

UW SOUL

University of Washington Study of Undergraduate Learning
Office of Educational Assessment and Office of Undergraduate Education

Please do not distribute
WRITING AT THE UW: THE FIRST YEAR
Catharine H. Beyer, Gerald Gillmore, Matthew Baranowski, Naomi Panganiban
03-03 February 2003

“The most difficult writing I’ve done is probably the history papers I’m writing now, just because I don’t know how to write a history paper. I know how to analyze books and novels, but I don’t know how to include the historical context and other people’s opinion.”

Most freshmen and many transfer students come to the UW with little understanding of the ways that writing purposes, practices, and conventions vary from discipline to discipline. This lack of understanding can be challenging, because often students find that they must learn to write effectively in several disciplines simultaneously. A freshman who is assigned papers in a sociology class, a chemistry course, and a literature-based composition class (English 111), for example, may find herself having to figure out some of the following:

- The purposes for writing—and, hence, her paper—in the discipline. (Examples: to test a theory against a case in sociology, to report on a chemistry experiment in such a way that it is replicable, to construct a credible text-based argument on meaning and meaning-making in English.)
- What counts as a “thesis” or statement of purpose and where it belongs in a paper in the discipline. (Examples: a hypothesis in sociology and chemistry that can be disproven or a thesis that makes an interpretative assertion that can be supported by literary texts in English.)
- The kinds of context typically provided in the introduction for each discipline. (Examples: statistics on the extent of the “problem” in sociology; implicit theory in chemistry; a quotation from philosophy for English.)
- What is “arguable” in the discipline and what is not. (Examples: sociological, as opposed to psychological, causes of anorexia in sociology; causes of error production in a chemistry experiment; opinions with no textual anchor in English.)
- The preferred organizational patterns or formats for each discipline. (Examples: essay form with headings for sociology; scientific lab report format for chemistry; “logical” organizational pattern for English that is consistent with what is being argued.)
- What counts as evidence in the discipline and whether and how it is graphically displayed. (Examples: statistical evidence and credibility of the sources of data in sociology displayed in charts and graphs and explained in the text; quality of and results from the experiment(s) in chemistry displayed in charts and graphs and referred to briefly in the text; quotations from literary texts in English.)
- Preferred citation practices in each discipline. (For example, APA, MLA, and other formats.)

Particularly challenging for undergraduates is that they must learn “what counts” as good writing in each discipline at the same time that they are applying those discoveries in papers that may constitute a major

portion of their final grades in their classes. This is similar to asking students to demonstrate knowledge of cultural codes, with only implicit orientation to those cultures. That undergraduates—particularly those in their first year—are able to pull off such feats regularly and with success quarter after quarter, is something that Carmen Werder, Director of Interdisciplinary Programs at Western Washington University, describes as “nothing short of miraculous.”

These miracles and what calls them into being are the subjects of this report. The report aims to shed light on the writing experience of undergraduates as they move through the writing required in their first year at the UW. Based on that description we make a few broad recommendations about writing instruction at the end of the report.

The information presented in this report primarily makes use of interview and survey questions that students participating in the UW Study of Undergraduate Learning (UW SOUL)¹ answered about writing during their first year at the UW. In addition, the report briefly draws on two studies of undergraduate writing conducted for the Office of Educational Assessment in 1989-91 and 1994-96.² The first of these two earlier studies of freshman and sophomore writing tracked the writing of approximately 100 students, and the second followed the writing of about 50 students as both groups moved through their first two years of college, the years when they were said to be getting a “general education.”³

This report is divided into three main sections, as follows:

- First, we provide an overview of the methods used to collect and analyze the data presented in this report.
- Second, we focus on what we know about students’ writing experience in their first year at the UW. This section is divided into the following subsections:
 - ¾ How much did students write?
 - ¾ Where did students write?
 - ¾ Challenging and easy papers--how do students describe their most challenging writing in their first year at the UW and how do they describe their easiest? What can we conclude from these descriptions?
 - ¾ How did writing at the UW differ from students’ previous writing experience?
 - ¾ What can students’ descriptions of challenging writing tell us about the differences between previous writing experience and writing at the UW?
 - ¾ Do students feel they have improved as writers in their first year at the UW?
 - ¾ What do students say they have learned about writing by the end of their first year?

¹ The UW Study of Undergraduate Learning (UW SOUL) is a longitudinal study, tracking approximately 300 students through all their years in college. The students are divided into two groups. The first group of about 140 students is interviewed at entry and annually thereafter, includes documents from their coursework and a reflective essay in their portfolios annually, participates in yearly focus groups, responds to open-ended email questions each quarter, and completes web-based surveys quarterly. The second group of about 160 students responds to the open-ended email questions and completes the web-based surveys each quarter. Both groups are paid for their participation.

² Beyer, Catharine and Graham, Joan, *The Freshman/Sophomore Writing Study, 1989-91*, OEA Report, 1992; Beyer, Catharine, *The Freshman/Sophomore Writing Experience, 1994-96*, OEA Report, 97-2, 1997.

³ The two studies used the same methodology. Students were randomly invited to participate and given general studies credit for their participation. Researchers interviewed students quarterly and collected students’ course syllabi and all the papers³ students had written for all the courses that had assigned papers. These documents, as well as reflective essays³ students wrote at the end of each year and student transcripts, were gathered into portfolios for each student. A small sample of the portfolios was analyzed by a group of 18 faculty members in three separate workshops.

- Finally, we present conclusions and their instructional implications.

This report is to be considered one mark on a continuing path. The UW SOUL is ongoing; not all data on writing have been analyzed. For example, we hope to be able to add new information to this analysis at a later time that includes an assessment of students' portfolios⁴ and reflective essays.

Overall, this report shows the following:

- The amount of writing students do in their first year at the UW is nearly the same as the amount of writing first-year students reported doing five years ago.
- In addition to writing papers, students at the UW are required to write short pieces that are usually designed to keep students actively engaged in course content.
- Students' most challenging writing at the UW is argumentative writing, and they have had little previous writing experience or instruction with the kinds of argument that they are required write at the UW. This lack of experience and instruction in argumentative writing interacts and overlaps with students' difficulty navigating among disciplinary practices. The fact that writing is shaped by disciplines is news to freshmen, as well as to some transfer students. They often become aware that writing demands differ from one discipline to another by confronting a set of "requirements" for a specific paper assignment in history, philosophy, or chemistry, for example, that are foreign to them. Often rather than seeing these requirements as part of the way the discipline creates knowledge, students regard the requirements or assignment demands as emerging from the whims or preferred styles of their individual TAs or professors.
- Faculty assigning papers should be aware that the kinds of papers students consider challenging ask students to make arguments consistent with arguments in the discipline assigning them and to use resources outside themselves as support. In addition, challenging papers require students' time and thinking, are carefully graded, and are likely to have moved through a draft/feedback/revision process.
- First-year students generally find shorter papers easier to write than longer ones, and they often do not spend much time or effort writing papers that are fewer than four pages long.
- It appears that students have few opportunities to take papers through a draft/feedback/revision writing process after their freshman year.
- Students believe their writing improves in their first year primarily along the lines of writing in the disciplines and argumentative writing, more often attributing the improvement to "practice," rather than to "instruction."

⁴These portfolios contain samples of what students regard as their best and worst pieces of writing, as well as examples of what they consider to be the most complex thinking they have done each year. They also contain students' reflective essays.

METHODS

This report makes use of UW SOUL participants' responses to interview questions and survey questions, described below. A complete discussion of sample selection methods and sample representativeness can be found at <http://www.washington.edu/oea/0104.htm>. There are differences between the UW SOUL population and the larger entering class of 1999, but those differences are small.⁵ Therefore, we can generalize findings from this group to the broader UW population with some degree of confidence.

Interview Responses

In this report, we make use of two sets of interviews with UW SOUL participants, one conducted when students entered the UW in Fall 1999 and the other conducted at the end of students' first year, in Spring 2000. We interviewed 143 students in Fall 1999 and 134 of those students in Spring 2000. Students either came to our office in Schmitz Hall or chose to be contacted by phone for the hour-long interviews. Using students' aliases as identifiers, interviewers entered students' responses to questions directly into an Access database during interviews, preserving students' actual words as much as possible. Table 1 shows the interview questions that were examined in our analysis for this report. Data from the fall 1999 interviews will be used for comparative purposes only. A report on Question 1 from fall interviews can be found at <http://www.washington.edu/oea/rptssoul.htm>.

Interview responses for each question were analyzed using an inductive process in order to generate the categories we include in this report. More than 800 responses were analyzed overall. Once we had generated 15-20 categories from students' responses to a question, we coded all responses into categories, when possible, while continuing to preserve idiosyncratic responses. As with any qualitative analysis that attempts to quantify results, the challenge in this kind of analysis is to identify categories of response

TABLE 1: UW SOUL Interview Questions about Writing

Fall 1999	Spring 2000
What was the hardest paper you wrote in high school or community college? Please describe it to me.	<ol style="list-style-type: none">1. In what courses did you write papers this year and how many papers did you write in each of those classes?2. Which of those papers was the most difficult or challenging and why?3. Which of those papers were easy and why?4. Did you notice any differences between the kinds of writing you had to do here and the writing you did before you came here--or not?5. Do you think your writing has improved this year or not? Explain.

⁵ A study of the representativeness of the UW SOUL sample population concludes as follows: "Compared to the non-SOUL students who entered UW as undergraduates in the fall of 1999, UW SOUL students had higher high school GPA's, admission test scores, UW credits, and UW GPA as of the end of fall quarter 2000. While statistically significant, these differences failed to account for even one percent of the variance in these measures. Thus, these particular results suggest that the UW SOUL students are more academically capable, on average, than the entire entering cohort, but the differences are not very large in terms of the total variation in the population. The study sample and the population are essentially equivalent in terms of gender balance. The full study group of UW SOUL students contains significantly more underrepresented minorities than either the on-line group or the remaining population. This difference was intentional, brought about by oversampling underrepresented minority students."

without blurring the distinctions among what students say. Therefore, data are analyzed more than one time and categories and coding are cross-validated among researchers. As with any analysis of qualitative data, we can assume that agreement among even a small number of students' responses would yield greater agreement if the same questions were posed to a larger group of students on surveys. For this reason, we report categories described by small, as well as larger, groups of students.

Survey Responses

In addition to interviews, UW SOUL participants completed on-line surveys about their academic experience at the UW each quarter. Approximately 280 students responded to surveys in fall, winter, and spring quarters, 1999-2000, and 235 students responded to all three surveys. Numbers varied from item to item, but the vast majority of students who responded to each survey responded to all items. Students accessed surveys online by using a URL linked to their aliases. Table 2 shows the survey questions relevant to this report.

TABLE 2: UW SOUL Quarterly Survey Questions on Writing and on Critical Thinking and Problem Solving

How much did you learn this quarter about each of the following? (Students select from a 4-point scale where 1 = "Zero"; 2 = "A little"; 3 = "A moderate amount"; and 4 = "A lot.")
Writing papers that make and support an argument DEFINITION: A paper is defined here and below as a written response to an assignment that you worked on, at least in part, outside class, which was longer than two typed, double-spaced pages, and which was graded, either numerically, alphabetically, or with symbols, such as checks, pluses, or minuses.
Writing papers whose main purpose is to present information
Writing drafts of papers and using feedback to revise them effectively
Writing answers to essay questions on exams.
Information, theories, and perspectives from your classes.
Evaluating the validity and accuracy of information.
Thinking critically about issues.
Designing something. (Examples: a bridge, a landscape, a scientific study)
Creating something original. (Examples: a poem, a painting, a dance, a theory)
Using a variety of sources to define and solve problems. (Examples: gathering information about a patient and diagnosing medical and other needs, listening to a group of people discuss a series of problems they are having with a computer program and providing a solution, or identifying the primary needs of a client and offering solutions.)
Constructing arguments to support my own ideas. (Examples: applying a theory of deviance to a newspaper account of a murder, applying a concept, such as feminism, to a text)
Exploring questions, such as "What does this mean?" "Why is this important?" "Why did this happen?" or "What are the implications of these results, outcomes, or choices?"
Critically examining my own thinking, arguments, or opinions.
What helped your learning? (Students selected from a 4-point scale where 0= "Didn't do this"; 1 = "Wasn't Helpful"; 2 = "A little helpful"; 3 = "Somewhat Helpful"; and 4 = "Very Helpful.")
Writing papers
Taking essay exams
Being asked to review and assess my own work (Draft/feedback/review process in writing.)

RESULTS: WRITING IN THE FIRST YEAR

This section is divided into the following sub-sections:

- A. How much did students write?
- B. Where did students write?
- C. Challenging and easy papers
- D. How did writing at the UW differ from students' previous writing experience?
- E. What can students' descriptions of challenging writing tell us about the differences between previous writing experience and writing at the UW?
- F. Did students feel they have improved as writers in their first year at the UW?
- G. What did students say they learned about writing by the end of their first year?

A. How Much Did Students Write?

As first year freshmen and transfer students, UW SOUL participants reported writing an average of 8.5 papers⁶ in about three courses—about 25-30 percent of the courses they could be expected to take in a year.⁷ Only two percent wrote no papers at all, and those students were transfer students. The average length of the papers was six pages. In addition to papers, students wrote about five short pieces (1-2 pages long) for their first-year courses.

These numbers varied somewhat between freshmen and transfer students,⁸ with transfer students writing approximately one more paper than freshmen and their papers were, on average, a page longer than those freshmen wrote. In addition, transfer students wrote one more short paper than freshman wrote.

These numbers are similar to those noted in the 1997 report on the Freshman-Sophomore Writing Experience, 1994-96. Transfer students were not included in that study, and freshman reported writing about 7.4 papers per year—nearly the same number of papers that freshmen in the UW SOUL reported writing in their first year in 1999-2000. As far as we know, the only other institution that has published data on the number of papers undergraduates write is Harvard University. Harvard's undergraduates write about 10 papers a year, averaging around six pages each.⁹

B. Where Did Students Write?

In their first year at the UW, the 134 UW SOUL participants wrote papers in 203 different courses. When students were asked to list the courses that had required papers during their first year at the UW, their answers tended to “clump” around certain disciplines, as follows:

⁶ Papers were defined as more than two pages of graded writing, at least some of which was written outside class.

⁷ According to a study on how students use their time conducted by Norman J. Rose, Dean and Professor Emeritus, for the UW Teaching Academy, “90 percent or more of [UW] freshmen and sophomores take 12 or more credits” and “80 percent of the freshmen take 15 or more credits.” Furthermore, about 85 percent of juniors take 12 or more credits. From these data, we can extrapolate that on average UW SOUL students (2/3 freshmen; 1/3 transfer) take close to three courses per quarter. (Memo to the Members of the Board of the UW Teaching Academy, May 25, 2001, from Norman J. Rose: How do UW students spend their time?)

⁸ Running Start students enter the UW as freshmen, even though they may have earned up to 90 college credits by the time they enter the UW. They become “transfer students” when they officially transfer the Running Start credits they've earned to the UW. In order to get an accurate a representation of the number of “real” transfer students in our cohort, we waited until the end of spring quarter 2000, defined “transfer student” as a student entering the UW with 45 or more credits, and calculated that about 31 percent of our sample population were transfer students.

⁹ Light, Richard J., *Making the Most of College*, (Cambridge: Harvard University Press) 2001.

- 71 students (53 percent of the total number of students interviewed) mentioned English courses. Most of those students (43 percent) were taking composition courses: 32 students listed English 131; 12 students listed English 197/198 (linked writing courses); 10 students listed English 111; and 4 students listed English 121.
- 25 students (about 19 percent) named sociology classes.
- 24 students (18 percent) mentioned chemistry courses—almost exclusively the chemistry labs, Chem 142, 152, and 162.
- 23 students, (17 percent) listed history classes.
- 17 students (about 13 percent) mentioned political science courses.

C. Challenging and Easiest Papers

In addition to the writing students did in every class, we asked students to tell us about the most challenging paper and the easiest paper they had to write, in their first year at the UW. This section of the report examines the following five aspects of papers students describe as their most challenging and their easiest, and ends with a brief discussion of “guidelines” for challenging and easy papers:

- Paper types
- Length
- Research requirements
- Drafting/revising requirements
- What was challenging about the most challenging paper and what made the easiest papers easy

Challenging Paper Types

Students mentioned 102 courses as requiring them to write their most challenging papers; a complete list of those courses can be found in the Appendix.

Figure 1 shows the types of papers students described as the most challenging papers they had written before they came to the UW and the kinds of papers they described as the most challenging papers they had written in their first year at the UW. As Figure 1 shows, papers that students considered their most challenging before they came to the UW were different from those they considered their most challenging in their first year at the UW. The high school and transfer institution papers were fairly evenly distributed between arguments about issues, events, and ideas (30 percent), literary arguments¹⁰ (25 percent), informative papers (24 percent), personal essays (19 percent), and miscellaneous or undetermined types of papers (2 percent).

In contrast, the majority of papers that students considered their most challenging at the UW were arguments about issues, events, and ideas (58 percent), followed by informative papers (19 percent), literary arguments (12 percent), miscellaneous or undetermined types of papers (7 percent), and creative writing (4 percent). Students at the UW did not report any challenging writing that could be classified as the personal essay, a type of essay where students’ personal experience is the focus of the writing.

These findings are consistent with those of earlier studies of students’ writing. The two earlier writing studies (1992 and 1997) identified such arguments as the majority of papers students write at the UW.

¹⁰ Literary arguments were separated from other types of arguments, because students in the earlier writing studies reported that most of the papers they wrote for high school were literary arguments written in English classes. Therefore, in order to understand how writing at the UW differs from students’ previous writing, we felt we needed to distinguish literary arguments from other types of arguments, including other types written for English classes.

FIGURE 1: Types of Papers Students Considered Their Most Challenging Before Coming to the UW and in Their First Year at the UW

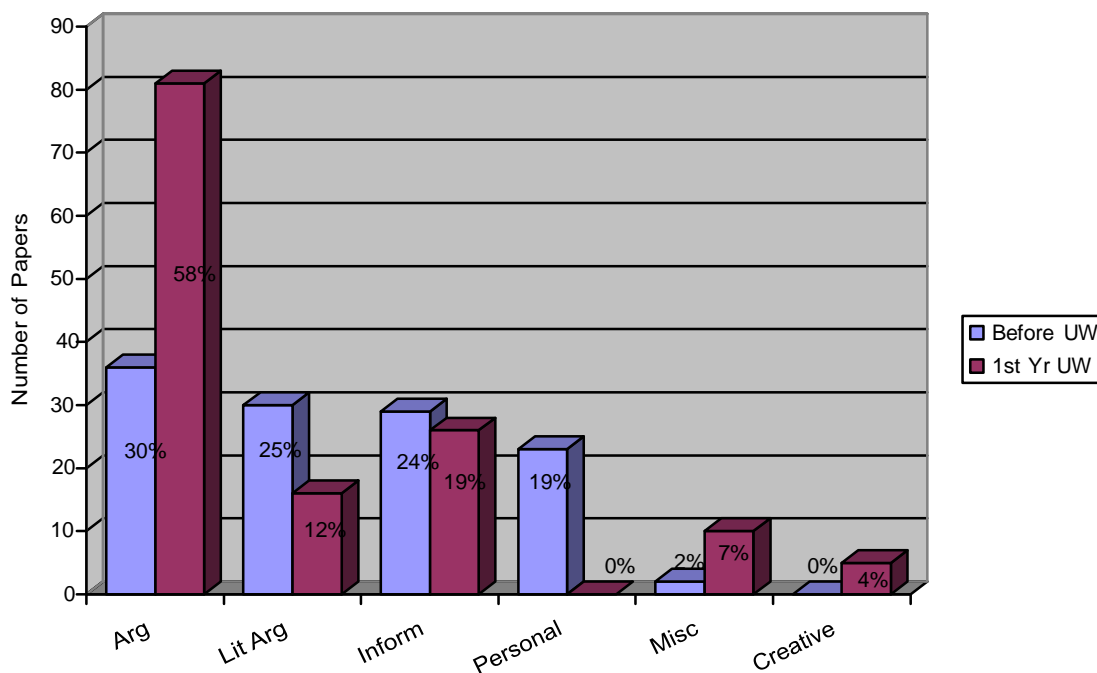


Figure 2 shows the types of papers students described in their freshman and sophomore years at the UW between 1994 and 1996. As the figure shows, most of those papers students wrote were arguments about issues, events, and ideas; the next most frequently assigned were informative. Papers classified “evocative” on this figure would have been counted as either “personal” or “creative” on Figure 1. Data from 1989-91 show a similar pattern.

These results suggest that the papers that students consider the most challenging at the UW are different from those that they found most challenging at their high schools, community colleges, and other transfer institutions. Furthermore, the papers students describe as most challenging are the types of papers most frequently assigned at the UW.

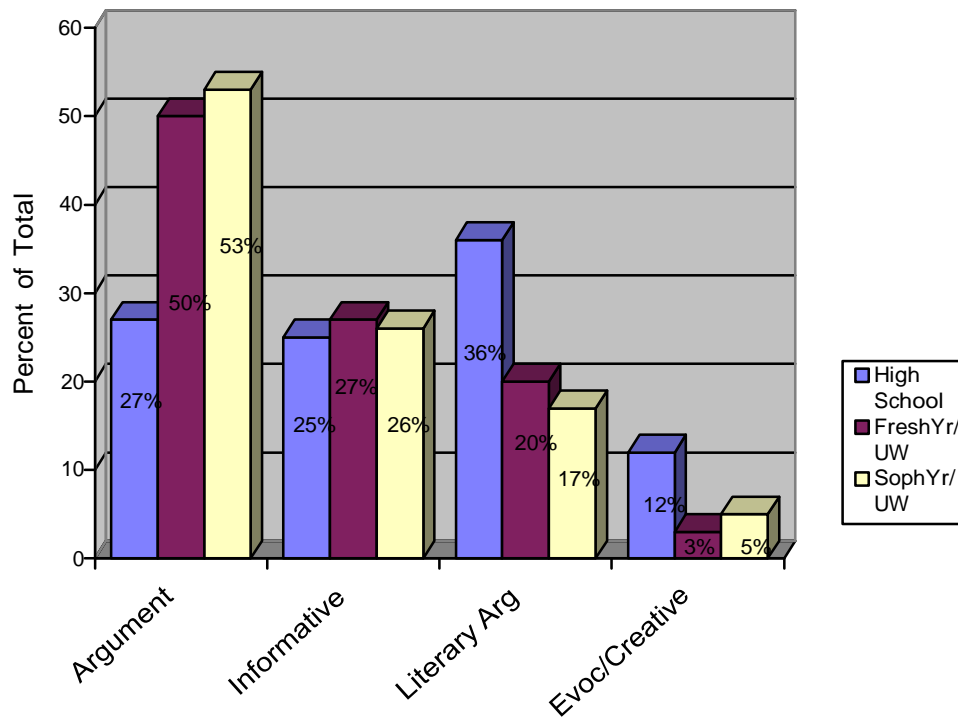
Length of Challenging Papers

The average length of students’ most challenging papers was similar to that for all the papers they reported—about 6.5 pages. The average length for freshmen was about 6 pages; transfer students’ papers averaged a little more than 7 pages long. In contrast, the average length for the papers students described as their most challenging papers in high school and at transfer institutions was about 9 pages long.

Research Requirements for Challenging Papers

Another difference between the papers students considered their most challenging at their previous institutions and those they considered especially challenging at the UW was whether or not papers required students to do research. When they entered the UW, 60 percent of the papers that students described as their most challenging papers in high school and at transfer institutions required research. At the UW, only 40 percent of students’ most challenging papers required research, and most of the research

FIGURE 2: Types of Papers UW Students Reported Writing in High School, Freshman, and Sophomore Years at UW, 1994-96*



*Source: Catharine Beyer, The Freshman/Sophomore Writing Experience, 1994-96, OEA Report 97-2, Feb. 1997.

required was minimal—locating some information on the web, for example. One reason for this difference is likely to be that students transferring from community colleges are often required to take a second quarter of composition, which focuses on research. Many transfer students identified the paper written for this course as the most challenging paper they wrote before they came to the UW. Another reason for this difference is that at the UW, freshman composition courses, as well as frequently-taken 100-level courses in writing-intensive disciplines such as history and philosophy, usually require students to use course texts as resources for their writing, rather than research.

Drafting, Getting Feedback, and Revising Challenging Papers

We did not ask entering students if they had been required at their previous institutions to submit drafts of their most challenging papers to instructors or peers for comments and to then revise those drafts, based on suggestions for revision. However, we did ask freshmen and transfer students if they had been required to take the papers they considered their most challenging through a draft/feedback/revision process. Students reported that they were required to draft and revise about 32 percent of the papers that they described as their most challenging. As Table 3 shows, however, there was a difference between the number of freshmen reporting drafting and revising and the number of transfer students. Forty percent of the papers freshmen reported required students to draft papers; get comments from peers, their instructor, or both; revise the paper; and submit the revision for a grade. In contrast, only 20 percent of the papers reported by transfer students required a drafting process. It is likely that the difference

TABLE 3: Percent of Most Challenging Papers Reported by Freshman and Transfer Students That Required a Draft/Feedback/Revision Process

Most Challenging Papers	Freshmen	Transfer Students
Requiring a Draft/Revision Process	40%	20%
Not Requiring a Draft Process	57%	64%
Neither (Students reported no challenging papers or did not comment on draft requirements.)	3%	16%

between these two groups is rooted in the fact that many freshmen take one of the composition courses (English 104, 105, 111, 121, 131, 197, and 198), and each of these classes requires students to take at least some of their papers through a drafting/feedback/revision process.

What Was Challenging about Challenging Papers?

In describing their most challenging papers, students usually included reasons why those papers were challenging. Only nine percent of students' responses did not address what made papers especially challenging, and while many of the reasons students gave were idiosyncratic, several clear themes emerged from students' responses. Please note that these themes overlap considerably. The following challenges are presented in order of frequency, along with student quotations that illustrate them:

The Topic Was Demanding. Nearly one in every five students mentioned that the assignment itself asked them to think more deeply, to spend more time, to read more carefully, and to focus more tightly than they had been used to doing. Two students' descriptions illustrate this challenge:

- “My second English paper on sexism. We were assigned a paper—we had a choice of either sexism or racism and how they related to two stories we had read. I chose sexism and argued that sexism was spread by the media. I argued a lot of stuff. But I remember that it took me a long time to write that paper. It was hard to analyze the stories and their relationships to sexism. It was hard to bring out my own opinions on sexism; I had to probe deeply. It was five pages long. We had to draft, revise, and go through peer review. No research was required.”
- “Probably the paper for 320. We took datasheets of statistics, and we had to analyze them and hypothesize about something, why you think what's going to turn out will turn out, and give evidence from the datasheet. You were supposed to create the hypothesis before you looked at the datasheet, then determine whether it was accurate based on the data.”

Understanding and Meeting the Requirements of Specific Disciplines Was Challenging. This particular category overlaps with the previous category, as well as the category focusing on the challenges of argumentation. For many students—particularly for freshmen, but also for those transfer students who have not done much writing in the disciplines at their transfer institutions—the lesson that what constitutes “good writing” varies from discipline to discipline can be a surprise. And often, as mentioned earlier, students are evaluated on how well they learn this lesson before they have fully grasped its implications. In their descriptions of their most challenging writing, about 20 students talked about the difficulty of writing for a wide range of departments, from chemistry lab reports to philosophy papers. Below are first a transfer student's and then a freshman's comments about figuring out what counts as good writing in different disciplines:

- “The 15 page paper for Engineering 100. It focused us to make sentences and words concise, and explain things clearly but without dragging on. It was kind of the opposite of what English would tell you to do, so it was like learning to write a paper again. We had been doing research the quarter on fiber optics, and we had to write some background on fiber optics, what we had done, what the project goals were.”
- “The paper, itself, was difficult, too, because in philosophy you write in a completely different way than we were taught in English. It is what's your claim, what's your evidence, what's your opposition. It is a different kind of writing--proving your point..”

One interesting aspect of this challenge is that students, particularly freshmen, often assume writing conventions and practices of a discipline are simply the arbitrary preferences of an individual instructor. They seemed to believe that every teacher has her own unique standards for effective writing and the “trick” to doing well on written assignments is to crack that individual teacher’s “code.” This belief, of course, if coupled with no explicit instruction in what disciplines value, can act as a barrier to students’ learning and their ability to move from writing success in one class to success in another class in the same discipline. Two students’ descriptions exemplify this confusion:

- “The first paper in Philosophy. I had no idea what they were looking for. Every teacher's requirement for writing style differs. That first paper is where you just write what you normally write, and they say ‘No this isn't what I want at all.’ We had to write a summary/analysis of John Stuart Mill. I remember my title. I feel titles are really important. Mine was ‘Between a Man and His Bacon.’ It was the difference between having desires and then being human and how we must step beyond our desires if we are human. It was only two or three pages long.”
- “Chemistry labs were challenging. It is an entirely different format, and I hadn't done a lot of those. You just had to get used to pretty much what your TA wanted. She wanted it short and simple and in scientific language. It was adapting to what she wanted, so we learned from our mistakes. I guess that it was just adapting to her style-kind of.”

Writing and Supporting Arguments Was Difficult. Figures 1 and 2 illustrated how important argumentative writing is in college, as well as showing that there is a gap between the kinds of arguments written in high school and those written in college. Unsurprisingly then, one of the most frequently-mentioned challenges students described was writing arguments and supporting them. Several students specifically mentioned the difficulty of writing argumentative papers, rather than lapsing into summary. About 20 students, or 15 percent, mentioned the challenge of writing arguments. Two quotations, the first from a freshman and the second from a transfer student, illustrate this category of responses:

- One of the philosophy papers. The assignment was to either argue against an argument or for an argument, and then bring up something that challenged your own argument. Then you had to write why that wouldn't work as a counter argument. I think mine had something to do with Descartes and his dream theory. I think I criticized it. This was 4 pages long. The paper was hard because I had to think of my own arguments and then find a valid argument that would disagree with what I was writing and then find some way to disprove it. And it all had to be valid; it couldn't be just an easy way out. It was hard to further back up my argument by counter-acting the argument I had used. I would try to do that, but then I would find that the argument I had used to attack my argument was really good, so I kept going back and forth.
- The one I just turned in for History 201. We had to read a novel called Looking Backward by Edward Bellamy and discuss his ideas about American society and culture. I argued that the

society he wrote about treated people more equally in the workplace but not equally in expressing their own individuality. We were not required to do a draft/feedback/revision process, but I did it anyway through the TA, and I asked a person teaching the English 198 link with the class if she would mind reading that paper. It was hard to sustain my argument instead of summarizing. I started summarizing most of the book instead of arguing my main point.

Understanding the Assignment and/or the Professor's Expectations Made Papers Challenging. About 17 students found it difficult to understand what the writing assignment was asking them to do. They said that assignments were often ambiguous or so broad that they were unsure how to proceed. This category may overlap with "Understanding and Meeting the Requirements of Specific Disciplines," because students who are uncertain about disciplinary demands are likely to find assignments unclear. Two students' comments illustrate this category of responses:

- "I'd have to say my first English paper. I didn't really understand the format and the idea was very abstract. I wasn't really motivated so it was hard to do it. We wrote an essay on an article by Tompkins. I don't even want to think about it, it was so bad. It described her research process on Puritans, Indians, and it was a terrible essay in my opinion. We had to pick a moment in history and we had to integrate three sources and her essay and tie it all together and come out with something. It was a very ambiguous assignment. There weren't a lot of directions. It was just let the research take you. We didn't do research and come up with an idea. We had to come up with an idea and then find the sources."
- "It's gotta be our final neurobiology paper. We had done a three week lab, and it had a big complex dissection in it. Then we had to follow some direction and compose a lab writeup ourselves. They didn't give us directions; they didn't tell us what to do. We had to say what we were trying to do, why we performed certain experiments, and why it was important to neurobiology. I did the lab with one other person but wrote this up alone. This paper was hard because there was no direction, aside from the concepts that were confusing! Our hypothesis had to do with superficial flexor muscles in the crawfish and how the third nerve sends motor or sensory signals to the superficial flexor muscles and how those can be influenced by where the crawfish is stimulated and why you might get a motor response instead of a sensory response. My paper was 3 pages long, not including figures."

The Texts that Were the Paper's Focus Were Difficult to Read and Understand. In talking about what made writing challenging, about 15 students mentioned that the writing was challenging because the reading was difficult—either in itself or in its relationship to the assigned topic, as the two quotations which follow demonstrate. This problem has been raised by UW SOUL students in focus groups, interviews, and email responses. Again and again, students tell us that the reading they are required to do in classes at the UW is significantly harder than they have been used to at their previous institutions and that they are also required to do more reading each week than they had to do previously. Furthermore, many students have said that they were not sure how to read effectively for their courses here and that they have appreciated it when professors give them some instruction in how to approach the texts they assign.

- "And half the time in English I had to write papers on essays I didn't even understand, so that made it hard too. The last paper we had to do was on an essay on mystification. We had to figure out what mystification was, find a painting, and then apply mystification to that painting. It felt like we were guessing on what mystification was, and she would just say, 'No, that's not it.' You never really had a clear understanding of what that concept was so you could apply it to that painting."

- “I wrote a History 201 paper on McCarthyism, and I thought that was the hardest I had written. For each of the papers we wrote in history, you had a book that corresponded to it. The book I read, there wasn't much information in, so it was difficult to pull examples out. The assignment was whether we thought McCarthyism helped promote the red scare, and if so to support it with examples from the textbook we were reading. I said that I thought it did. We were just supposed to use that one book. 3 pages.”

The Research Required Made the Paper Challenging. About 40 percent of the papers students identified as their most challenging required research. Twelve students mentioned that the research itself was the most challenging aspect of their hardest papers. Two students' comments on research challenges follow:

- “I did a paper on the cultural diffusion of Mickey Mouse in Geography 100. They gave us a list of topics to pick from, and I picked that one. It was just really difficult because the research I was looking for I couldn't find. I eventually ended up landing in LexisNexis and grabbing a bunch of magazine articles that basically pertained.”
- “The final paper for the History/English writing link was a history paper where you had to go to the library and find a primary and secondary document, and that was definitely the hardest. I had tried to avoid the library system like the plague, and I was really forced to go in there and use microfiche. The research was hard, and trying to think like a historian was hard, but I really liked having the comp class because we really worked up to it.”

The Paper Was Challenging Because It Was My First UW Paper. Several students mentioned that the most challenging paper was the first paper, simply because it was the first. One student's quotation illustrates this point:

- “English 104—the beginning papers he assigned to us were the most difficult. I got pretty low scores on those, and that was pretty shocking because in high school I had done well. I felt he was grading too hard at first, and it was hard for me to adjust to college standards. The thesis was hard and support, I guess. After having a hard time at first, I kind of hit my stride. We went through draft/feedback/ revision process with those papers, and peer revision too. It was really helpful to learn my mistakes and how to prevent them on other papers.”

Other Responses. As stated earlier, some categories included responses from only a few students. Among them:

- Three freshmen who said that their papers were challenging because they had not read the book the paper was about. One example: “The 10-page paper for Soc. I wrote on a book entitled Fatherless America, but I didn't read the book, and that's what made it hard. I read the end of it at the last minute. I was saying that I didn't agree with the author. I pulled a B on the paper.”
- Three students, two of them transfer students, who said that what made papers challenging was working in groups. One student put it this way: “It was hard because working with a group, it is hard to decide on the order of things or what to cut out. It is touchy to do it. You don't want to hurt other people's feelings or anything. The group aspect was more difficult than the actual writing.”

- A few students said none of their papers was challenging. As one transfer student said: “No—they were all pretty standard format. Even if I am not very good at it, they were all pretty much the same. It is almost like filling out a form. It is not creative.”

Easiest Paper Types

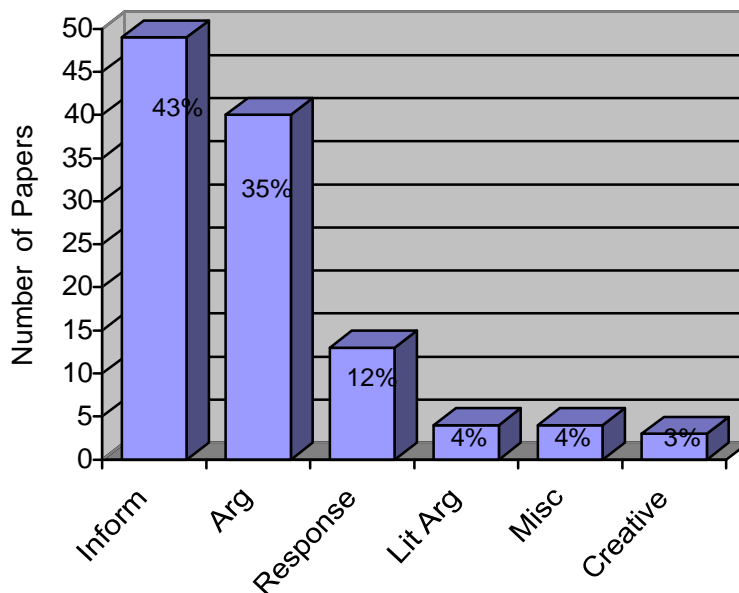
In addition to asking students about their most challenging writing, we asked students if they wrote any papers that they considered “easy.” A list of the courses students mentioned as assigning easy papers can be found as Appendix B.

About 87 percent of the UW SOUL participants described “easy” papers. Eight percent of the students said that none of the papers they wrote was easy. About 2 percent felt that the papers they had written were pretty much the same level of difficulty, and, therefore, they could not single out a paper that was particularly easy. Two students said that all their papers were easy, and therefore, they could not describe one that was “the easiest” either. About 2 percent of the students in the study, as mentioned previously, did no writing at all.

Figure 3 shows the types of papers students described as their easiest. As the figure shows, most of the papers students described as their easiest were informative papers (43 percent), followed by arguments about issues, events, or ideas (35 percent). About 12 percent of the students mentioned “response” papers, a type that does not appear in students’ discussion of challenging writing. These “response” papers usually asked students to react to something they had read or heard in class, carried little or no credit, and, as students described them, were mostly just a “check” to be sure students had done the reading or had paid attention to discussion in class. A few students mentioned literary arguments and creative writing assignments as their easiest, and a few students described papers whose “type” was unclear, based on their descriptions. These are identified as “miscellaneous” on Figure 3.

Figure 3 suggests that students find informative writing “easier” than writing arguments about issues, events, or ideas, which their descriptions—discussed in the section of the report entitled “What Was Easy

FIGURE 3: Types of Papers Students Considered Their Easiest in Their First Year at UW



about Easy Papers”—confirm. While a little more than a third of students’ easiest papers were arguments, they were the kind of argument that students label “opinion papers,” as their comments on what made papers their easiest confirm, as well.

Length of Easiest Papers

Not surprisingly, easy papers were shorter than challenging papers by quite a bit. Easy papers for freshmen averaged 4.1 pages long, compared with 6 pages for their most challenging papers. Easy papers for transfer students averaged 3.8 pages long, compared with 7 pages for the papers they considered their most challenging. It is reasonable to conclude from this that generally students find shorter papers easier to write than longer papers.

Research Requirements for Easiest Papers

More than 77 percent of the papers students described as their easiest required no research. About 60 percent of the papers students thought were their most challenging required no research. Therefore, if research is a factor in students’ sense of how difficult their papers are, it is probably a small factor. However, research may become a more important factor in advanced courses.

Drafting, Getting Feedback, and Revising Easiest Papers

About 77 percent of the papers students described as their easiest did not require students to go through a draft/feedback/revision process. About 16 percent were required to go through a drafting process, and we were unable to determine whether the remaining 7 percent of the students were required to go through such a process. Students who were required to draft, get feedback, and revise their easiest papers were mostly freshmen (14 of the 16 percent who reported drafting), rather than transfer students (about 2 percent). The difference between transfer students and freshmen in this regard is likely attributable to the fact that many freshmen are taking English composition courses, which usually require students to take their papers through a draft/feedback/revision process.

What Was Easy about Easiest Papers

When they described their easiest papers, students were asked what made them easy to write. As with the challenging papers, students’ responses to this question varied. The following reasons, listed in order of frequency, were given for why papers were easy. As before, we have included some of the student quotations that illustrate them.

Students Were Only Required to Summarize Information, Not Required to Think. Forty-three percent of the papers students described as easy were informative papers. It was clear from their discussions of why papers were easy that in many cases, students do not find writing to present information very challenging; about 30 students explicitly gave this as a reason. Three students’ quotations illustrate this category:

- “Probably the paper I had for CEP. We could choose our own topics, and I did mine on Municipal Solid Waste. I just picked up some books on solid waste, and it was just reading the information and spitting it back out.”
- “Probably the lab reports in chemistry. They are basically just procedure and what you want to find and then the conclusion. There isn’t a lot of information that you have to add; you just translate the information you collect from the lab into sentences. They are usually 4-7 pages with charts and stuff.”

- “The Environmental Science 250 field trip report. We went on a field trip and then described what we did on the field trip. I think we did that so he would make sure we were paying attention on the field trip and would learn from it. It was easy because it was description and memory. There was no real thought process. 3 pages long.”

Students Had Previous Knowledge of/Interest in the Course Subject or Paper Topic. About 20 students pointed out that their previous experience or understanding of the assigned papers or types of papers made them easy to write. Two quotations illustrate this response:

- “The easiest paper I wrote—we were doing this thing on formal lab write-up. They had this experiment write-up with all the data, and a formal structure we were supposed to follow, and we just had to write it up. That was very easy for me because it was logical and structured, and I had done stuff like it before.”
- “Probably my Communication research paper was easy to do. We had to research how the media affects society. There were four different theories. I am doing social and cultural changes. It is easy because we can chose which medium we want to use. I picked something I am interested in, and that makes it a lot easier, and it is really easy to prove too. I am saying that Ellen's coming out episode sparked a social change toward sexuality, not only in sit com and in mainstream.”

Students Could Just Write Their Own Opinions; They Were Not Required to Use Support or Structure. Many of the students who identified merely having to write their own opinions were writing arguments; however, they were not required to support them with information from outside their own thinking. Fourteen students said that their papers were easy for this reason. Two example responses:

- “I'd have to say my drama papers. All the papers we did I swear the teachers didn't read half of them. It was pretty much just our opinion on these plays we saw. Even our end of the year project was pretty easy.”
- “The easiest paper was probably for my Scandinavian class. We're learning about sexuality in the 1800s and 1900s. We just have to write one page response papers on any topic that comes up in the reading or class discussion that we find shocking or interesting or whatever. I find those easy because it is just our own opinion. It is a part of our grade, but I haven't gotten any back.”

Grading Was Easy, Non-Existent, or Didn't Constitute a Large Portion of Students' Final Grades. Several students mentioned that when grades did not matter much, the papers were easy, as these two students' responses illustrate.

- “Probably the first one. It was a short one that we didn't put much effort into. It was just graded on whether we did it or not. The topic was tradition versus modernity; we were supposed to argue for one or the other. It was only two pages, and we used the text from class.”
- “My English papers were easy because I remember I had to do research, but the teacher graded so easily, so I didn't really have to work too hard on it. We had a couple long essays in that class, and this one was over seven pages. It was an essay on obsessive-compulsive disorder and it was just informational.”

The Paper Took a Short Time to Write. Several students mentioned that the paper they considered their easiest took only a short time to write. The amount of time students specifically mentioned ranged from 30 minutes to two hours. Two students responses in this category follow:

- “The one I just wrote for my murder class was easy—Soc 275. We just had to answer the questions posed. We could pick a book that gave a case. We were supposed to explain who, what, where, when, and why the murders took place. A case description. An informative summary of the case. You take your short answers and make them sound bigger. I wrote it last night. Paper was 5 pages long. I wrote it in about half an hour.”
- “The geography paper. It was four pages long. We supposedly had to research, but I didn't do research really. I cited stuff, but all the material was already there. I used my geography textbook. I didn't have to look for anything. The paper took me like 40 minutes to write. I had to write on Prop. 441, it was the bilingual education proposition in California. I already knew stuff about it. I used books and the internet - we only had to use two sources. It was like busy work. I felt like it was Junior High.”

The Paper Topic Was Easy—Not Very Complex. Eight students said that the paper was easy because the topic was easy—a kind of circular argument. One example:

- “Yeah, one in English. Those were all fairly easy. It was commenting on an article she had us read. I believe the article was about children's books and how they aren't color blind and have all these hidden messages in them. It was basically spitting back and putting a little bit of your own opinion into it. The question was just silly. It was just a surface question.”

Requirements Were Made Clear and the Class Offered Help in Writing the Paper. About seven students pointed to good instruction as a reason a paper was easy to write. For example:

- “The easier ones were for English 200. The class was on reading literature, so we were reading different books and then analyzing them, analyzing characters. It was kind of a sociological perspective. They were fairly easy because we did a lot of the analysis in class. That was why it was so easy. There was a lot of group work in that class, and that helped me write the papers. The teacher was very helpful too.”

Other Responses. Students had a wide range of additional responses, including six students who said that the papers they wrote were easy because they did not require research, another six who said papers were easy because it was easy to find the information or evidence necessary to write the paper, and two students who said that they felt they had a lot to say about their subjects. One student said: “These papers were easy because everything I had to write the paper was already inside of me.”

Guidelines for Challenging and Easy Papers

If our goal is to create writing assignments that students will find challenging, students' responses to what makes papers challenging and what makes them easy give us some interesting guidelines. It seems clear that students want challenging assignments both from their responses to questions on writing in the interviews, as well as from their responses to email questions about academic expectations.¹¹ However, students do not want assignments that challenge them by virtue of their ambiguity. And they are pleased when they consider an assignment easy because they already have an interest—or discover one—in the paper topic or the subject of the course.

Table 4 shows students' top three reasons for why assignments were challenging and why they were easy. The list of “easy” reasons seems to illuminate the list of “challenging” reasons, to some extent. For

¹¹ See Beyer and Gillmore, Student Perceptions of Academic Expectations at the UW, December 2001, <http://www.washington.edu/oea/0116.pdf>

TABLE 4: Top Three Reasons Given for Challenging and Easy Papers, 1999-2000

Why Challenging	Why Easy
1. The topic	1. Students were only required to summarize information, not required to think.
2. Understanding and meeting the requirements of specific disciplines	2. Students had previous knowledge about or interest in the course subject or paper topic.
3. Writing and supporting an argument	3. Students could just write their own opinions; they were not required to use support or structure.

example, topics might be said to be challenging when they require students to think, rather than to summarize others' thinking. In addition, students, especially freshmen, have little previous knowledge about the ways writing varies across the disciplines when they arrive at the UW; therefore, papers that required them to use the writing practices, purposes, and conventions in the disciplines were perceived as challenging. Finally, when students write arguments that require structure, evidence, and the use of resources outside themselves, those arguments are perceived as challenging, but arguments that merely ask for students' unsupported opinions were considered easy.

From students responses to questions about their most challenging and least challenging papers, we can conclude the following about challenging papers.

- Challenging papers are five pages long or longer. This aspect of students' perception of challenging writing could, of course, change in the next few years.
- They require students to formulate and support arguments about complex issues, as opposed to asking students to report or repeat information.
- They are rooted in the demands, conventions, and practices of the disciplines in which they are assigned.
- They require students to use resources outside themselves—complex texts and/or research—to complete the assignment.
- They may require students to move through a draft/feedback/revision process.
- They are graded carefully and represent a significant portion of students' final grades.
- They are complex enough that students must write them over time, rather than in a two-hour period the night before they are due.

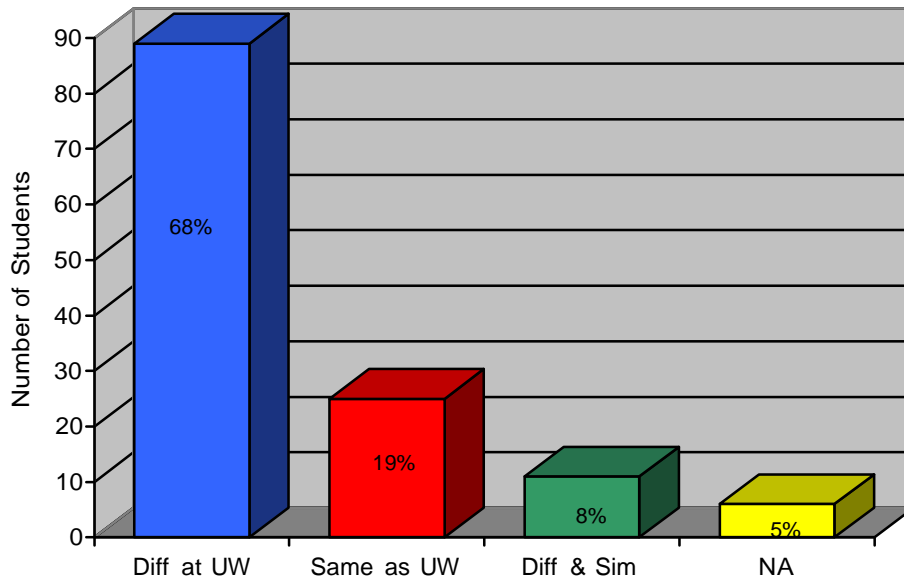
Certainly, the best challenging papers give students clear and unambiguous direction about what they must do in the paper, and students find those papers easier to write if they are interested in the topics than if they are not.

D. How Did Writing Differ at the UW from Students' Previous Writing Experience?

Students were asked if they noticed any differences between the kinds of writing they had to do at the UW and the writing they did before they entered the university. Figure 4 gives a breakdown of students' general responses to that question. Overall, 68 percent of the students said that writing at the UW was different from the writing they had done previously. About one in five students said the writing was the same as the writing they were required to do in their high schools and transfer institutions. Eight percent said that writing at the UW was both different from and similar to the writing they had done previously. About five percent said that they had not written previously or in their first year at the UW, and so they could not answer the question.

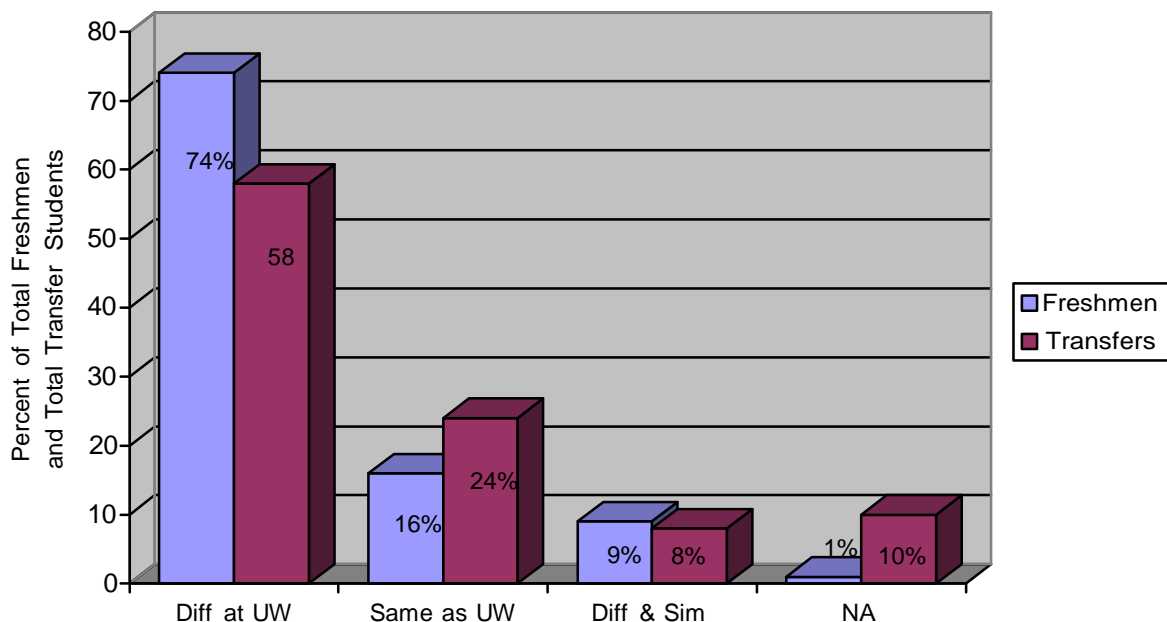
While there was much agreement among students about whether the writing they were required to do at the UW differed from that required at their previous institutions, there were differences between transfer students' responses and those of freshmen. Figure 5 compares the two groups. As the figure shows, 74 percent of the freshmen respondents said that writing at the UW differed from that at their previous schools, compared with 58 percent of the students who transferred to the UW from other institutions.¹² About one in four of the transfer students felt that their writing experience at their previous institutions was the same as that at the UW, while only 16 percent of the freshmen did.

FIGURE 4: Students' Responses to Whether Writing at UW Differed from That at Their Previous High Schools and Transfer Institutions



¹² Most of the transfer students came from community colleges; however, several transferred from other four-year schools, including Eastern Washington University, University of California-Berkeley, Seattle University, and USC.

FIGURE 5: Freshman and Transfer Students' Responses to Whether Writing at UW Differed from That at Their Previous High Schools and Transfer Institutions



About the same percent of both groups mentioned both differences and similarities; however, 10 percent of the transfer students could not respond to the question because they had done no writing either at their previous institutions or at the UW, compared with only one percent of the freshmen. Most of the transfer students who could not respond said that they had done no writing at the UW in their first year here.

This section discusses the ways students described differences and the ways they described similarities between UW writing and writing at previous schools, as well as the “non-responsive” answers students gave to this question.

How Writing Differed at the UW

What was it about writing at the UW that students felt differed from writing they had done previously? While students’ descriptions of differences varied quite a bit, we could generate 10 categories among them. These categories are listed below in order of their frequency, and, unless noted, included responses from both freshmen and transfer students:

- Differences in structure demands*
- Higher expectations/standards at the UW
- More argumentative assignments at the UW
- The disciplinary nature of writing at the UW
- Higher expectations/standards at students’ previous institutions
- Emphasis on the use of support/evidence in UW writing*
- More specific and complex topics at the UW
- Better guidance and feedback on writing at the UW, more focus on the writing process*

* Reported only by freshmen

- More writing required at the UW⁺
- A focus on content at the UW

Below we have provided brief discussions of these categories of difference, and we have included quotations from students that illustrate them. Please note that some of these areas overlap.

Structure Demands Are Different at UW. Only freshmen reported that one of the most significant differences between the writing they did in high school and the writing that they were required to do at the UW was a change in the kind of structure required. Yet so many freshman mentioned changes in structure that it was one of the two most-frequently mentioned differences. In many cases, when referring to changes in structure, students mentioned that at their previous institutions they were required to write the “five-paragraph essay,” but at the UW this format was neither used nor valued. At the UW, students were asked to develop and use a variety of organizational structures to complete the writing tasks they were assigned. For some students this felt like freedom; for others it felt as though they were left to flounder. Three students say this about changes in structure:

- “It is not so mechanical here. It doesn't feel so mechanical. It might be more so, but you are not socialized to the five-paragraph theme.”
- “High school was a lot easier. My high school teachers always wanted five-paragraph essays, or some really rigid structure. Here you can do so many things. I think it is different what each teacher wants, but still there is a bigger range even in one class compared to what we could do in high school.”
- “First off, there is never any structure given here. At my high school, everything was told to the period. At the UW, it is open ended and you're expected to know how to do it already.”

Higher Expectations/Standards at the UW. More transfer students than freshmen mentioned higher expectations; in fact, one in five of the transfer students reported that the difference between writing at the UW and writing they had done at their previous institutions was that standards were higher at the UW. This does not necessarily mean that standards at transfer institutions were actually lower than they are at the UW. It could just as well mean that writing expectations increase for all students they move into their majors. Three quotations illustrate this shift:

- “Yeah, I like the writing I do here much better. I think I did a good job on my political science papers. In high school, I didn't really slack off on my papers, but I didn't reach my full potential. Here I worked hard because it is so competitive. I think the teachers here expect more from you.”
- “At [my community college], there was a fair amount of writing. I was surprised when I went back to school how much writing there was. But here at the U, I am writing in every class. There is a lot more emphasis on it, and the expectation of writing ability is higher here.”
- “When I was at [my community college], I was just taking my entry level English courses. They were primarily just teaching me how to write, the rules of the game and things like that. But now my writing has a different focus. They are asking me to look at things analytically, asking me to do projects that are creative, asking me to do projects in different languages. So I am much more challenged and stimulated as a writer now than I was when I was taking those intro courses.”

⁺ Reported only by transfer students

More Argumentative Assignments at the UW. Many freshmen and a few transfer students pointed out differences in the kinds of writing they had to do at their previous institutions and the kinds of writing required most often by their UW courses. As Figures 1 and 2 in this report would lead us to expect, students said that the UW required them to write more arguments than were required by their previous institutions. Three quotations illustrate this point:

- “In high school, you would write different kinds of paper, but here it was all argumentative, academic writing. You didn't get to experiment with any different writing styles.”
- “It seems like here I have done a lot more interpretive or argumentative writing, where at [my community college], it was more factual writing.”
- “In high school they give you a topic that you had to research and you would write a paper based on the research. Here they integrate the readings into their lectures. You have to go out and read the books, formulate a theory and support it. You aren't just writing about what you learned from your research. The writing before was more informative, and here it is more theory based. There is a lot more thought processes that have to go on. You have to eliminate things from your reading to make your argument.”

The Disciplinary Nature of Writing at the UW. This category and those on structure and argument overlapped somewhat. Both freshmen and transfer students noted changes in writing demands as they moved from discipline to discipline. Students mentioned finding it difficult to understand how to write well in many classes, but philosophy, history, and science labs were mentioned frequently. Students did not identify how writing purposes and conventions differed from one kind of class to another; indeed, often they still seemed perplexed by those differences—aware that they were there but unable to articulate what they were. Four students have this to say about navigating changes in writing practices and purposes across disciplines:

- “In high school, I either wrote papers for history or English. It was the same writing style. The proper way to write a paper, you don't use first person. All of a sudden in philosophy, here are a whole new set of rules that pertain only to philosophy papers. Writing in the history class here was harder than in high school, but I didn't feel stressed out about it like I did in political science or philosophy.”
- “In Environment 201, my style didn't work. There was some difference there that I couldn't figure out. I think maybe I needed to be more technical. I tend to write with a flair, and maybe they didn't like that. I tried to tone it down in my second draft, but obviously it wasn't dry enough. But in English 131, I found I could write fine. I love editorial writing, and did that in high school, and that perfectly fit the English 131 writing style, how they want you to present your opinions.”
- “In the history class they were asking me to think like a historian, and I'd never tried to do that before, so that was definitely hard.”
- “I think there was a lot of different ways of writing here. I wasn't used to the way they are organized academically. I hadn't taken any writing courses for the humanities or the social sciences and that kind of thing. I took courses on writing in literature.”

Higher Expectations/Standards at Previous Institution. Some high school and transfer students reported that the difference between the writing they had done in their first year at the UW and the writing

they had done at their previous institutions was that their writing experience prior to the UW had been better or more demanding. Two students' quotations in this regard follow:

- “So far, from what I remember, what I did in high school was more difficult. Here I haven't had to do any papers that have a lot of research, but in high school I had to do really long papers that required a lot of research and a lot of drafting.”
- “The writing assignments at [my community college] were more demanding. They were longer. They required more research out of class. They seemed to be harder in order to prepare you for the university, and then when I got down here, it seemed like overkill. I have found the writing here pretty easy, overall.”

Emphasis on the Use of Evidence and Support in UW Writing. This category was generated only by freshmen responses, suggesting that the focus on support may come primarily from freshmen composition courses typically taken in a student's freshman year and/or that transfer students may have already learned how to use evidence at their previous institutions. We've included two quotations to illustrate this category.

- “There is a lot more basis to my arguments and discussions here. I wouldn't just give general statements anymore. In high school, you can just state your point without really backing it up. You could just use a catchy cliché. In college you can have a really catchy point, but unless you back it up you are going to get in trouble.”
- “Now the expectations are unspoken, where before even the obvious expectations were outlined 20 times. There is a lot more freedom to really develop your thoughts here, but you have to be really good about supporting them. In high school, support was important, but since you had so little room for creative interpretation, it was hard NOT to have those supports. It was so rigid, it was pretty obvious even what supports you had to use. It was clear cut. But now it is all up to you. You choose your own subject line and you find the support. Also, they are more rigorous here about your analysis. You can't just make some statement and keep going. You really have to have reasons for everything that you do. Everything that you do has to be really purposeful.”

More Specific and Complex Topics at UW. Both freshmen and transfer students noted differences in topics. The section that follows discusses some differences in writing assignments given in high school and community colleges and writing assigned at the UW. One student's comments illustrate this category below:

- “They are more demanding here and expect longer papers, and are more specific about choosing a topic that isn't general.”

Better Guidance and Feedback on Writing at the UW, More Focus on the Writing Process. Several freshmen (but no transfer students) mentioned getting better or more feedback on how to write from their UW writing experience. Again, it is likely that students who mentioned this difference between writing at the UW and at their high schools were referring primarily to their freshman composition courses. One student's describes that help in this way:

- “There was a lot more peer editing required here and a meeting with teachers. In a way it seemed like there is more help here; more step by step guiding you through the process. It seemed like the teacher was more involved in the writing process here.”

More Writing Required at the UW. Several transfer students (but no freshmen) reported that one difference they experienced was having to write more at the UW than they had to write at their transfer institutions. One student's quotation follows:

- “I transferred in credits from two different schools to the UW. I have had to do more writing and a little bit more research.”

A Focus on Content at the UW, Rather than Structure or Mechanics. A few freshman noted that papers were evaluated more on the basis of content at the UW than on other aspects of writing.

- “They pay a lot more attention to content here at the UW. In high school, half the time if you just turned a paper in and your grammar was good, you'd get an A plus. But here, your paper can sound really good, but you might get it back and see that the content of your paper isn't what it could be.”

While students' opinions of the differences between their previous writing experience and writing in their first year at the UW varied, together they create a picture that confirms other UW SOUL findings. First and most significant, students' experience of writing at the UW are different from the writing experiences they have already had. Second, while differences are especially significant for students entering the UW as freshmen, the majority of transfer students also experience changes when they come to the UW. This means that helping students become effective writers cannot be limited to the freshman year. Third, changes students experience center around the following:

- The type of writing students have to do at the UW—arguments in the disciplines, as well as in English courses, as Figures 1 and 2 illustrated earlier in this report.
- What is valued in the papers students have to write including a narrower topic than students are used to; an organizational structure that works for the paper topic and the discipline, rather than the single organizational pattern learned in high school; thorough support/evidence for assertions; and a focus on content over mechanics—all aspects of writing that are mediated by the disciplines.
- Higher standards or expectations for writing, echoing a previous UW SOUL report on academic expectations (<http://www.washington.edu/oea/0116.pdf>).

Writing Was the Same at the UW as at My Previous Institution/ Writing Was Both Different and Similar

We have put these two categories together because differences noted in the “different and similar” category were mentioned in the previous section. Here, we focus on similarities.

Many transfer students—about one in four—felt that their writing experience at the UW was comparable to the writing experience they had at their transfer institutions. In contrast, few freshmen experienced such an overlap. There were few patterns in the similarities students mentioned. Transfer students reported that what mattered at the UW also mattered at their transfer institutions and a few students noted that grading was similar at the UW and at the institutions they transferred from. In addition, a few of the freshmen drew connections between high school English classes and English 131 at the UW. Other than these, no clear patterns were noted. The quotations of five students on similarities between their previous writing and the writing they did in their first year at the UW follow:

- “We had to do the same sort of writing in my English class in high school that I have had to do here. We have been doing that sort of writing since 8th grade-writing which emphasizes a thesis, transitions, and that sort of thing.”
- “I transferred from [a community college]. Based on the one psychology class that I wrote in at UW, it was pretty much the same. At the community college, the assignments were buffered by a lot of ‘You can do it!’ but here it was just assigned. Other than the way the paper was assigned, the requirements were almost identical.”
- “Not really. I think I am at the same level because I haven’t had a class where I learned a lot about my writing style. The structure is really the same because I was in AP English in high school, so it is pretty much like it is now.”
- “I took a research class as a senior and that was very similar to what I did in my English 131 class. So the writing was actually very similar to the writing I have had to do here.”
- “I transferred from [a community college]. I haven’t really seen a lot of difference between the writing here and there. They are similar type papers, like two page summaries.”

Because of the wide range of students’ responses, it is difficult to conclude a great deal from students comments about the ways in which their previous courses were similar to those at the UW, except to say that for some students the closest links between UW writing and writing they have done previously may be between advanced English courses in high school, composition courses at transfer institutions, and the UW’s composition courses, English 111, 121, and 131.

Other Responses (NA)

As stated earlier, students whose responses could not be categorized said that they had little or no experience writing in high school or in college. What is interesting about this category is that most of these students were transfer students who said that they had not written at the UW. This suggests that we may see a decline in the amount of writing students do after the freshman year.

E. What Can Students' Descriptions of Challenging Writing Tell Us about the Differences Between Previous Writing Experience and Writing at the UW?

Analysis of the students' descriptions of their most challenging writing at their previous institutions and at the UW confirms students' own perceptions of how writing at the UW differs from that at their previous institutions. Tables 5 and 6 provide two different views of students' writing assignments. Table 5 compares topics from similar disciplines that students described as their most challenging high school/transfer and UW papers. Table 6 shows four students' descriptions of their most challenging UW papers and those they considered the most challenging at their previous institutions.

The most apparent difference between the two sets of papers shown on Table 5 is how deeply imbedded the UW papers are in the course contexts from which they've come, in contrast to more loose or general contextual connections seen in the earlier "challenging" papers. In addition, in this table the papers that transfer students wrote appear more similar to those written at the UW than papers written by high school students. For example, many transfer students have taken two quarters of composition, and the second quarter's focus—which is often on argumentative, research-based writing about issues, events, or ideas—is similar to the writing students encounter here. Students in community colleges also often write "seminar papers" in coordinated studies courses and courses across the curriculum that are similar to the text-based arguments students at the UW write in the disciplines.

Table 6 shows three freshman and one transfer students' 1999 and 2000 responses to the question regarding the most challenging paper they had written, which illustrate a few of the differences noted previously between writing students do at their previous institutions and writing they do at the UW. The table shows, for example, the difference between the literary arguments or informative papers students wrote previously, and the arguments about issues, events, and ideas students are asked to write at the UW. Furthermore, the table provides an example of a subtle difference between the arguments students were asked to write before they came to the UW and those they wrote in their first year at the UW. The arguments written for previous institutions tended not to be deeply connected to reading, and they often asked students questions such as "What do you think about X?" In these papers, there is the sense that the intellectual conversation is between the student and the topic or the instructor. In contrast, descriptions of the UW papers discuss challenges that are more deeply imbedded in the disciplines that assigned them, as students noted when they talked about differences. The UW papers also tended to require critical analysis and an understanding of difficult reading material. Arguments were focused on "What do you think about these other ideas about X?" so there is the sense that the student is being asked to join a conversation around a topic, an idea, or an event and to take other participants into account.

These two quotations from students trying to articulate the differences between writing at their previous institutions and writing at the UW capture some of the differences seen in these assignments:

- In high school, it was mostly analyzing literature and other people's ideas.
- I took English comp courses at [my community college] as a running start student. I guess it was the same idea, but there it was more like the purpose was to write a paper and now the purpose is more like to study something in depth. When you actually write a paper, that is when I am learning something about a subject. Now I can go discuss this with someone. I have my own opinion on it, and I know the research. There has been less emphasis on composition and structure.

TABLE 5: Descriptions of High School/Community College and UW “Hard” Papers

	High School/CC Challenging Papers	UW Challenging Papers
Informative research paper, Science	1. A 20-page research paper on human evolution. I listed all the facts that we know so far. I didn't give a thesis statement or have anything I was trying to prove....The Internet was a big resource. Also the Seattle Public Library, but they don't have much current information on human evolution. I also went to Barnes and Noble and read some books for free. This is a field that is changing a lot right now....	1. The 15 page paper for Ocean 200. I picked a topic that sounded interesting to me, and it was—on how El Nino affects Northwest fisheries. The whole El Nino phenomenon has been studied extensively, but there has been no research on Northwest fisheries and El Nino. It was a lot more research than writing, and not very successful research. I was trying to do an informative paper. With the changes in temperature, a lot of the species shift northward. You hear about people catching warm water species off Oregon and so on because of that. But there just wasn't enough in the journals that got more specific than those kinds of anecdotal stories in the newspapers. The goal was to use at least one piece of information from all the types of resources available--journals, internet, magazines, books, newspapers, and so on.**
Literary argument/analysis, English	2. It was a paper about The Scarlet Letter. I don't remember what my thesis was, but it was very complex and took a lot of searching through the book to find evidence. It was 5-6 pages long.	2. We were analyzing Marie de France's medieval poetry--the lays of Marie de France. We were making connections between that and the works of William Blake. I don't remember exactly what I argued. We had to kind of put them together in a comparison. We had to do library research, and I did internet research that was not required. Paper was 5-6 pages long
Personal essay and literary argument, English composition	3. It was probably in the English 101 course--the 'describing yourself' type of assignment. I find that really hard to do. I find the subject matter boring, because I already know what happened to me.*	3. My second English paper on sexism. We were assigned a paper--we had a choice of either sexism or racism and how they related to two stories we had read. I chose sexism and argued that sexism was spread by the media. It took me a long time to write that paper. It was hard to analyze the stories and their relationships to sexism. It was hard to bring out my own opinions on sexism; I had to probe deeply. It was five pages long
Informative and argumentative research papers, environment	4. It would probably be the research paper I did at Everett CC. It was 10 pages long--longer than those I had done previously. The instructor was very demanding. I wrote about invasive species--species from other areas that are brought to our environment...and are now causing havoc in our environment. I looked at the zebra mussel from the Great Lakes area and the green crab here in our area. The paper was more an informative paper with a conclusion that we need to look more consciously at the economic impact of many of the things we are doing on our environment. I did library and internet research for this paper.*	4. The Environment 201 paper. It was the culmination of the whole quarter in the section. We took the part of one of the groups involved in the Mountains to Sound Greenway Project. Each group of three or four people took a stand on this and gave a presentation. At the very end of the course putting together all the presentations of each group and your own research, you came up with a plan from all of this. We had to use stuff from everything we had done in class, as well as our own research. I argued for limited recreational use and sustainable use, along with a greater importance on preservation than on recreation. The paper was 4-6 pages long.**

TABLE 5(cont'd): Descriptions of High School/Community College and UW “Hard” Papers

	High School/CC Challenging Papers	UW Challenging Papers
Arguments about events, History	5. It was regarding the Mexican Revolution for Social Studies. I was talking about the [social, political, and economic] change. I was comparing before and after the Revolution. I had to do research for the paper, and it was five typed pages long. The paper was hard, because I wasn't quite sure how to put it into a nice, tight little format like you do in English. It didn't quite fit the structure I had been taught."	5. The Roman History—a paper that I am in the process of writing right now. It is difficult, because there is nothing to go on except my own analysis. We are to consider when the work was written, who wrote it, the position of the writer in society, the genre of the work and the limits of that, and, in general terms, what conclusions can be drawn from the author. Our assignment is to critically evaluate a primary source. I am looking at Suetonius writing the biography of Caligula. What makes it especially difficult is that Suetonius was not concerned with facts, so most of his work is about erections and affairs. What significance does that have for the Roman Empire? I am working on this right now. It is requiring outside research—library and internet research. 10 pages
Arguments (?) about issues, English	6. I wrote a paper on teenage pregnancy. It was for English, Junior honors. It wasn't hard because she pretty much told us what to do. If you went by that, it was pretty easy. They always told us what to do, and I liked that.	6. Probably the paper in English 131 where we had to do research. We had to look throughout history at a major event and research the way it has been changed throughout the years. I picked Columbus's arrival in the new world, and how that has changed—how he was looked at as a hero and now is kind of a villain. We had to get old textbooks and articles off the databases. It was six pages long.
Informative (?) English and Art	7. The hardest paper was in my precollege writing class. We had to do a research paper. It was really hard because we had to get a lot of quotes and do a lot of research. There was a minimum quotation requirement—like 10 pages and two quotations per page. It was supposed to be about a social conflict that was controversial. I wrote about endangered species and extinction. My main point was that endangered species were probably not as much thought about as they should be."	7. The second one [for my Art class] was to interview a living artist and write about them, which involved reading all the stuff that had been written about them, so you didn't ask questions that had already been asked. That was more difficult because it didn't fit into academic style writing with thesis, points, evidence. It was more biographical than an attempt to convince you of something. It was presenting facts. There was some conclusion drawing between what you thought had influenced the artist's style over the years. I used articles about the artist in the paper in addition to the interview. 5 p.
Lab reports	8. I had to do a 25 page research paper on raspberries. The hardest part was the actual experimentation that I had to do about them. It wasn't necessarily the writing. I focused my paper on two-trellis systems—one which is traditional and the one which exposes the berries to more light. I looked at five factors of the leaves, and my hypothesis was that the raspberries would be stronger and longer in every way because of the split trellis system. Evidence bore out my hypothesis. I referenced 25 sources in the paper. * Papers reported by transfer students.	8. Chem labs are always difficult. They were really time consuming, because they want a lot of information in those, and you have to use Excel and make graphs, and incorporate the data in all sorts of ways. They are usually seven to ten pages long. Most of it is summarizing your data in charts and graphs and then talking about what the data means. A lot of things we do is verify different laws in chemistry by our experiments. And then we have to compare our data to actual literature values. So we have to figure out our errors and why we might have them, or how we could better the procedure to get rid of our error. ** Papers reported by transfer students.

TABLE 6: Four Students' Most Challenging Papers

Previous Institution	UW
<p>1. I had to do a research paper and in completing it, we had to find first hand sources. It had to be 10 pages long. Mine was on the Apollo mission. I was giving the history of it, going over everything that had happened, just kind of stating the facts. There was no argument in it. Finding the sources was hard and that we had so much information to cover and I was only a sophomore when I wrote it.</p>	<p>1. The first one for Communication 200. We had to find two articles from two different newspapers—one national and one local. Same topic, same day, same story. WE had to compare and contrast the different elements in the stories. I can't remember what I focused on. This assignment was hard because it was a lot of information to write about. You had to know what you were talking about in order to really start this paper. I had to get the articles and really know what was different between them. You had to know what elements different articles had and what the differences were between the two kinds of newspapers. So you had to do a lot of studying before you could even get to it. 6 pages long.</p>
<p>2. I did a Romeo and Juliet project where I analyzed aspects of the play. We went through and looked at symbols in the play. I don't remember the specifics of the project, but we wrote a 2-3 page paper on it. I think tying together the different ideas was the challenge in the paper.</p>	<p>2. The final paper for the History/English 198 link was a history paper where you had to go to the library and find primary and a secondary document, and that was definitely the hardest. I had tried to avoid the library system like the plague and I was really forced to go in there and use microfisch. The research was hard and trying to think like a historian was hard, but I really liked having the comp class because we really worked up to it. I did mine on Rosie the Riveter, so my thesis was that women were called up to work through propaganda like Rosie, and then they accepted the fact that they had to go back home after the war. I had to analyze what women were saying and use that as evidence to support my thesis.</p>
<p>3. Probably a research paper about the right to die, doctor-assisted suicide. It was a term paper for American Government. Trying to express my opinions was difficult and trying to make an argument. Basically the hard part was trying to decide what I thought.</p>	<p>3. Probably a paper in English 131. where we had to do research. WE had to look throughout history at a major event and research the way it has been changed throughout the years. I picked Columbus's arrival in the new world and how that has changed—how he was looked at as a hero and now is kind of a villain. WE had to get old textbooks and articles off the databases. 6 p.</p>
<p>4. My English 102 course, which was research preparation, which was the first time I wrote 10 pages. It was an informative paper on hate crimes. I compiled a lot of information on crime. I described statistical information, used anecdotal evidence. There were branches of hate crimes atimed at specific minority groups. What was hard for me was not interjecting all my personal feelings. It is hard to stay objective. Getting the research was easy, but trying to stay focused was hard.</p> <p>TRANSFER STUDENT</p>	<p>4. Currently, I'm working on a paper where I'm taking two sociological papers and trying to fuse them together. One of them is a theory and the other is a research study. The question is: "Does the research validate the theory?" It is a difficult paper because the research project I am reading is from Howard Becker's On Becoming a Marijuana User. It's difficult to say whether Becker has "the sociological imagination," and if so, why. I am applying Becker to Mills' article about what researchers need to do in their research. I have to pull out all the things Mill says the sociological imagination is and then deduce from what Becker gives me if it fits. I am going to argue that Becker does use Mills' sociological imagination because he explains the individual in the context of society and demonstrates that he understands them both. And that is what Mill argues. 5 pages.</p>

F. Did Students Think Their Writing Improved in Their First Year at UW?

We asked students in spring 2000 whether they thought their writing had improved or not. About 72 percent said that they believed that their writing had improved; 24 percent said that they did not believe that their writing had improved, and about four percent said that they could not tell, one way or another, whether their writing had improved. Differences between freshmen and transfer students' responses were slight—with 75 percent of the freshmen and 69 percent of the transfer students stating that their writing had improved; 24 percent of the freshmen and 23 percent of the transfer students reporting that their writing had not improved; and one percent of the freshmen and four percent of the transfer students stating that they could not tell if their writing had improved or not.

Reasons for Improvement

We asked students to explain their answers, as well, and many students mentioned more than one improvement in their writing, as this student did:

- “I learned a little more organization, a little more attitude--before I think I tried too much not to offend people. I could write for The Daily now.”

We have listed the 10 most frequently given explanations for writing improvement in order of their frequency, along with student quotations to illustrate them, below.

Improved in Argumentative Writing. Both freshmen and transfer students noted improvement in argumentative writing, which is consistent with the focus on argument that we have seen so far in the writing required of UW students. Some students mentioned specific aspects of argumentation that they had improved on, such as using a controlling thesis and evidence. Others referred generally to improvement, as the quotation illustrates:

- “I feel more confident writing an argumentative paper. We did a lot of that in English 131. We worked on writing theses too. I had to write a long paper in high school for senior project, but it was just presenting information.”

Learned to Organize or Structure Papers. Students also pointed to improvements in structure and organization. Both freshman and transfer students noted this improvement. The following quotations illustrates this group of students' responses:

- “Mainly clarity and organization. Organization because I've had to write so many more papers in such smaller chunks of time, that unless you make a really good outline before you start, you waste a lot of time.”

Gained More Writing Experience/Practice: Freshmen and transfer students mentioned the positive effects of being required to complete many writing assignments. The practice of writing was important to them, as the following quotation states:

- “I have just had a larger variety of having to write in different ways and the expectations of different teachers, which I think really forces me to learn better. You learn different techniques in your writing.”

Learned about writing for different disciplines: Slightly more transfer students than freshmen noted that they were beginning to be aware that disciplines have differing writing practices, purposes, and conventions. As one student said:

- “I’m learning that you write differently for different subjects, like history, or sociology, or politics.”

Became Better Focused in Writing; Learned to Connect Points. Both freshmen and transfer students reported learning to focus all parts of their papers around one central point and draw connections between those parts. One student puts it this way:

- “I can be more focused now. I recognize that I have to be more focused instead of as generalized as I used to be, as I tend to be. I realize that what the professors are looking for here is a focused paper, rather than one that touches all the bases lightly. They want one that touches one base lightly.”

Improved Grammar, Vocabulary, Sentence Structure: Only freshman noted improvement in writing mechanics. They mentioned improvement in grammar, vocabulary, and sentence construction. The following quotation represents this group:

- “I think English 131 helped me out a lot. We wrote a lot there and she went over lots of grammar. I am horrible at that, so that was really nice.”

Became Better at Self-critique and Revision: Again mostly freshmen, but a few transfer students, as well, mentioned that they were now better able to read their own writing critically and to identify needed changes. All freshman composition courses (English 104, 105, 111, 121, 131, 197, 198) focus on revision, so this finding is not surprising. One student’s quotation illustrates that often it takes time to move from self-critique to revision in writing.

- “I think I recognize what is wrong with my paper more. I don’t think I fix it well, but I can recognize it.”

Learned from Feedback from Faculty and Peers on Writing: Both freshmen and transfer students mentioned the value of feedback in improving their writing. As one student said:

- “[Before] when I wrote out my chem lab reports, they just graded it and they didn’t even give me any advice. They just graded ‘good.’ But in Chem 162, the TA gave me a 21 out of 30 and that is the worst one I had so far. So I asked the TA about it. And he really explained what I needed to do to form the formal report. I figured I didn’t even know how to do that yet even though I had taken other chemistry. So I am getting information on how to do that.”

Became Better at Reading and Reading Critically: Several students pointed out that reading helps them think about and improve their writing. Most of these students were freshmen. This is important, because in interviews and email messages, students in UW SOUL have reported having great difficulty with the amount and level of reading required at the UW. They often pointing out that far less reading is required in high school. The following quotation illustrates the reading/writing connection:

- “I am able to read better now, and that has helped my writing. All the writing we had to do here had to be on comprehensive reading. I really did not have any of that when I came here. Also, my writing is more clear. When you read more, you are capable of writing better, because you are

reading good form. So you are also teaching yourself something about writing at the same time you are reading.”

Became More Self-confident about Writing Ability. Both freshmen and transfer students pointed out that writing leads to confidence in one’s ability to write. As one student said:

- “Writing essays in completely unrelated fields has really stretched me, but at the same time has shown me that I can do that. I feel more confident now, knowing I can do this. I was less confident winter quarter when I wasn’t doing as much writing, now it flows more easily.”

Reasons for No Improvement

About 24 percent of the UW SOUL students interviewed said that their writing had not improved in their first year at the UW. Most of these students—both freshmen and transfer students alike—said that their writing had not improved because they had not done much writing or enough writing for it to improve. Two students quotations illustrate this position:

- “Probably not. I haven’t had to write that many papers. First quarter is the only time I’ve had to write papers. It was a lot for me then. But it is hard to see the improvement since I haven’t done any papers since then.”
- “I think it has probably gone downhill, because I haven’t practiced it. I used to be a really really good writer, because I had written a lot. I can’t remember effective sentence structures. I use the English writing center sometimes and have them proof my papers.”

In addition, several of the students, freshmen and transfer students, said that their writing had not improved because they had not gotten any feedback or help from faculty on writing, as these students stated:

- “I haven’t had to do anything out of the ordinary, and I haven’t had any professor input while I was writing the papers. I pretty much did them all on my own. I see no potential improvement if I am just plugging along on my own. They may be a little better because of maturity, but not because of what I have learned at this university.”
- “I am taking primarily math and science classes, and the feedback on my chemistry labs, as far as improving my technical writing, has not been very thorough. It has been on understanding the concepts and getting the ideas right, rather than on getting a well-written report. I don’t think that there is time for that.”

Finally, a few students said that their writing had not improved at the UW because the assignments they had written were not challenging. One student put it this way:

- “I think it has stayed the same. I haven’t been challenged as much. In high school, I took a college level writing class, and it focused a lot on grammar, and writing essays, and I haven’t had anything like that here. It has basically been doing what you already know how to do focusing on content.”

G. How Much Did Students Think They Learned About Writing in Their First Year at the UW?

As part of the UW SOUL, all participants were surveyed at the end of each quarter during the 1999-2000 academic year via the Internet. The general purpose of this rather long set of surveys was to allow students to describe and assess their academic experiences. Surveys contained a set of questions that were identical from quarter to quarter, but also we add questions periodically.

Approximately 280 students responded to each survey and approximately 235 students responded to all three surveys. Numbers varied from item to item, but the vast majority of students who responded to each survey responded to all items.

As part of this survey, we asked students questions about gains in writing. Table 7 shows the averages for each question in each quarter and then provides a weighted average for the whole year. As the table shows, students felt that they learned the most about writing at the UW during fall quarter. In particular, students reported learning the most about writing argumentative papers in fall quarter, and learning in this area, along with learning about drafting and revising, declined in each subsequent quarter. Students' learning about informative writing, in contrast, declined between fall and winter quarters, but increased somewhat in spring. These changes are probably likely explained by the large number of freshmen who take English 111, 121, 131, 197, and 198—the composition courses—in fall quarter. Those courses all require argumentative writing, and most of them require students to move through a draft/feedback/revision process for at least some major assignments. The movement of students' learning how to write informative papers is likely explained by the number of students enrolled in chemistry courses that require lab reports (Chemistry 120, 142, 152, and 162).

In the same surveys, we gave students a list of items and asked them to indicate which of them helped their learning that quarter. We also asked them which they did not do that quarter. The three items relevant to writing and the average of students' responses, excluding the "did not do" responses, are shown on Table 8. As with the amount learned, the level of help that writing papers/essay questions gave to students' learning declined from fall quarter to spring. The amount of learning that writing papers afforded dropped after fall quarter, as did the percentage of students who reported writing papers. This same pattern is true for learning from the draft/feedback/revision process. Learning from taking essay exams, however, gives us a slightly different picture. As the numbers on Table 8 show, more students are taking essay exams each quarter, but they report learning less over time from doing so.

TABLE 7: UW SOUL Survey Questions on Learning in Writing, 1999-2000

How much did you learn this quarter about each of the following? (Students selected from a 4-point scale where 1 = "Zero"; 2 = "A little"; 3 = "A moderate amount"; and 4 = "A lot.")	Fall 1999	Winter 2000	Spring 2000	Year
Writing papers that make and support an argument DEFINITION: A paper is defined here and below as a written response to an assignment that you worked on, at least in part, outside class, which was longer than two typed, double-spaced pages, and which was graded, either numerically, alphabetically, or with symbols, such as checks, pluses, or minuses.	2.54	2.41	2.28	2.41
Writing papers whose main purpose is to present information	2.20	2.13	2.20	2.18
Writing drafts of papers and using feedback to revise them effectively	2.39	2.19	2.03	2.20
Writing answers to essay questions on exams.	2.13	2.22	2.10	2.15

TABLE 8: What Writing Activities Helped Students' Learning?

What helped your learning? (Students selected from a 4-point scale where 0= "Didn't do this"; 1 = "Wasn't Helpful"; 2 = "A little helpful"; 3 = "Somewhat Helpful"; and 4 = "Very Helpful.")	Fall 1999		Winter 2000		Spring 2000		Year	
	Av	% Did not do	Av	% Did not do	Av	% Did not do	Av	% Did not do
Writing papers	3.05	14	3.00	20	2.78	22	2.95	19
Taking essay exams	2.84	39	2.76	37	2.56	31	2.71	36
Being asked to review and assess my own work (This would include the draft/feedback/review process in writing.)	3.00	26	2.89	32	2.85	38	2.92	32

In addition to asking students about writing, we also asked students survey questions about how much they learned about critical thinking and problem solving. We include these results as Table 9 in this report because there is often a close relationship between writing and critical thinking/ problem solving. However, we need to make note of four caveats before we draw conclusions from these results.

- First, students demonstrate critical thinking and problem solving in a number of ways in their courses besides writing. If we only look to writing to determine how much or where students are doing critical thinking and problem solving, we will miss a great deal of the work they do in these areas.
- Second, we should note that modes of thinking and how they are defined vary greatly from one discipline to another, and often students are unaware of those differences. While we tried in our survey to ask about a variety of "thinking" activities that disciplines may regard as critical thinking or "problem solving activities, our list was not definitive.¹³
- Third, the thinking categories described on Table 9 are not mutually exclusive. The first item on the table that addresses learning "Information, theories, and perspectives from your classes" appears to contrast with the kinds of activities that ask students to think about or use information, theories, and perspectives that follow that item. However, students may be learning information, theories, and perspectives at the same time that they are "thinking critically about issues"—in the writing of a paper for political science, for example, or in making a presentation for a speech communication class. Therefore, we cannot assume that any one of these categories excludes the others.
- Fourth, more than two-thirds of the students in the UW SOUL entered the UW as freshmen. It is possible, and even likely, that at the time they filled out these surveys, they did not yet fully apprehend the distinctions between these kinds of activities. The UW SOUL report on critical thinking and problem solving in the first year provides a better picture of critical thinking challenges students met in their first year (<http://www.washington.edu/oea/0118.pdf>).

¹³ A more complete picture of the critical thinking that students are doing in the disciplines at the UW can be found in two UW SOUL reports: Spring 2000 Interviews: Critical Thinking and Problem Solving, by Fisher, Beyer, and Gillmore (December 2001) <http://www.washington.edu/oea/0118.pdf>; Critical Thinking and Problem Solving in the First Two Years, by Fisher, Beyer, and Gillmore (September 2002), forthcoming.

The value of the results displayed in Table 9, then, is that they give a very general picture of the kinds of thinking students think they are doing in their first year at the UW, and much of that thinking—but not all—is done in service of writing. As the table shows, students are learning the most about information, theories, and perspectives. They are learning the least about doing the kind of thinking required to create or design something. While the numbers for critical thinking show slight declines or increases over the course of the first year, the differences are so slight that we can draw no conclusions from them. We will be able to learn more about change over time when we look at similar data from the second year.

The survey results confirm students’ interview responses regarding how their writing has improved. Results show that students feel that they are learning to write argumentative papers, as well as informative papers and that they have had some experience with drafting and revising in their first year at the UW.

TABLE 9: Students Responses to How Much They Learned about Critical Thinking

How much did you learn this quarter about each of the following? (Students selected from a 4-point scale where 1 = “Zero”; 2 = “A little”; 3 = “A moderate amount”; and 4 = “A lot.”)	Fall 1999	Winter 2000	Spring 2000	Year
Information, theories, and perspectives from your classes.	3.32	3.29	3.25	3.29
Thinking critically about issues.	2.90	2.91	2.83	2.88
Exploring questions, such as “What does this mean?” “Why is this important?” “Why did this happen?” or “What are the implications of these results, outcomes, or choices?”	2.89	2.88	2.69	2.82
Critically examining my own thinking, arguments, or opinions.	2.82	2.71	2.70	2.74
Constructing arguments to support my own ideas. (Examples: applying a theory of deviance to a newspaper account of a murder, applying a concept, such as feminism, to a text)	2.68	2.49	2.42	2.53
Evaluating the validity and accuracy of information.	2.46	2.37	2.41	2.41
Using a variety of sources to define and solve problems. (Examples: gathering information about a patient and diagnosing medical and other needs, listening to a group of people discuss a series of problems they are having with a computer program and providing a solution, or identifying the primary needs of a client and offering solutions.)	2.26	2.32	2.18	2.25
Creating something original. (Examples: a poem, a painting, a dance, a theory)	1.82	1.89	1.90	1.87
Designing something. (Examples: a bridge, a landscape, a scientific study)	1.68	1.79	1.88	1.78

CONCLUSIONS AND IMPLICATIONS FOR INSTRUCTION

Seven conclusions based on the results presented in this report and their instructional implications follow. As we think about both the conclusions and their implications, we need to remember that this report focuses only on the first year. UW SOUL data collected between 2000-03 may change our thinking.

1. The number and length of papers that students write in their first year at the UW is nearly the same as that which students reported doing five years ago. It is also about 1.5 papers and 10 pages less, on average, than the amount of writing that undergraduates report doing at Harvard University. Because of the large number of students taking freshman composition in their first year at the UW and because we know that there are departments that require little writing from majors in their junior and senior years, we can expect these numbers to decrease—or at least to become unevenly distributed, with some students doing a great deal more writing and others doing considerably less.

Can we say from these results that students are doing enough writing at the UW in their first year? This is a question that only faculty can answer, and its answer depends on what faculty want students to learn about writing in their first year at the UW. While students believe that “practice makes perfect,” what we know about the acquisition of writing skill suggests that learning to write effectively is more powerfully affected by how much students had to think and revise their papers than it is by how many papers they wrote. Therefore, if we are to improve the writing of undergraduates, we might shift our focus to what they are writing and how they are learning to write those papers, rather than look further at how much writing they do.

2. In addition to formal essays and reports, students are writing many short papers for their courses. These papers, 1-2 pages long, usually make use of writing as a way of helping students learn or engage with course material. As such, they are effective learning tools. However, their usefulness in helping students improve their writing is limited. As with all papers, unless these short pieces require students to make arguments—critically analyzing required texts, for example, as opposed to summarizing them—or unless they carry a substantial portion of students’ final grades, students do not spend much time, thought, or energy in writing them. This may be acceptable if the purpose in making such assignments is to keep students actively engaged in course reading or concepts. But we should remember, that while such assignments may contribute a great deal to students’ understanding of course material, they often contribute little to students’ understanding of how to write effectively.
3. About three out of every four freshmen and three out of every five transfer students experience a difference between the writing they are required to do at the UW and the writing they have been required to do at their previous institutions. One reason for this difference is that students are required to write arguments about issues, ideas, and events at the UW. Students describe their most challenging writing at the UW as argumentative writing.

Another major difference is that at the UW students are required to write those arguments and other papers for disciplines, which have purposes, practices, and conventions for writing that are often a mystery to students. The mere discovery that writing is shaped by disciplines is news to freshmen, as well as to some transfer students. Figuring out what those good writing practices are in one discipline or another is a second discovery, frequently made when a student confronts a set of “requirements” for a specific paper assignment in history, philosophy, or chemistry, to name some examples, that is foreign to them. Often rather than seeing these requirements as part of the way the discipline creates knowledge, students regard the requirements or assignment demands as emerging from the whims or preferred writing styles of their individual TAs.

These two differences are related, because most of the writing assignments students must complete are arguments, and those assignments are given in every discipline. Therefore, if we are to improve students' writing, it seems necessary to increase instruction in writing in the courses that assign papers. This is particularly necessary at the 100- and 200-levels, but, because transfer students also have difficulty navigating these two differences, courses that are gateways to majors should also consider integrating specific instruction in writing in the major into their courses, as well. In addition, the UW needs to do what it can to make faculty at high schools and transfer institutions that typically send their students to our institution aware of the kinds of writing assignments their students will need to complete to be successful here.

4. Faculty assigning papers should be aware that the kinds of papers students consider challenging ask students to make arguments consistent with arguments in the discipline assigning them and they require students to use resources outside themselves to support those arguments. The papers require students' time and thinking, and they are carefully graded. Furthermore, challenging papers are likely to have moved through a draft/feedback/revision process. This last point often is counter-intuitive; some instructors may think that giving students feedback and opportunities to revise makes writing easier for students. However, while it may be true that students produce better papers as a result of having gotten feedback and revising drafts, students do not report that such opportunities make writing easier.
5. Students tend to find papers from one to four pages long easier than papers that are five or more pages long. Short paper assignments may be just as complex or require just as much time and thought as longer papers do; however, students often perceive short papers as less important than longer ones. This is particularly true if the short papers ask for information or opinion without support and if the short papers do not constitute a significant portion of the course grade. It is possible, therefore, that students' performance on papers under five pages might be worse than their performance on papers five pages or longer. This study did not look at students' paper grades, so we cannot determine whether this is, in fact, true. However, the papers students describe as their easiest average four pages or fewer, and they speak of those as taking a short time to produce.
6. The data on transfer students' writing in their first year at the UW suggest that after the freshman year, most students have few opportunities to write drafts, get feedback on them, and revise those drafts for a grade. In fact, it is likely that after they fulfill their composition requirement with English 104, 105, 111, 121, 131, 197, or 198, students have few if any opportunities to draft and revise their papers. Furthermore, one of the ways the UW's W-course requirement changed in 1994 was that the UW stopped requiring that students be given the opportunity to draft, get feedback on, and revise their papers in writing-intensive courses. Yet research on writing has demonstrated that such focus on revising one's own work is critical even if students are only to improve their grammatical skills, let alone their ability to reason, use evidence, and use disciplinary conventions and practices.

If faculty, lecturers, and the graduate students responsible for assigning and evaluating student writing at the UW—those who create and operate the actual “writing program” on our campus—believe that students' writing needs improvement, then we must find ways to make it possible for them to require that students take their writing through a draft/revision process. Through such a process, students can be taught to read their own work critically and to identify strategies for improving it.

7. Students believe their writing improves in their first year in the areas with which they are least familiar—writing arguments and writing in the disciplines. They more often attribute the improvement to “practice,” than to “instruction.” While we did not review or analyze the writing students did in their first year, their awareness of the significance of these two areas suggests that they have learned something about them, whether or not they can yet put that learning into practice.

APPENDIX A: Courses Where Students Did Their Most Challenging Writing
in Their First Year at the UW and Number of Students Mentioning Those Courses

Class		Class		Class
AmerEthnicSt (2)		English (cont'd)		MAT 411 (1)
AES Chicano Themselves		English 105		Neurobiol 301 (1)
AsianAmerSt 395		English 111		Oceanography (2)
Anatomy 445 (1)		English 121		Ocean 200
Anthropology (2)		English 131		Ocean 201
Anthropology		English 182		Philosophy (5)
Anthropology 100		English 197/198 w/Art Hist, History, Poli Sci201, Philos100, Soc370, and general (6)		Philosophy
Architecture (2)		English 200		Philosophy 100 (2)
Architecture 350		English 242		Philosophy 240
Architecture 351		English 281		Philosophy102 (w/English 198)
Art (5)		English 353		Political Science (5)
Art 354		Environ Sci (2)		Political Science
Art History		Environ Sci 110		Poli Science 101 (2)
Art History 201		Environment 201		Poli Science 201
Art History 203		Gen Studies 197 (1)		Political Science 249
Art History 331		Geography (4)		Psychology (2)
Bus, HRMOB 300 (1)		Geography 100		Psychology 205
Chemistry (8)		Geography 242		Psychology 209
Chem 142 (2)		Geography 360		Russian 331 (1)
Chem 152 (3)		Geography 495		SIS (2)
Chem 162 (2)		Honors (5)		SIS 200
Chem labs		H Arts&Sci 222		SIS 202
Classics 430 (1)		H Arts&Sci 251		Social Welfare (2)
Communications (3)		H Arts&Sci 252B		Social Welfare
Communications		H Arts&Sci 253B		Social Welfare 402A
Commun 200 (2)		H Arts&Sci 261		Sociology (3)
Comparative Lit (4)		History (8)		Sociology 270
Comp Lit		History		Sociology 271
Comp Lit 200		Roman History		Sociology 320
Comp Lit 270		History 111		Spanish (2)
Comp Lit 320		History 112		Spanish 201
Drama 302 (1)		History 113		Spanish 302
Engineering (2)		History 201		Technical Com (2)
Engineering 100		History 210		Tech Comm
CivE 363		History 275		Tech Comm 231
English (16)		History 388		Women 200 (1)
English 104		Linguistics 203 (1)		

APPENDIX B: Courses Where Students Did Their Easiest Writing
in Their First Year at the UW and Number of Students Mentioning Those Courses

Course	#Stu	Course	#Stu
American Ethnic Studies	2	Forest Resources 101	2
American Indian Studies (1)		Geography	4
Asian American Studies 205 (1)		Geography 270 (1)	
Anthropology	8	GS 199—TRIG seminar	1
Anthro (5)		Honors Arts&Sciences 252	1
Anthro 100 (1)		History	4
Anthro 209 (1)		History 112 (1)	
Archaeology (1)		History 201 (1)	
Art	1	Linguistics	3
Biology	2	Marketing	1
Chemistry	8	Music	2
Chemistry 115 (1)		Music 120 (1)	
Chemistry 120 (1)		Ocean 201	1
Chemistry 142 (1)		Philosophy	2
Chemistry 162 (1)		Political Science	4
Chemistry labs (1)		Political Science 202 (2)	
Communication	5	Political Science/English 198 (1)	
Communication 200 (3)		Psychology	3
Communication (2)		Psych 209 (1)	
Comm&EnvironPlanning301	1	Psych 345 (1)	
CompHistoryofIdeas110	1	Rehab 444	1
CompLit/ English 198	1	Scandinavian Language	1
Dance 101	1	Social Welfare 404	1
Drama	2	Sociology	7
Engineering	2	Sociology 110 (1)	
Engineering 100 (1)		Sociology 270 (1)	
English	24	Sociology 271 (2)	
English 111 (2)		Sociology 275 (2)	
Engl 131 (10)		Spanish	4
English 197 (1)		Spanish 103 (1)	
English 198 (2)		Spanish 303 (1)	
English 200 (1)		Speech CMU 373	1
English 331 (1)		Technical Communications	1
English 381 (1)		Urban Planning	1
Environmental Science	2	Vietnamese	1
Environmental Science 111 (1)		Women's Studies 200	1
Environmental Science 250 (1)		Zoology 119	1
FIG seminar	1		