing better writers in sociology classes: A test of the writing-across-the-curriculum approach. *Teaching Sociology, 17,* 458-464.

Delamont, S. (1992). *Fieldwork in educational settings: Methods, pitfalls, and perspectives.* Washington, DC: The Falmer Press.

Eisner, E. W. (1994). *The educational imagination: On the design and evaluation of school programs* (3rd ed.). New York: Macmillan.

Erickson, F. & Schultz, J. (1992). Students' experience of the curriculum. In P. W. Jackson (Ed.). *Handbook of research on curriculum* (pp. 465-485). New York: MacMillan.

Glesne, C. & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction.* White Plains, NY: Longman.

Goetz, D. (1990, August). *Evaluation of writing-across-the curriculum programs.* Paper presented at the meeting of the American Psychological Association, Boston, MA. (ERIC Document Reproduction Service No. ED 328 917)

Gorman, M. E. (1986). Developing our research model. In A. Young & T. Fulwiler (Eds.), *Writing across the disciplines: Research into practice* (pp. 33-41). Boynton-Cook: Portsmouth, NH.

Hilgers, T. L., Bayer, A. S., Stitt-Bergh, M., & Taniguchi, M. (1995). Doing more than "thinning out the herd": How eighty-two college seniors perceived writing-intensive classes. *Research in the Teaching of English, 29,* 59-87.

Hughes, G. F. & Martin, G. R. (1992, April). *The relationship between instructional writing experience and the quality of student writing: Results from a longitudinal study in the Minnesota Community College System.* Paper presented at the meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 345 276)

Hughes-Wiener, G. & Jensen-Cekalla, S. K. (1991). Organizing a WAC

evaluation project: Implications for program planning. *New Directions for Community Colleges, 19,* 65-70.

Kerr, N. H. & Picciotto, M. (1992). Linked composition courses: Effects on student performance. *Journal of Teaching Writing, 11,* 105-118.

Light, R. J. (1992). *The Harvard assessment report: Second report.* Cambridge, MA: Harvard University Press.

Long, G. A., Straquadine, G., & Campbell, W. F. (1992). Plant science alumni rate their education based upon entry-level professional experience. *Journal of Natural Resources, Life Science Education, 21,* 34-36.

Lonoff, S. (1994, March). *When students assess WAC: What works?* Paper presented at the Conference on College Composition and Communication, Nashville, TN.

McCulley, G. A. & Soper, J. A. (1986). Assessing the writing skills of engineering students: 1978-1983. In A. Young & T. Fulwiler (Eds.), *Writing across the disciplines: Research into practice* (pp. 109-135). Portsmouth, NH: Boynton/Cook.

McMullen, J. Q. & Wellman, J. D. (1990). Writing programs outside the English department: An assessment of a five-year program. *WPA: Writing Program Administration, 14*(1-2), 17-25.

Moore, R. (1993). Does writing about science improve learning about science? *Journal of College Science Teaching, 22,* 212-217.

Peterson, T. W. & Borden, M. W. (1993). *Student perspectives on orientation: The use of qualitative research in evaluating Freshman Orientation.* Raleigh, NC: North Carolina State University. (ERIC Document Reproduction Service No. ED 354 794)

Phelps, A. J. (1994). Qualitative methodologies in chemical education research: Challenging comfortable paradigms. *Journal of Chemical Education, 71,* 191-194.

Russell, D. R. (1992). American origins of the writing-across-the-curriculum movement. In A. Herrington & C. Moran (Eds.). *Writing, teaching, and learning in the disciplines* (pp. 22-42). New York: Modern Language Association of America.

Schumacher, G. M. & Nash, J. G. (1991). Conceptualizing and measuring knowledge change due to writing. *Research in the Teaching of English, 25,* 67-96.

Seidman, I. E. (1991). *Interviewing as qualitative research: A guide for researchers in education and the social sciences.* New York: Teachers College Press.

Selfe, C. L., Gorman, M. E., and Gorman, M. L. (1986). Watching our garden grow: Longitudinal changes in student writing apprehension. In A. Young & T. Fulwiler (Eds.), *Writing across the disciplines: Research into practice* (pp. 97-108). Portsmouth, NH: Boynton/Cook.

Smithson, I. & Sorrentino, P. (1989). Writing across the curriculum: An assessment. *Journal of Teaching and Writing,6,* 325-342.

Thompson, M. (1989). *The effect of a writing across the curriculum program on students in an American history class: Report on an empirical study.* Master's thesis, University of Oklahoma, Norman, OK. (ERIC Document Reproduction Service No. ED 310 399)

Vierra, A. & Pollock, J. (1992). *Reading educational research* (2nd ed.). Scottsdale, AZ: Gorsuch Scarisbrick.

Walvoord, B. E. (1996). The future of WAC. *College English, 58,* 58-79.

Young, A. (1994). The wonder of writing across the curriculum. *Language and Learning across the Disciplines, 1*(1), 58-71.

Young, A. & Fulwiler, T. (1986). *Writing across the disciplines: Research into practice.* Portsmouth, NH: Boynton/Cook.