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**The Junior/Senior Writing Study:
1991-1993**

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Interdisciplinary Writing Program

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"[Writing instruction] was excellent--A+. She wrote out three pages on what she wanted out of the paper. She went over it in class, too, and she went to each group separately to talk to them about their drafts. I went in to talk to her about my part in our [paper]. We could turn in three rough drafts if we wanted to but one was mandatory."

"We didn't receive any writing instruction. I think the purpose of this class was to find out whether we know how to do things, rather than to teach us."

--Two students' assessments of the writing instruction they received in courses assigning papers

ACKNOWLEDGEMENTS

We extend our thanks to Fred Campbell for supporting this research from its inception; to Ken Etzkorn for his help with credit possibilities and sorting, as well as for his good nature; to Tom Ridgeway for his graceful database constructions; to Rob Weller for his kind assistance with computer, joke, and coffee needs; and to our gifted research assistants--Teri Crisp, Bill Christmas, Kathryn Hogan, Patti Neff, and David Francis. Finally, we are especially grateful to Jerry Gillmore for his intelligent insights, questions, and demands and for his loving faith in us and in our work.

JUNIOR/SENIOR WRITING STUDY EXECUTIVE SUMMARY

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The purpose of this document is to report results from the Junior/Senior Writing Study, a two year assessment project that began in 1991. Focusing on the writing experience of approximately 100 students, the Junior/Senior Writing Study (JSWS) was designed to complete the description of writing at the University of Washington that the Freshman/Sophomore Writing Study (FSWS) began.

Our research design was similar to methodology used in the FSWS. We conducted quarterly interviews with our sample of 119 juniors, 40 percent of whom were transfer students. Interviews lasted approximately one hour and included numerical, true/false, and open-ended questions regarding students' coursework for the previous quarter. Students' answers were entered into a database during the interviews. To tabulate responses to open-ended questions, such as why students chose their majors, we read through all responses to the question, counting those that were repeated or similar, and noting responses that were unique. In addition to interviewing participants, we also collected all graded papers students had written, paper topics and instructions, and course syllabi, as well as students' grades from the registrar's office.

At the end of each year, we asked participants to write reflective essays. For these essays, students selected the two papers written during the time they had been in the study, which they considered to be their best and worst, as well as the paper that they had learned the most from writing, if that differed from their first two choices. Then, they wrote five-page arguments justifying their choices.

Students received six general studies credits--three for the junior year and three for the senior year--for participating in the study.

RESULTS

From the data gathered during students' interviews, we draw these conclusions about student writing during their junior and senior years at the UW:

1. Students can be expected to write about 14 papers in 43 percent of the courses they take in their junior and senior years, in comparison with about 13 papers in 28 percent of the courses they take as freshmen and sophomores. This means that when the average UW student graduates, she will have written 27 papers in 13 courses here--or 36 percent of the total number of courses she can be expected to take. She will not have written papers, therefore, in approximately 64 percent of her UW classes.

2. Most of the papers students write as majors are arguments about issues, events, or ideas (43 percent) or informative papers (38 percent). The number of informative papers students write increases steadily from the third quarter of the freshman year to the senior year. Only 14 percent of the papers assigned are literary arguments, compared with 24 percent of the papers students write as freshman and sophomores and 46 percent of the papers students write as seniors in high school.

3. Based on the five majors examined--business, English, history, psychology, and engineering--the types of papers juniors and seniors write and the writing experience that they have are shaped extensively by the students' majors, with the exception of psychology. Writing practices and demands from students' senior year in high school through their senior year in college are only consistent in the English major. All other majors require kinds of writing that students have almost no experience with as seniors in high school and little experience with as freshmen and sophomores.

4. Students (84 percent) feel that they learn the most about writing from courses in their majors. Indeed, we see clear evidence that as students move through their majors, they begin to identify "good writing" and themselves as competent writers with writing practices in those majors.

5. Because of the percentage of the students' grades they represent and also because of the way they are usually evaluated, short pieces of writing appear to students to be relatively unimportant, and, as a consequence, students tend to devote little time to them.

6. As they are currently designed and especially in business, group writing projects demand different skills from and offer different opportunities to each member of the group. They do not give each member equal practice in research, analysis, or argumentation, for example. Often, some members of the group do no writing at all when they are working with a group of other students on a writing project. Students who participate in many group writing projects often develop their own "specialties"--writing the background section, for instance, or doing the oral presentations for every paper they work on with others. Furthermore, there are currently no means of measuring these differences in experience and no consequences for students who do not participate equally with their peers.

RECOMMENDATIONS

1. UW students can expect to write papers in only 36 percent of the courses they take here. Because of the connections paper writing has with student engagement in course material and with students' learning, and because students, themselves, believe that they need to write more than they are doing at present if they are to become better writers, the UW needs to work to increase the number of courses that assign papers to undergraduates. Students need to write more papers at every level, but particularly at the freshman and sophomore levels. The UW should set a goal to have students writing papers in at least half of their courses by 1996 and in at least 75 percent of their courses by the year 2000.

2. Furthermore, faculty should assign argumentative or analytical papers, rather than or in addition to informative papers. Only inquiry-based papers, such as arguments, demand that students use the critical

thinking skills all UW graduates will need as they move into the working world or on to graduate school.

3. There are two gaps in students writing experience. The first is between high school and freshman writing; the second is between the writing students do in their first two years of college and the writing they do as majors. To help close these gaps, professors assigning papers need to give students explicit instruction regarding the writing demands of particular assignments and explanations about how those demands fit with the writing purposes, practices, and conventions in the major. There is a close link between methodology in a field and the writing practices in the field, and professors need to make that connection clear to students.

In addition, the University should engage in writing liaison work with area high schools, perhaps providing them with sample freshmen portfolios, so that high school teachers and counselors can give seniors actual examples of what to expect writing demands to be at the UW.

4. Group writing projects need to be so difficult that no one person could do the research, analysis, and argumentation any project requires by himself. Professors who assign group projects need to understand that the consequences for participation and non-participation in group projects in the college classroom differ radically from the consequences for participation or non-participation on the job. Therefore, professors assigning group projects need to monitor the participation of group members closely. Such monitoring will allow professors both to assess individual student performance and to evaluate the difficulty of the writing project itself.

5. While many JSWS students (38 percent) were happy with their writing experience as majors, just as many (38) believed that they should do more writing and that assignments should be more challenging. A third of the students in the Freshman/Sophomore Writing Study felt the same way, as did seniors surveyed in Gerald Gillmore's "1992 Survey of University of Washington Seniors." Because of these results, we urge all departments and faculty to make writing and writing instruction their first priority in the next years and to work together across the curriculum and separately in our own classrooms to provide UW students with rich writing experiences shaped by the clearly communicated contexts of our disciplines.

**THE JUNIOR/SENIOR WRITING STUDY
CONTENTS**

INTRODUCTION	1
METHOD	2
STUDY POPULATION	3
MAJORS	3
GRADUATION PATTERNS	5
EMPLOYMENT PATTERNS	7
STUDY PROBLEMS	9
WRITING IN THE JUNIOR AND SENIOR YEARS	10
PAPERS	10
SHORT PIECES OF WRITING AND ESSAY EXAMS	19
PROJECTS	21
STUDENT PERCEPTIONS OF THEIR WRITING EXPERIENCE	24
HOW DO YOU FEEL ABOUT THE WRITING INSTRUCTION YOU RECEIVED IN THE COURSES YOU TOOK THAT REQUIRED PAPERS?	24
ARE YOU A BETTER WRITER NOW THAN YOU WERE TWO YEARS AGO?	25
WHAT COURSES, IF ANY, TAUGHT YOU THE MOST ABOUT WRITING?	27
WHAT ARE YOUR STRENGTHS AND WEAKNESSES AS A WRITER?	28
DID THE PAPERS YOU WROTE DURING YOUR FIRST TWO YEARS IN COLLEGE PREPARE YOU FOR THE WRITING YOU HAVE DONE AS A JUNIOR AND SENIOR IN YOUR MAJOR OR NOT?	33
HOW WOULD YOU EVALUATE YOUR WRITING EXPERIENCE IN YOUR MAJOR?	33
WRITING IN FIVE MAJORS	36
BUSINESS MAJORS	36
ENGLISH MAJORS	47
HISTORY MAJORS	53
PSYCHOLOGY MAJORS	60
ENGINEERING MAJORS	64
THE FIVE MAJORS	69
CONCLUSIONS	71
RECOMMENDATIONS	73

LIST OF TABLES

TABLE 1: MAJORS	4
TABLE 2: SAMPLE TOPICS FOR ARGUMENTS ABOUT ISSUES, EVENTS, OR IDEAS--HIGH SCHOOL, FRESHMAN/SOPHOMORE, AND JUNIOR/SENIOR YEARS	16
TABLE 3: STUDENTS' PERCEPTIONS OF WRITING STRENGTHS AND WEAKNESSES	29
TABLE 4: SUMMARY OF PAPERS WRITTEN BY JSWS MAJORS IN FIVE DISCIPLINES	70

LIST OF FIGURES

FIGURE 1: REASONS FOR SELECTING MAJOR	5
FIGURE 2: EMPLOYMENT PATTERNS	7
FIGURE 3: STUDENTS' PERCEPTIONS OF THE EFFECT OF WORKING ON THEIR STUDIES	8
FIGURE 4: TYPES OF PAPERS WRITTEN, JUNIOR/SENIOR YEARS	12
FIGURE 5: TYPES OF PAPERS WRITTEN, FRESHMAN/SOPHOMORE AND JUNIOR/SENIOR YEARS	13
FIGURE 6: TYPES OF PAPERS WRITTEN, HIGH SCHOOL, FRESHMAN/SOPHOMORE, AND JUNIOR/SENIOR YEARS	14
FIGURE 7: STUDENTS' EVALUATIONS OF WRITING INSTRUCTION IN COURSES REQUIRING PAPERS	24
FIGURE 8: STUDENTS' ASSESSMENT OF WRITING INSTRUCTION IN COURSES OFFERING INSTRUCTION	25
FIGURE 9: STUDENTS' REASONS FOR WRITING IMPROVEMENT	26
FIGURE 10: STUDENTS' PERCEPTIONS OF WRITING STRENGTHS, 1991-93	30
FIGURE 11: STUDENTS' PERCEPTIONS OF WRITING WEAKNESSES, 1991-93	32
FIGURE 12: STUDENTS' ASSESSMENT OF THEIR WRITING EXPERIENCE IN THEIR MAJORS	34
FIGURE 13: TYPES OF PAPERS WRITTEN BY JSWS BUSINESS MAJORS	38
FIGURE 14: TYPES OF PAPERS WRITTEN BY JSWS ENGLISH MAJORS	48
FIGURE 15: TYPES OF PAPERS WRITTEN BY JSWS HISTORY MAJORS	54
FIGURE 16: TYPES OF PAPERS WRITTEN BY JSWS PSYCHOLOGY MAJORS	61
FIGURE 17: TYPES OF PAPERS WRITTEN BY JSWS ENGINEERING MAJORS	65

THE JUNIOR/SENIOR WRITING STUDY

Catharine Beyer and Joan Graham

The Junior/Senior Writing Study (JSWS) was designed to complete the description of writing at the University of Washington that the Freshman/Sophomore Writing Study (FSWS) began. Our aims in the JSWS were to describe the writing experience of students, this time as they moved through their majors, and to continue examining the feasibility of portfolio assessment as a means of evaluating student writing proficiency and as a tool for faculty development. In addition, we intended to continue exploring how students develop as writers through their undergraduate years in college.

This report presents some of our results. It focuses on the first aim mentioned above, that of describing students' writing experience during their majors. The report uses data from the quarterly interviews of the 76 students who completed all JSWS requirements and provides the following:

- a description of the study's methodology
- information on the study's population, including graduation and employment patterns
- discussion of problems inherent in the study
- a description of the general writing experience of study participants
- a summary of students' general perceptions of their writing experience
- breakdowns of the experience of students in five majors (business, history, English, engineering, and psychology), including sections on writing in the majors, student's perceptions of the majors, and students' descriptions of papers they wrote
- conclusions and regarding students' writing experience during their junior and senior years
- recommendations

A second report will describe the study's portfolio assessment results.

METHOD

At the conclusion of the Freshman/Sophomore Writing Study, we invited participants who had completed the study (98) to continue with us in the JSWS. Nearly all of them indicated interest in continuing, but by fall, 1991, when the JSWS began, only 20 elected to continue. Therefore, we contacted a random, stratified sample of 1,000 students in specific "popular majors" (such as business, engineering, psychology, English, history, and communications), as well as a group of students who listed themselves as "undecided" regarding majors, and invited them to participate in the JSWS.

Because we did not invite EOP or ESL students to participate in the FSWS, we did not include them in this sample. As our Fall 1991 report stated, study of these two populations was postponed because adding them would have doubled costs.

Although not accurately reflecting the ethnic makeup of the general UW population, the JSWS sample aimed to accurately represent the number of transfer students in UW's junior class (about 40 percent).

We offered students 6 credits--three for the junior year and three for the senior year--for participating in the study.

Students who agreed to participate and who had not been involved in the FSWS were asked to fill out a questionnaire regarding the courses they had taken and the writing they had done during their first two years of college. As we had done in the FSWS, we interviewed participants each quarter, beginning winter term 1992. Interviews lasted approximately one hour and focused on students' coursework for the previous quarter. Interviews contained numerical, true/false, and open-ended questions, and students' answers were entered into a database during the interviews. To tabulate responses to open-ended questions, such as why students chose their majors, we read through all responses to the question, counting those that were repeated or similar, and noting responses that were unique.

At the time of the interviews, we collected all the graded papers students had written the previous quarter, paper topics and instructions, and course syllabi. We also collected students' grades from the registrar's office.

At the end of each year, we asked participants to write reflective essays. For these essays, students selected the two papers written during the time they had been in the study, which they considered to be their best and worst, as well as the paper that they had learned the most from writing, if that differed from their first two choices. Then, they wrote five-page arguments justifying their choices.

STUDY POPULATION

By the end of fall quarter, 1991, 151 students said they were interested in participating, but by winter quarter only 119 of those students registered for interviews. Of those, 25, or 21 percent were students who had completed the FSWS, and 48 (41 percent) were transfer students. Most of the transfer students--61 percent--had transferred to the UW from one other college, usually a Washington community college. But 39 percent had attended two or more colleges before coming to the UW.

The vast majority of JSWS participants--96 percent--were Caucasian; the remaining four percent were Asian-Americans. Fifty-two percent were females; 48 percent were males. They ranged in age from 18-64, with the median age being 22 years.

At the end of spring quarter, 1993, only 76 students had completed all required study tasks--63 percent of those who began. The ratio of transfer to non-transfer students stayed constant; 41 percent of the 76 remaining participants were transfer students. Seventeen of the Freshman/Sophomore Writing Study participants remained in the Junior/Senior study--85 percent of those who began it.

This difference in attrition rates--37 percent for two-year participants and 15 percent for four-year participants--is significant and is likely caused by the personal relationships interviewers developed with four-year participants over time. Neither students nor faculty members often have the opportunity to remain in regular contact with one another over the full course of an undergraduate degree, but in JSWS, 17 students were able to discuss their experiences, usually with the same faculty member, every quarter they attended the UW.

MAJORS

At the beginning of our study, participants represented 19 majors and 11 double majors. Those majors and the number of students in them are listed in Table 1. As the Table shows, the JSWS has good representation in business, English, psychology, engineering, history, political science, and communications.

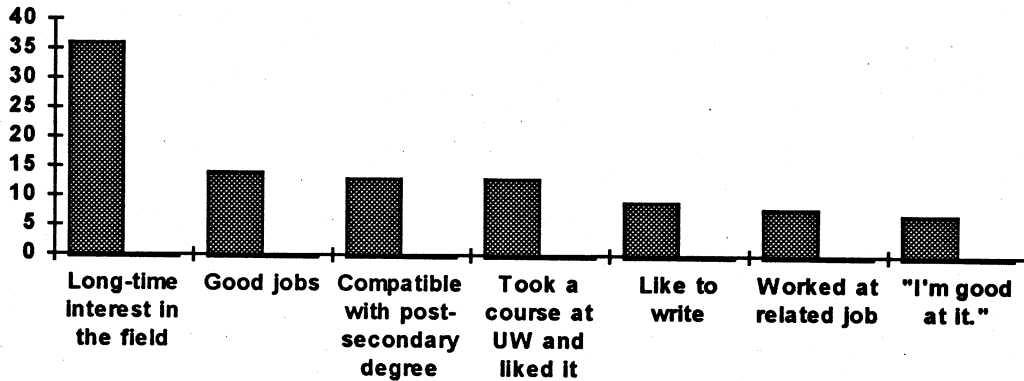
Students' reasons for selecting majors indicate that what they bring to the university in terms of interest and experience plays a more significant role in their choices than what they get while underclassmen here. Students sometimes mentioned more than one reason for selecting a major, but in nearly every case, one of the seven reasons listed on Figure 1 was dominant.

As the figure shows, 36 percent of the JSWS participants selected their majors because they had long been interested in the field. Fourteen percent stated that they had selected their majors based on their assumptions that those majors would lead to good jobs; and 13 percent chose a major that was compatible with plans for post-secondary degrees--usually in law or medicine. Another 13 percent said that they had taken some courses in the field and had ended up liking it. Nine percent selected their majors because they liked to write, and they believed those majors would allow them to do so. These students ranged from English to business majors. Eight percent had worked at and enjoyed jobs related to the majors they selected; and seven percent stated that they selected their majors because "I'm good at it."

TABLE 1: JUNIOR/SENIOR WRITING STUDY MAJOR

ANTHROPOLOGY	1
ART	1
BIOCHEMISTRY	1
BIOLOGY	2
BUSINESS	23
BUSINESS & ECONOMICS	1
COMMUNICATIONS	5
COMMUNICATIONS & ENGLISH	1
COMMUNICATIONS & POLI SCI	1
COMMUNICATIONS & PSYCHOLOGY	1
COMMUNICATIONS & SOCIOLOGY	1
COMPUTER SCIENCE	1
ECONOMICS	3
ECONOMICS & RUSSIAN	1
ENGINEERING (OR "PRE")	12
Aeronautical--1	
Chemical--1	
Civil--3	
Electrical--2	
Mechanical--4	
ENGLISH	15
HISTORY	11
INTERNATIONAL STUDIES	1
MICROBIOLOGY	1
POLITICAL SCIENCE	7
POLITICAL SCIENCE & ECONOMICS	2
POLITICAL SCIENCE & ENV. STUDIES	2
POLITICAL SCIENCE & FRENCH	1
POLITICAL SCIENCE & HISTORY	1
PSYCHOLOGY	14
ROMANCE LINGUISTICS AND GERMANICS	1
RUSSIAN	1
SOCIOLOGY	5
Society & Justice--2	
ZOOLOGY	1
ZOOLOGY & HISTORY	1

Figure 1: Reasons for Selecting Majors



GRADUATION PATTERNS

Our study results indicate that students who graduate on time--that is, within four years--do so because they know what they need to take early on, and they consistently average 15 credits per quarter. If they fall below that average, they make it up, either in subsequent quarters or in summer school. Students who do not graduate within four years cite many reasons for their slower progress, but very few of them blame the availability of required courses for their failure to complete degrees in four years.

Forty-nine percent of the JSWS students who completed the study graduated in four academic years. Fifty-one percent of our participants needed more time. Seven percent said that they would graduate after summer quarter, 1993. Thirty-four percent of the study participants said that they expected to graduate in the 1993-94 academic year--16 percent at the end of fall quarter; four percent at the end of winter quarter; and 14 percent at the end of spring quarter, 1994. Only four students (5 percent) expected to take more than one extra academic year to graduate. (Two students had already graduated winter quarter.)

JSWS participants report a higher four-year graduation rate than that reported in *The Winter, 1992, Survey of University of Washington Seniors*. In that document, Gerald Gillmore, director of UW's Educational Assessment Office, and a fine person as well, reports that "nearly 65 percent of the respondents expected...they would take more than four years to graduate (p. 35)." This difference may be caused by differences in the sample. The Educational Assessment Office surveyed 530 students during winter quarter of their senior year. None of them were transfer students. We asked students about graduation during spring interviews, and 41 percent of the participants were transfer students. Often transfer students have financial obligations that make extending their educations past four years especially burdensome, and this may explain why our four-year graduation rate was higher than that reported by Gillmore.

When asked why they had been able to finish their undergraduate degrees in four years, students who were graduating tended to credit their own efforts for their success, and they also tended to give more than one reason. One fifth of those who finished in four years said that they figured out what they needed to do early on, and then they carefully went about doing it, some checking often with advisors. Students who finished in four years tended to take 15 credits or to overload credits every quarter (20 percent), to never drop a class (14 percent), or to take summer courses to maintain the credit load needed to graduate (10 percent). Nearly one-fourth of those who graduated on schedule attributed completion to credits from other than traditional UW courses, such as AP and JSWS credits.

Three responses from graduating seniors follow:

- I never dropped a class. And when I started...I knew that I wanted a degree in accounting. I sat down with an advisor to map out my first two years, assuming that I was going on to the UW [from Gray's Harbor Community College] to take my degree in that field. Knowing for sure what I wanted to do has saved time.
- I took a full course load every quarter, averaging at least 15 credits. I planned ahead, and I didn't drop any classes.
- The [Junior/Senior Writing] Study credits helped me, so I could take a couple of lighter quarters, but finishing in four years was kind of a goal. I never expected to take longer than that.

Students not graduating on time tended to focus on causes outside the UW. Twenty percent of those who did not graduate in four years took time off at some point in their educations. Their reasons for these breaks varied, but a sampling of their reasons follows:

- ...I had to take a quarter off because my dad became ill and died.
- I had back surgery in fall, 1991, and had to drop classes. Last quarter I had the opportunity to travel to Chile for gymnastics, and I had to drop out another quarter.
- It's taken me longer to graduate, because I took last spring quarter off to travel in Europe.

Students also took longer to graduate because they needed to work to support themselves and/or to continue paying for college (16 percent). Others cited changing majors (10 percent), graduating with more than one major (eight percent), and participating in sports (eight percent) as reasons for delaying their graduations.

Only two of our students--three percent--stated that the they took more than four years to graduate because the courses that they needed were not available.

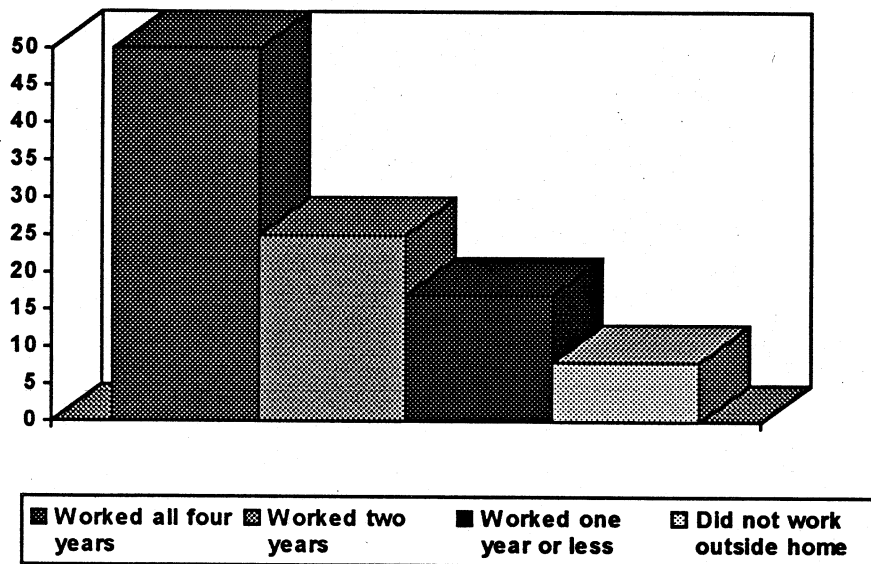
EMPLOYMENT PATTERNS

Figure 2 shows the employment patterns of JSWS participants. Half of them worked all the years they were in college. Another fourth worked at least two years, usually the junior and senior years. Only 8 percent did not work at all outside the home while they were in college, and one of those students was retired. Three of the students who did not work had children at home; one of them reacted to our question with this comment: "But I'm a mom! I work hard at home, dammit!"

The number of hours students worked varied from five to more than 45. Forty-two percent of the JSWS participants who worked outside the home spent up to 15 hours per week on the job. Thirty-eight percent of the working students spent more than 20 hours at work each week. Most students worked between 15 and 20 hours per week.

More than a third of our working participants stated that they worked because they needed to pay all college and living expenses. Close to another third (31 percent) said that they were working to provide themselves with spending money. Nearly a fourth of our working students said that they worked to help with college and living costs, paying living expenses, for example, after parents provided money for tuition, rent, and books. We should note, however, that it is often hard to distinguish between the second and third reasons mentioned above. Fewer than eight percent worked in order to gain experience for future employment.

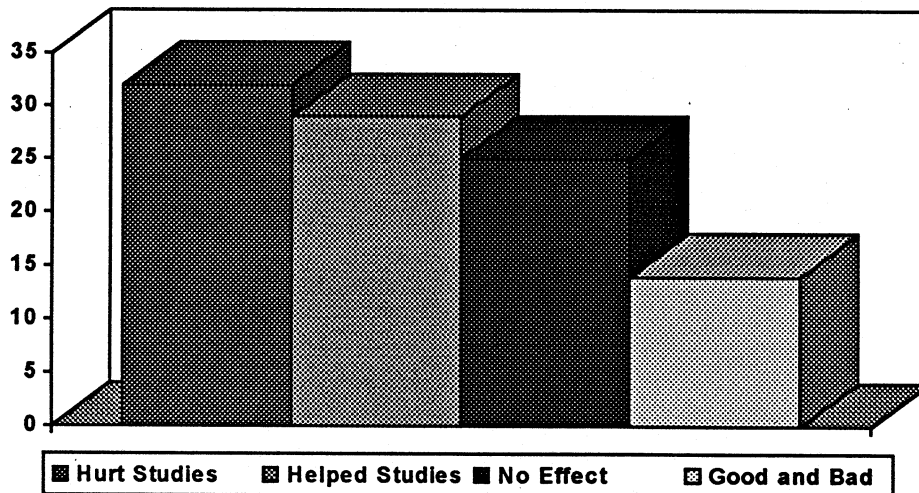
Figure 2: Employment Patterns



We asked students to tell us what effect, if any, their jobs had on their academic work at the UW. As Figure 3 shows, more than half of the students who worked felt good about the relationship between their jobs and their schoolwork, with 25 percent saying that their jobs had no effect on their studies, and 29 percent saying their studies had been positively affected by their working. Half of those who noted positive results said that working had helped them learn to budget time, to keep organized. The other half mentioned that their jobs had helped them make sense of their academic coursework; "I know a lot of things other students [in my classes] don't know," one participant said, "because I am out there."

About one-third of the JSWS participants who worked stated that the time-demands of their jobs had hurt their academic performances. Another 14 percent agreed that their jobs had taken time away from their studies, but they also listed some benefits from working, including increased time management skills and confidence. Several students said that although their work had taken time away from their studies, working had no appreciable effect on their grades.

Figure 3: Students' Perceptions of the Effect of Working on Studies



STUDY PROBLEMS

From the start, we encountered problems in the JSWS that we did not confront in the FSWS. The main problem was retention. More than 150 students expressed interest in the study, but by the end of the study's second year, we only had 76 participants. Because we did not have attrition problems during the FSWS, we believe the JSWS rate is likely caused by the incentive we offered students for their participation--three general studies credits per year. Some students asked to participate for "free," and so many other students asked to have credits distributed in differing patterns across one year or two, that we suspect that three ungraded credits outside students' majors does few juniors much good. This may be especially true for transfer students, although we are not sure why.

Another less significant cause of our high attrition rate was an error in sampling. We inadvertently invited some students who were already juniors along with those just beginning their junior year. Two of those students graduated at the end of spring quarter, 1992, and another graduated at the end of fall quarter, 1992. In addition, several students graduated early by taking 18 credits or more or by taking summer courses.

We also had unusual problems tracking students and, therefore, getting them to sign up for interviews and to bring in their papers, topics, course syllabi, and questionnaires. One reason why tracking was so difficult was because students were moving around--some to study abroad, some to work part-time, others just changing residences. We are not sure why it seemed harder to get JSWS participants to bring in their materials than it was to get materials from FSWS participants, unless the upperclassmen are merely busier. Whatever the cause, this problem considerably extended the time we needed to interview the participants and to maintain their portfolios.

In addition, as juniors and seniors, students (especially business students) had many group writing projects, and we had trouble constructing an interview form that could accurately report various roles students had in such projects. For example, in some cases the student being interviewed turned in a group paper with his name on it and received a grade for it, but the student, himself, had written none of the paper; in other cases, the student being interviewed had written all of the paper alone, even though the paper was assigned to a group of students. In still other cases, the student had drafted the paper but her draft had been altered beyond recognition by others in the group before it was turned in and graded. In yet another variation, the student had written two paragraphs of a three page paper. The problem for us was how to categorize such writing demands. A particular course might indeed have required a paper, so we would record that requirement in our database, but the student may not have written that paper or much of it.

A final problem concerned the 25 JSWS students who had also participated in the FSWS. By the end of the JSWS, these students had received one full quarter's credit for their participation in the two studies; therefore, their course-taking patterns and their writing experience are likely to differ from that of the general UW student population.

WRITING IN THE JUNIOR AND SENIOR YEARS

This section presents interview results from the 76 students who completed the JSWS. It includes descriptions of the writing students were assigned and of the projects they were required to complete. We include discussion of projects because often they were connected to writing activities.

PAPERS

In discussing student writing, we distinguish between papers and other kinds of writing for several reasons. First, while writing essay questions for exams (whether take-home exams or those given in class) and doing short pieces of writing in lecture or in sections can enhance students' learning and understanding, only papers require students to think about course content over time. Whether students use it or not, time offers the opportunity for careful analysis of texts, for integration of course material, and for student inquiry into issues and perspectives raised in class. Time also allows students the opportunity to revise their writing, and revision that requires the critical reading of one's own work, as well as the critical judgment of one's peers, helps students improve their writing skills. Neither essay questions on exams nor short pieces of writing offers time. Both can improve students' understanding of course material, but neither stands to make much impact on students' writing ability. Only papers can do that.

Second, often only papers provide students with a response to their thinking. Essay exams and short pieces of writing are rarely returned with comments, and sometimes they are not returned at all. When they are returned with comments, the comments usually speak only to the students' understanding of course material. Finally, students perceive essay exams and short pieces of writing as mastery-oriented, whether they are or not, and, therefore, assume that their primary purpose in them is either to repeat information and arguments or to narrowly apply information and arguments that they heard in lecture or read in their texts. This means that only papers--in fact, only papers requiring argument or analysis--give students inquiry-oriented writing opportunities.

For these reasons, we discuss papers and shorter writing assignments separately.

Students in the JSWS wrote 1,053 papers during their junior and senior years, about 13.8 per student. This is one more paper than students wrote during their freshman and sophomore years (12.8). In addition, juniors and seniors wrote papers for more courses than freshmen and sophomores did. During their first two years at the UW, students wrote in about 5 courses, or 28 percent of the courses they could be expected to take. During their majors, students wrote in approximately 8 classes, or 43 percent of the total number of courses they could be expected to take. Most of the courses assigning papers, required only one paper (59 percent). A third of the courses requiring papers demanded two or three.

While one might argue that six or seven papers per academic year is inadequate, it is good that students wrote those papers in more courses than they wrote in as freshman and sophomores. Writing papers helps

students understand and apply course content, and, therefore, they learn more about the content of the course when they write than when they do not write. Furthermore, there is evidence of a link between paper writing and students' general engagement with a course. A recent study at Harvard, which surveyed 365 students about their writing experience at that institution, found that "the relationship between the amount of writing for a course and students' level of engagement...is stronger than any relationship we found between student engagement and any other course characteristic" ("The Harvard Assessment Seminars, Second Report," Richard J. Light, 1992). If we can assume a relationship between engagement in a course and learning, the Harvard study suggests that the more courses a student takes that assign papers, the more she will learn.

Writing papers also helps students improve their writing by giving them the opportunity to practice their skills and to get feedback on their papers. Students who write in many courses receive comments from many professors or TAs. A wide range of perspectives on their written work can help students identify their writing strengths and weaknesses.

Therefore, this increase in the number of courses requiring papers between the freshman/sophomore years (28 percent) and the junior/senior years (43 percent) is heartening whether or not we agree that writing papers in fewer than half the courses students take as majors is acceptable.

Students probably wrote papers in more courses as they moved through their majors, because W-credits are concentrated in the 300 and 400 levels. In the 1992-93 academic year, for example, 88 percent of the W-courses and two-thirds of all W-course sections were offered at the 300 and 400-levels. Indeed, without writing links attached to content courses (English 197, 198, and 199), English 200-level and Comparative Literature 200-level W-sections, only 39 of the 490 sections of W-courses--eight percent--would be offered at the 100- and 200-levels.

While students were required to write more papers in their junior/senior courses than in their freshman/sophomore courses, often the only actual writing instruction they received came from a general freshman composition or a linked writing course. But often professors assumed that once students are juniors, they should know how to write. One of our study participants put it this way:

They assume the students go into their classes already knowing how to write. They spend very little time, very little focus, if any at all, demonstrating to students that this is what they want....They need to spend some time within the class teaching us how to write the paper--putting us in the right direction, at least.

TYPES OF PAPERS

As Figure 4 shows, 43 percent (394) of the papers students wrote were arguments about issues, events, and ideas. Thirty-eight percent (462) were informative papers. Fourteen percent (146) were literary arguments, and five percent (51) were evocative papers. Some people have suggested that literary arguments ought not be distinguished from other kinds of arguments. We have divided them in this way because, according to Freshman/Sophomore Writing Study data, the majority of the papers high school students write are literary arguments almost

exclusively--about 46 percent, if we include response papers. We separate literary from other kinds of argument, because we want to be able to distinguish between the kinds of arguments students have had a good deal of practice writing and those they have not. However, if we combine literary arguments with other kinds of arguments, 57 percent of the papers UW juniors and seniors wrote were argumentative essays of one kind or another.

Figure 4: Types of Papers Written
Junior/ Senior Years

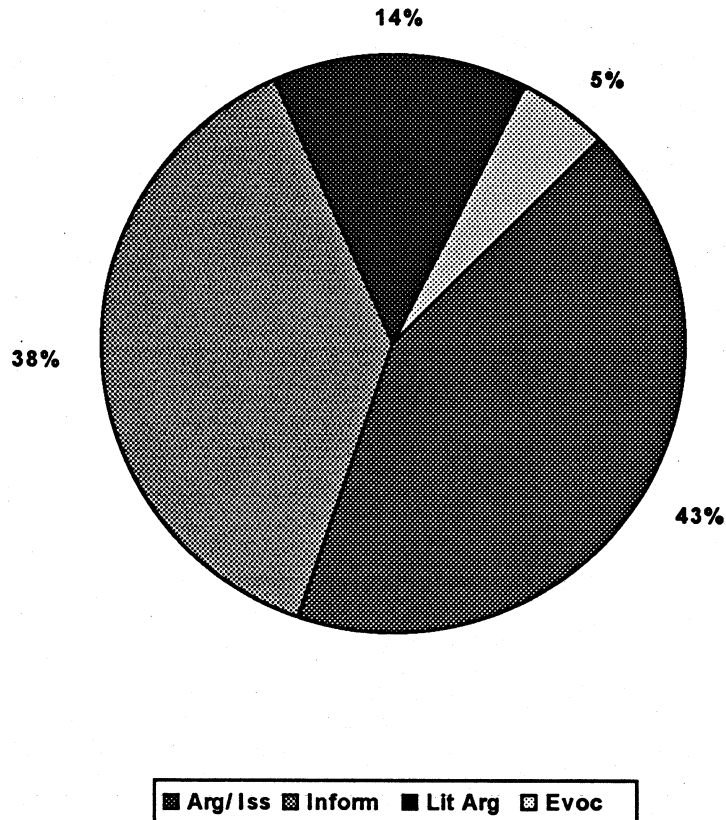


Figure 5 compares the kinds of papers students wrote during their freshman and sophomore years with the kinds students wrote during their junior and senior years. As the figure shows, students wrote about the same number of arguments: 46 percent in the freshman and sophomore years and 43 percent in the junior and senior years. The number of informative papers students wrote during their junior and senior years increased, from 27 percent of the total during their first two years to 38 percent during their last two years. The percentage of literary arguments students wrote decreased from 24 percent during the first two years to 14 percent during the junior and senior years. The number of evocative papers remained the about the same: 3 percent during the freshman/sophomore years and 5 percent during the junior/senior years.

To get a more complete picture of students' paper writing over time, we have added the types of papers students wrote in high school to those they wrote at the UW on Figure 6. As Figure 6 shows, students at the UW, no matter what year they were in, were expected to write considerably more arguments about issues, events, and ideas than high school students were expected to write. They were also expected to write considerably fewer literary arguments.

Figure 6 also shows an increase in the number of informative papers students were assigned between the freshman/sophomore and junior/senior years. This increase in informative papers concerns us. Decisions about the kinds of papers to assign obviously rest with the professors in the disciplines, who, especially at the junior/senior level, are bringing new participants into their own fields of study. Professors purposes, therefore, in assigning papers will vary depending on the demands and practices of their disciplines, and we believe that those assigning informative papers likely have good reasons for doing so.

**Figure 5: Types of Papers Written
Fresh/ Soph and Jr/ Sr Years**

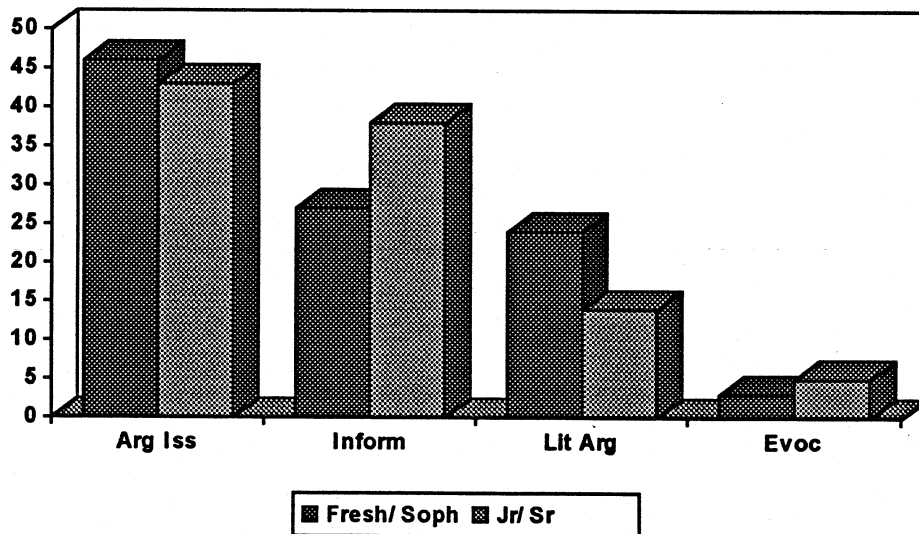
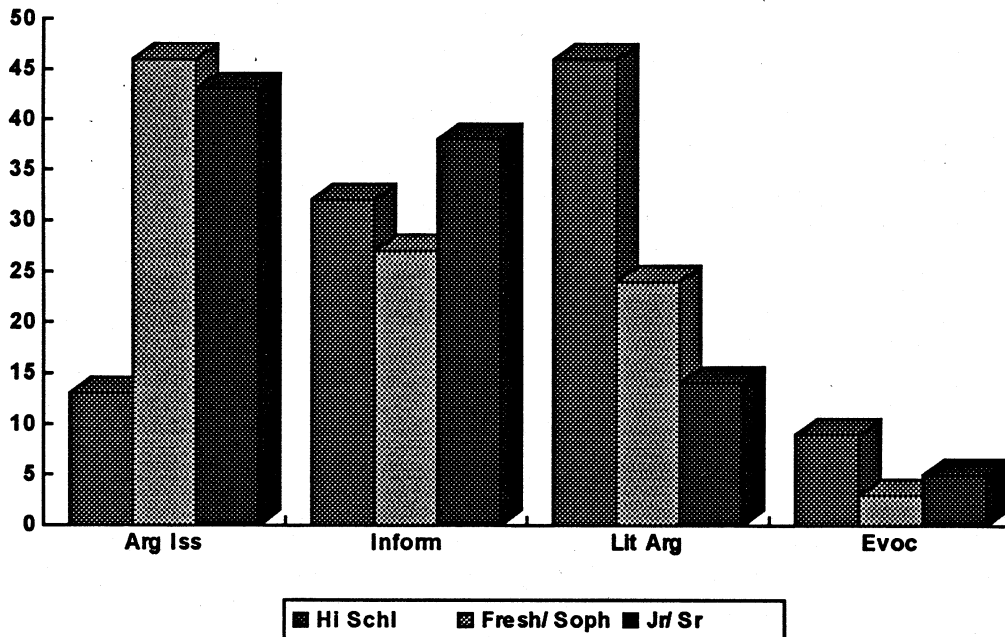


Figure 6: Types of Papers Written
 HISchl, Fresh/ Soph, and Jr/ Sr Years



However, while students can learn something they did not know before by writing informative papers, such papers do not give students the opportunity to think critically about what they are learning--to identify alternative viewpoints on a subject and to look carefully at each alternative's evidence and reasoning in order to arrive at their own conclusions. Also, informative papers do not give students the chance to generate alternative viewpoints of their own.

The following selection of two history paper topics--one informative and one argumentative--and two science paper topics--again, one informative and one argumentative, illustrate the difference in what students can learn from writing these two types of assignments:

- *HISTORY 220*: The teacher assigned us to do a paper on any subject in Eastern Europe--about a leader, a country, the communist system. It was a very broad selection of topics. I eventually chose to do my paper on Vaclav Havel. I just chose to do it about his fight against the system.
- *HISTORY 201*: The second paper was on (authors) Crane, Lincoln, and a packet. We had to discuss the limitations of the sources, what each source could tell us. I basically drew on the fact that the historical evidence was viewed with the European biases, and, as a result, they treated the others as inferior human beings.
- *PHYSICS 117*: We did a lab and took down the data....We gave the purpose and then a procedure and then data and then analysis of the data and a conclusion. Usually the biggest thing was whether you understood what you were doing. Most of the time, you didn't get the

right answers, but you needed to know what went wrong and what to do to make it more accurate.

- **BIOLOGY 203:** We had a choice of writing on four of the labs we had done. What you were supposed to do was research more in depth an aspect of the lab and write and analyze that. One of the labs we had done was a computerized fisheries count of how many fish were coming out of this hatchery and stream. [For our paper] we analyzed the program in Washington and what is wrong with it....The program was based on a couple of variables and I researched how it would change if we changed the variables to more of what the fish encountered.

While it is clear that the first history and science topics, though mostly informative, have built in some analysis, the second history and science topics' main purposes are to get students to look critically at information and to argue choices made on the basis of that critical analysis. Students writing papers in these two courses then, were asked to go a step further in their own thinking than those writing papers in the first history and the science courses. Furthermore, the topics for History 220 and Physics 117, although more directed than we might expect high school history and science assignments to be, are more like informative papers students often wrote for high school courses than are those papers assigned in History 201 and Biology 203. Therefore, students will not learn as much from writing these papers as they will from writing the less familiar assignments in History 201 and Biology 203. Table 2, which follows, illustrates this point.

PAPER TOPICS

Table 2 provides three lists of paper topics students reported during interviews. One of the lists is from high school, one from the freshman/sophomore years, and one from the junior/senior years for arguments about issues, events, and ideas in three disciplines: history, political science, and English. It was difficult finding arguments about issues, events, and ideas in upper-level English courses, because most of the topics assigned at that level are literary arguments.

While Table 2 only provides the briefest sampling of topics, it does reveal some differences between high school and college writing requirements. First, the UW paper topics in all three groups and for all four years are narrower in scope than the high school topics. The UW topics require students to focus on a specific question or task, rather than on a broad topic, even when students are given some choice of topics.

Second, the UW topics for all four years are rooted in texts. At UW, students are asked to use sources outside themselves to analyze and argue about complex issues and events. In contrast, the high school topics seem to invite students to look at complex issues and events from their own personal experience and feelings, rather than from sources outside themselves.

Third, the high school topics are interchangeable. They are similar, whether they are assigned in history, government, or English. They do not seem to carry any disciplinary assumptions in them. All the UW assignments in history and government, in contrast, are embedded in disciplinary expectations. A student cannot, for example, apply

TABLE 2: SAMPLE TOPICS FOR ARGUMENTS ABOUT ISSUES, EVENTS OR IDEAS
HIGH SCHOOL, FRESHMAN/SOPHOMORE, AND JUNIOR/SENIOR YEARS

DISCIPLINE	HIGH SCHOOL TOPICS	FRESH/SOPH TOPICS	JUNIOR/SENIOR TOPICS
HISTORY	<p>1. Write about why something was important in history.</p> <p>2. How do you think the Civil Rights Movement changed the American Government?</p>	<p>1. Examine how Roebuck (author of a text) evaluated the attempts of the Athenian Government to create political stability; did Roebuck see democracy as a stabilizing force?</p> <p>2. Was it the people or their environment that caused the destruction of Thucidides' society?</p>	<p>1. Research and write a paper about Britain's motives in Palestine.</p> <p>2. We picked our own topics [from a list the prof gave us]. I picked the impact of music and motion pictures on the morale of Americans during World War II.*</p>
GOVT/POLI SCI	<p>1. Write about why we thought the Vietnam War was necessary or not.</p> <p>2. Read a magazine article and write our reaction to it.</p>	<p>1. Compare and contrast the views of the writer of an article with Marx's views, as expressed in one of his essays. Argue for a particular interpretation.</p> <p>2. Critique an article.</p>	<p>1. Apply the theories and models of development we've studied to a case(country) of your choice.</p> <p>2. Argue whether the Vietnam War could have ended differently if U S policy changed</p>
ENGLISH	<p>1. Write about sexist images in advertising.</p> <p>2. Write an argument for or against the legalization of marijuana.</p>	<p>1. Describe a Gary Larson cartoon and argue what cultural knowledge you'd need to understand it.</p> <p>2. Write a paper in which you explain how the ad uses language and pictures to make you buy the product.</p>	<p>1. I compared media coverage on Magic Johnson and Rock Hudson regarding AIDS.*</p> <p>2. I argued that the U District should implement a voucher system for handouts for the homeless at their next meeting.*</p> <p>*Students'choice</p>

development models to a case if she does not understand how models work in the discipline and what the relationship between a model and a case might look like. Similarly, a student could not discuss the impact of movies on public morale unless she had some idea what historians might accept as evidence of morale being high and low. A student could, however, say why he thought a historical event was significant or react to a magazine article with no knowledge of how members of those disciplinary communities might make those arguments themselves. So, while the UW assignments require that students understand something of how disciplines shape writing demands, the high school assignments do not.

Table 2 also shows a similar but smaller gap between arguments about issues, events, and ideas assigned in English courses and those assigned in the other disciplines. Paper topics assigned in courses other than English are embedded in the contexts of those particular disciplines. For example, both topics in the Fresh/Soph Topics column for history ask students to look critically at historical sources. Students need to know something about how to read and evaluate historical accounts in order to complete the assignments successfully.

Students completing assignments under Fresh/Soph English, on the other hand, are not required to use the lens of any discipline to examine the "source" before them. Also, their source of evidence is their own reasoning or thinking; while evidence for the other arguments comes from research, assigned reading, or lecture. The same can be said for Topic 2 under English arguments in the Junior/Senior Topics heading. Topic 1 under that heading is different, because it will obviously require that students use the media coverage--sources outside themselves--as evidence for assertions about similarities or differences between coverage for Johnson and coverage for Hudson. In this way, Topic 1 is, in a way, embedded in English as a discipline. Had we included literary arguments assigned in English courses, however, it would be clear that literary arguments are embedded in English as a discipline, in the same way that the history and government/political science topics are embedded in their own disciplines.

This distinction is only important insofar as students think of writing courses taken in the English Department as applicable to requirements of writing assignments in other disciplines. If students approach the history topics, for example, with no lens but themselves in the same way they approach the cartoon assignment, they will not use evidence in the way a historian would. Therefore, it is important that students be taught how to write in the disciplines and to be told that writing demands and practices vary from one discipline to the next.

Also, it is important that instruction in writing in the disciplines begins early to avoid the gaps that we have noted. Three students' comments illustrate this:

- ...I think the fact that students don't do much writing in high school makes some faculty members not ask much of students' writing at first. But I think it should start sooner....I just think that in those beginning freshman and sophomore years there ought to be more demand for writing, because skill in writing comes through application.

- ...[I wish] that I had gotten started earlier in my major in writing--some kind of introductory science writing. That would have helped. Right now, there's absolutely none.
- I think the new senior courses are going to be good in that respect--very interactive. I just wish there could be more of that earlier.

As expected the range and focus of paper topics varies dramatically from one class to the next and from one discipline to the next. We have included the following short list of sample topics to illustrate that variation:

- *BUSINESS (OE) 200*: We had to treat the paper like we were explaining what was going on in the graphs we had drawn up to someone who had never seen a graph before. We had to explain what the different numbers and terms meant. Also, we had to summarize what the numbers meant. I used gymnastic scores to show how closely related the scores are, to find the standard deviation.
- *PSYCHOLOGY 306*: We had to go observe four children. One had to be crawling; one had to be an unsteady walker; one had to be a competent walker; and one more from any of those groups. You had to observe them and their interaction with caretakers. The first part [of the paper] was just recorded information on how they interacted with the caretaker. In the second part, we were just supposed to discuss the patterns of the different kids--how they differed.
- *HISTORY 201*: The second paper was on [authors] Crane, Lincoln, and a packet. We had to discuss the limitations of the sources, what each source could tell us. I basically drew on the fact that the historical evidence was viewed with the European biases, and as a result, they treated the others as inferior beings.
- *SOCIOLOGY 356*: The topic for all three papers was the same: critique the view presented in each of the three books on democratic stability. We had one or two pages in which to summarize the argument of a book, then three to five pages to critique it, agreeing or disagreeing and arguing why. If you agreed, you were supposed to take the argument further.
- *BIOLOGY 203*: We had a choice of writing on four of the labs we had done. What you were supposed to do was research more in depth an aspect of the lab and write and analyze on that. One of the labs we had done was a computerized fisheries count of how many fish were coming out of this hatchery and stream. [For our paper] we analyzed the program in Washington and what is wrong with it. We had a group of four and we all picked a certain aspect of it....I covered changing the program, how you could better fit the program to real life. The program was based on a couple of variables, and I researched how it would change if we changed the variables to more of what fish encountered.
- *ENGLISH 346*: We had to read Sophocles' three tragedies, and I tried to apply the structuralist view in analyzing them, especially using Barthe, his idea of the simulacrum.

SHORT PIECES OF WRITING AND ESSAY EXAMS

Many professors make short writing assignments as a way to enhance student learning of course material and concepts. Often these assignments ask students to apply information to a case or a situation. These short pieces of writing are often graded with checks-plus, check, or check-minus; sometimes students are merely given credit for having done them.

Because of their length and because, in most cases, they play such a minor role in students' final course grades, most students in the study viewed these short pieces as unimportant, devoting little time or thought to them.

Faculty members who assign short pieces of writing with the intention of getting students thinking about course material may want to put some teeth into their short assignments or to think about using longer, more carefully evaluated writing assignments in their place.

What follows is a list of student descriptions of short writing assignments:

- *GEOGRAPHY 205*: They were basically conceptual questions that called for--at the most--two paragraphs, but there was no style. It was pretty dry. We got the questions once a week on a ditto, and there was a mixture of essay and short answer. It was either credit or no credit, no in between.
- *ECONOMICS 300*: It was basically just analyzing a current periodical [story] for its correct interpretation of economic principles. They were graded for the correctness of your interpretation of their analysis.
- *SOCIOLOGY 241*: Basically, we were supposed to do a discussion paper about a relationship we were having, and I chose to do it on me and my girlfriend. We had to integrate our reading material into our discussion, so that we could incorporate what we had read into a daily life situation, so we would know how to apply sociology. It was graded, but I think everybody got the 10 points. We basically just had to do one of these papers for one of our three sections.
- *ENGLISH 326*: We did in-class essays is how we were graded. Mine were about two pages handwritten. He would give us questions before our readings, and so we would read with these questions in mind. But the in-class essays were random; we never knew when they would be. But we could choose the question we could write on. He would just see if they were persuasive and if there was a good argument for our grades....We did get a point grade and comments on these; our class grades were based on them.
- *POLITICAL SCIENCE 201*: We read an essay for quiz section and had to do a little bit of summarization and tell whether we agreed or not. We had to do this twice during the term during the times when we were assigned to debate the issues at hand. One of mine was on civil liberties. I can't remember the other one. We also had to write short answers on mid-term and final exams.

Essay exam questions were also commonly assigned in junior and senior-level courses. Sometimes, essay questions required that students simply repeat information from assigned reading or lectures, but more often, they asked students to use material from reading or lectures to make an argument. Often, students were asked to apply course concepts to cases or situations. As far as we could tell, there was little difference between questions asked on in-class exams and those asked on take-home exams; however, students had the chance to draft and revise take-home exam questions, which may have affected the quality of their writing.

While it is unlikely that TAs and professors grading exams can make such fine distinctions, students perceived both in-class essay exams and take-home exams as being graded on content, with little or no attention paid to the quality of the writing. Students believed that the sole purpose for most of these exams was to test their knowledge and understanding of the course material, rather than their ability to write. Furthermore, they were rarely given instruction in how to write good answers, unless the short pieces of writing assigned in class were designed to serve that purpose, as they were to some extent in Sociology 271.

The following are some descriptions of students' essay exam questions:

- *INTERNATIONAL STUDIES 210*: The take home exam was on the status of the Koran in early Islam. It was an opinion essay. We were to take the facts that are historically known and kind of give our opinion on what might have actually been the case of the Koran during that time. It is controversial. There is no set general thinking about what actually was the status. Then we had an identification test that was open book, in which we had to pick 20 terms, names, or concepts and give a brief description or definition of them with their significance.
- *BUSINESS 440*: We had a final essay test. We had a choice of writing on two of four questions. He didn't just drill what we had read in the book. We were dealing with what was vital in the industry today, so some of it was that which was acquired from lecture. You had to go to class to do well on this test. For instance, he would ask us to compare and contrast power and authority and the characteristics of each in a management position or within an organizational structure. There was no "this is right or wrong," although I didn't get my final back, so I don't know for sure.
- *HISTORY 204*: First test was what were the causes of World War I, who were the players, how did each society affect the others' role. Drawing everything from readings and lectures, I wrote 4-5 pages in a bluebook. You had to pull stuff from the book; it didn't ask for my opinion. The final was two essays, one dealing with how each country dealt with the great depression, and the second was a synopsis of the fall of Europe between 1914 and 1945. One was about seven pages and the other about three and a half, and they were pretty much regurgitation, too.
- *POLITICAL SCIENCE 201*: We had to write one long essay (a page and a half) on the midterm and the final and six other [short answers]. On the midterm, the essay question asked us something about the separation of power between state and federal government--what the constitution said about that. I did one on how the civil rights movement had helped in more rights for minorities, especially

African-Americans. My sense was that we were being asked to use information given in class to make an argument, not just give back the information.

- *POLITICAL SCIENCE 408*: We had two essay exams, where we wrote up to two pages. He would give us a problem and we'd have to explain why we'd work through it in a certain way, or argue why we'd take a certain approach to the solution. They were graded on both the format and the spelling and grammar, as well as on the knowledge of the material.

PROJECTS

During the interviews, we asked students if they had been required to complete projects other than writing assignments in any of their classes. If they answered yes, we asked them to describe the projects and to list the courses in which projects were required. When we analyzed these data, we counted as projects assignments other than papers that could not be construed as "homework" and that were not part of a larger assignment.

For instance, we eliminated what appeared to be regular homework assignments, such as computer programs for a programming class or series of equations for math (e.g., "We basically answered questions the professor gave us using computer programs; we were learning to use EXCEL."). We also eliminated graphs students created as part of a paper or lab report they were writing (e.g., "The papers for this course required a lot of graphic presentations done on computers.") and speeches that were regular assignments in speech communications courses.

While many of the projects assigned included some kind of writing assignment--outlines, notes, full papers--not all of them did. When they did require writing, that information was included in data gathered on writing for particular courses.

Our results indicated that many courses included project work in their requirements, and more often than not, the project was the result of team, rather than individual, effort.

Projects' purposes varied considerably. The following student descriptions of presentations or talks illustrate that variety.

- *HRMOB (BUSINESS) 410*: In HRMOB 410, our goal was to develop an effective staffing plan for either a real or imagined company that is legally defensible under the new laws regarding hiring selection procedures under Title 7 of the civil rights act. It was a group project, and we chose a real company, and we did a recruitment plan as well as disciplinary procedures. We did a paper as well and presented it to the class as if we were presenting it to the board of the company. This took 30 minutes.
- *BUSINESS COMMUNICATIONS 301*: We did a group feasibility project on a business problem, then made a presentation to the class. My group studied whether it would be feasible to expand a particular U.S. company into the international market. We did original research, investigating the financial resources of the company, talked to business leaders from the culture where expansion was being considered, and talked to people in the company itself. The group presentation we prepared lasted one hour....I'm finding group

projects in virtually all my business classes. It is sometimes hard to manage group things, but it is valuable; I know that is how the real world will be.

- *BIOLOGY 203*: In biology, we had presentations that correlated with our papers. It was actually more personable than your paper, which was more scientific. You had to do it like a lecture format...an informative presentation. It was only five minutes long and a question session.
- *FRENCH 103*: ...A group of us had to talk about a French-speaking country. My group chose Martinique, and I drew the map for our presentation, using my computer. We discussed the history, culture, economic conditions, the government...in French.
- *ASTRONOMY 150*: We did brief presentations on...space travel to Mars. We pretended that five students constituted the US Senate. We presented to them and had to respond to their questions....My group wanted to travel to Mars to get information, a basis for deciding how we could build a space station there. My part was to explain where we would choose to land.
- *PSYCHOLOGY 232*: We had a 10-minute presentation on rat performances in mazes. It was a group project.
- *MECHANICAL ENGINEERING 323*: We were given a pot of steam, and we had to create electricity. Everybody else got theirs going, but ours failed. This project was done in groups of four or five. Each group had to research its design....Once a design had been researched, we could either write a theoretical paper or build a working model. Our professor was a specialist in theoretical analysis, so we thought doing a paper would be too hard. So we built a model and drew the whole apparatus on the big board in front of the room. We also used an overhead to explain why we chose our particular design. Our design worked fine in test runs, but we lubricated it just before our presentation, and then it jammed. That's why it didn't perform and we lost 30 percent of our grade.
- *ENGINEERING 220*: We did one oral presentation surrounding a design analysis of snowshoes. We were given initial parameters for the snow shoe we were supposed to support, and it was supposed to use a certain material and we had to prove that it could sustain certain elements, like the weight of a person, the weather, etc. It wasn't more than 10 minutes. There was no writing for this; it was just for extra credit.
- *ANTHROPOLOGY 403*: We had to prepare one of the day's readings and present it to the class. It did not require outside reading. We were just supposed to summarize the reading. The purpose was so that people would be able to speak in class....We were required to do this, but we weren't graded on it.

In addition to presentations and talks, students were required to give performances--skits, acting our scenes from plays, dances, and so on. Nearly all of these performances were done in groups. The following student descriptions illustrate this type of project:

- *ENGLISH 315*: In this Shakespeare course, we had the choice of doing a skit or taking a final. It wasn't very hard to decide. The skit

was a 15-minute scene out of a play we were reading or another Shakespeare play. You memorized the lines, and had costumes and props....We did a scene from *A Midsummer Night's Dream*.

- *DANCE 311*: Dance performance. We practiced a combination and at the end of the quarter, all the classes get together and show each other what they have learned.
- *HRMOB (BUSINESS) 400*: In HRMOB 400, we had to mime in front of the class. This...was the basis for our midterm grade. We had to mime a human resource theory, in groups of at least two but not more than four. We had to dress as mimes, wear face makeup, etc. My group's subject was the process of group dynamics: there has to be leadership for a group to survive; you have to agree on what the group norms are; you have to have a way of resolving conflict; you have to have a way of dividing up tasks.

Some of the student projects required students to create a visual representation of something--a drawing, map, collage, or diagram. Others were oral exams or oral papers. Unlike most of the other types of projects, oral exams and papers were delivered only to the course instructor. Sample descriptions of these two project types follow:

- *COMPARATIVE LITERATURE 250*: You wrote a five-paragraph essay and then you presented it to the teacher. You could read off the paper or use notes. I did two presentations, each on two books.
- *ELECTRICAL ENGINEERING 310*: We had an oral exam in front of the prof where we had to make an electrical circuit.
- *ENGLISH 311*: We had to do something that dealt with the medieval period or with Chaucer himself. I did a collage with captions. The collage is made of pictures relevant to the middle ages and captions of a sentence or more identifying the picture, giving a relevant line from Chaucer, etc.

As these descriptions make clear, there was a wide range of purposes for assigning projects, and these purposes determined how much of the students' effort, time, and thinking were engaged by the project. Some of the projects were rooted in inquiry--requiring students to find information from a range of sources, including the course itself; to use that information to create something, whether an argument or an energy source; to experience and work through group dynamics; to produce a record, whether written, oral, visual, or a combination, of their thinking.

Other projects appeared to be more mastery-oriented, requiring students to demonstrate that they understood an assigned reading, a movement, a course concept. How effective each project was depends entirely on each instructor's purposes in assigning it.

Students' reactions to group projects, when they expressed them, depended as one would predict on how well the group worked together. When, as one student put it, "There was one person in our group who didn't contribute at all, while another one did some work, but not the work that the other three of us did," students were unhappy working in teams. This was especially true if there was no way to grade students individually, no way of punishing the free-riders. Faculty members who regularly require group projects may want to keep this problem in mind.

STUDENTS' PERCEPTIONS OF THEIR WRITING EXPERIENCE

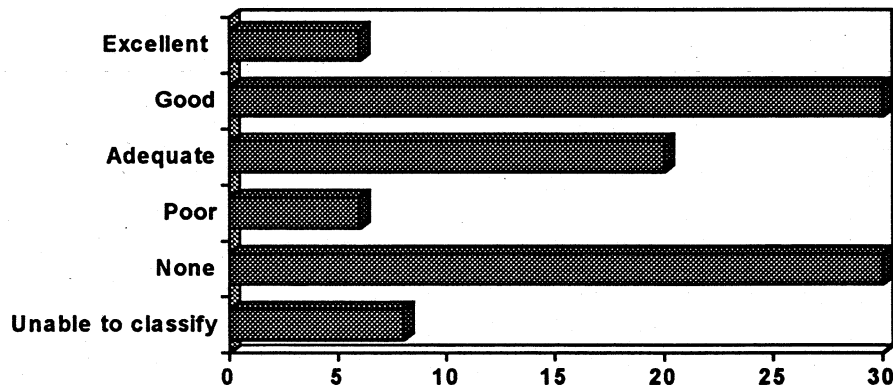
During their final interviews, we asked students some general questions about their writing experience at the UW. We let them answer the questions freely, entering their comments into the database as they spoke. We developed the categories we use in this section of the report by reading through all responses to see which categories emerged. This section introduces students' perceptions by the questions they were responding to.

HOW DO YOU FEEL ABOUT THE WRITING INSTRUCTION YOU RECEIVED IN THE COURSES YOU TOOK THAT REQUIRED PAPERS?

We asked students how they felt about writing instruction provided in every course that assigned papers. Some of their answers were so ambiguous that they could not be classified, and in the final spring interview, some students could not answer the question, because they had not yet written the assigned papers at the time of the interviews. However, our results represent nearly all of the courses in which papers were assigned.

Figure 7 shows students' general evaluation of their writing instruction. Students could not answer the question for nearly a third of the courses assigning papers, or 30 percent, because they had received little or no instruction for writing those papers. Many students were angry at the lack of instruction they received, commenting along the lines of one student who said, "I think the purpose of this class is to find out whether we know how to do things, rather than to teach us." Other students also stated that they had received little or no instruction, but they felt that they had not needed it; students stated they needed no instruction for eight percent of the courses that assigned papers.

Figure 7: Students' Evaluations of Writing Instruction in Courses Requiring Papers, 1991-93

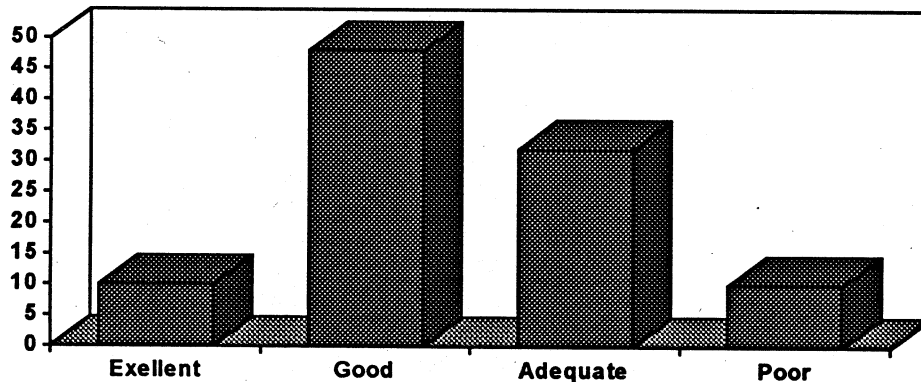


Students felt that in 20 percent of the courses assigning papers the writing instruction was adequate or "okay," and it was considered good in another 30 percent of the courses assigning papers. Students considered six percent of the courses that required papers as providing excellent or "great" instruction. This student's comment is an example: "It was excellent. A+. She wrote out three pages on what she wanted out of the paper. She went over it in class, too, and she went to each group separately to talk to them about their drafts. I went in to talk to her about my part in ours. We could turn in three rough drafts if we wanted to, but one was mandatory."

Instruction for required papers in another six percent of the courses was considered bad or unclear. This student's comment is an example: "It was a little vague, I guess, maybe that was why it was hard to write. He said [he wanted] 'a concise, sharp analysis,' and I think I know what that means, but really, it can mean anything."

If we subtract the courses in which students received little or no instruction from our comments, we can see that the instruction students did receive lines up on a bell curve, as Figure 8 illustrates. Forty-eight percent of the courses were considered to have offered good instruction; 32 percent to have offered adequate instruction; and 10 percent to have provided both poor and excellent instruction.

Figure 8: Students' Assessment of Writing Instruction in Courses Offering Instruction (62 Percent of Total Requiring Papers)



ARE YOU A BETTER WRITER NOW THAN YOU WERE TWO YEARS AGO?

Not surprisingly, 92 percent of the JSWS students said they were better writers now than they were when they were first quarter juniors.

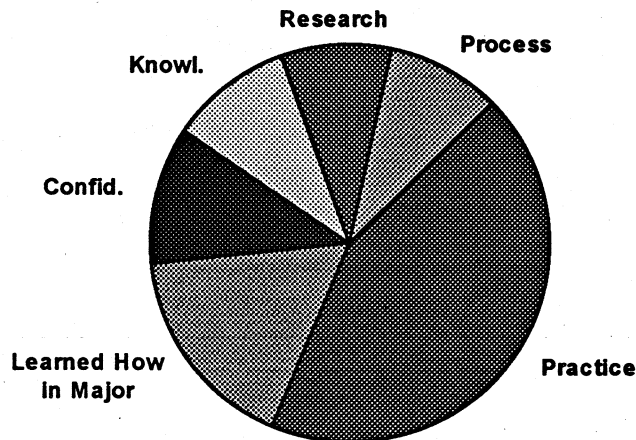
If they said they believed they were better writers now than they were two years before, we asked them why--what had made them better. Their answers varied widely; we had 20 distinct categories for this question. However, the majority of the students gave us one of six responses, displayed on Figure 9. Forty-four percent believed they were better writers because of practice. The following two student's responses serve as examples:

- "In the past two years, I've written a lot of papers, and I think pretty much practice makes perfect. I think the more you write, the more you can figure out what you need to do. There really are no limits to what you can figure out."
- "I think I am better because I write. I don't think you can be a good writer unless you write and write all the time. Maybe every class should have a writing assignment....I don't think a quarter should go by when students don't write. I have a Speech and Hearing Science major friend who is writing her first paper in a year and a half, and she is a good writer, but she is struggling...."

Seventeen percent said that they were better writers, because they had learned to write in their major discipline--something they had not known how to do when they were sophomores. For example, "I didn't know anything about journalism writing, and now I feel like I have an understanding of how to do it. I've also learned to be more critical of writing in terms of recognizing technical problems that an editor might catch. Of course, when I say writing, I mean journalism...."

Eleven percent said they were better writers because they were more confident writers, and 10 percent said that they were better because they had more general knowledge and maturity. Nine percent thought they had improved because they now knew how to do research, and another nine percent felt their improvement was due to changes they had made in their own writing process.

Figure 9: Students' Reasons for Writing Improvement



The six who believed they were not better writers had little in common. Two were psychology majors; one was an economics major; one an accounting major; one a microbiology major, and one an English major. Students in the first five majors mentioned above said that they were not better writers now, because they had not done much writing. One writes, "The style of writing changed when I entered my major, and there was not much opportunity to use the new style."

These reasons are different from those given by FSWS participants at the end of their sophomore year. Twenty percent of those students believed that increased knowledge and maturity had made them better writers, compared with 10 percent of the seniors. Another 20 percent of the sophomores believed that practice had made them better writers, compared with 44 percent of the seniors. Seventeen percent of the sophomores indicated that they had not done enough writing to know if they were better writers than they had been as freshmen, but only seven percent of the seniors indicated that they had not had enough experience to tell if they had improved.

We believe these changes suggest that students' experience of writing in their majors is more positive than their experience of writing during their first two years at the UW, the years commonly categorized as "general education."

WHAT COURSES, IF ANY, TAUGHT YOU THE MOST ABOUT WRITING?

We asked students to tell us which courses, if any, they had taken at the UW taught them the most about writing. In addition to general comments, such as "All my history courses....," the 76 JSWS participants mentioned 54 courses as having contributed to their writing abilities. Six students--or eight percent--said that no course had taught them about writing.

Four courses were mentioned most often. Business Communications 301, required of all business majors, was mentioned 10 times. English 198/GIS 271, writing courses linked with other courses, was noted six times. In fact, all JSWS students who took a writing link mentioned it as the course that taught them the most about writing, whether they were majoring in history or computer science. English 131, a freshman composition course taken by two-thirds of all incoming UW students, was mentioned six times--twice by English majors. Finally, English 271, intermediate expository writing, was listed five times, in all cases but one by English majors.

Only 12 (16 percent) of the JSWS participants mentioned courses outside those in their majors. Three of the 12 were political science majors; two were economics majors; and two were psychology majors. That 84 percent of the study participants named courses in their majors as teaching them the most about writing is important because it implies that at least by their senior years, students' have defined writing in terms of the specific writing demands of certain majors, rather than in generic terms. Moreover, we can infer that, in most cases, students believe that they have received at least some writing instruction in their majors, either from courses in those fields or from writing links attached to those courses.

The following is a complete list of the courses students named. A parenthetical number following a course title indicates the number of students who mentioned the course.

- Accounting 490 and accounting classes in general
- Architecture 150 and 250
- Arts and Sciences Honors courses
- Biology 203 and 476
- Business Communications 301 (10)
- Chinese Literature 380
- Communications 201, 315, 322, 358, 418, 420, and broadcast classes
- Comparative Literature 240
- Engineering 231, 331 (2), 343, and Mechanical Engineering 434
- English 131 (6), 198/GIS 271 (6), 200 (2), 202, 204, 232, 271 (5), 304, 306, 351, 355, 379 (2), poetry writing, and short story writing (2) courses
- Environmental Studies 206
- History 201 (2), 301, 303, 311, 312, 402, 498, and history courses in general (2)
- HRMOB 400 and 470
- International Studies (SIS) 200 and 202
- Philosophy Ancient and Modern
- Political Science 310, 321 (2), and 346 (2)
- Psychology 209 (2), 231, 232, 418, 450, and honors courses
- Society and Justice 400 and 430
- Speech 220
- Zoology 451

WHAT ARE YOUR STRENGTHS AND WEAKNESSES AS A WRITER?

At the end of our first and last interviews, we asked students to tell us what their strengths and weaknesses as writers were. Student responses varied considerably, but we categorized them as best we could. Table 3 shows beginning and ending responses to both strengths and weaknesses. We should keep in mind as we look at these numbers that only a small percentage of our sample gave us answers we could put in these categories. Indeed, the most frequently mentioned beginning and ending strengths, for example, represent only about 20 percent of our total sample population. Also, since participants usually mentioned more than one strength or weakness, it is impossible to tell from these numbers if they represent 15 or 76 students' responses.

STRENGTHS

Nevertheless, as the table shows, an interesting shift in perceived strengths occurs between the beginning of students' junior year and the end of their senior year. Creativity disappears as a strength. As one student said when we asked him what his strengths as a writer were at the end of his senior year: "Creativity, which I didn't do any of at the UW."

The disappearance of creativity may be caused by two factors. The first is that the student's assessment is correct: creativity is neither demanded nor valued by professors assigning papers in the majors. However, a more likely cause, we believe, is that professors do not make clear to students what constitutes creativity in their particular disciplines. In English, for example, creativity might be related to word choices or perspective. In psychology, creativity might reside in one's research design. Students are likely to think of creativity as

relating only to descriptive writing, and, just as they need to be taught what constitutes evidence in a given discipline, so they need to be taught what constitutes creativity.

Another interesting change in perceived strengths is the addition of conciseness in the ending strengths. Few students mentioned being concise as a strength at the beginning of the junior year, but 15 percent mentioned it at the end of their senior years. It seems clear to us that being concise is a value taught explicitly by both business

TABLE 3: STUDENTS' PERCEPTIONS OF WRITING STRENGTHS AND WEAKNESSES

<u>Beginning Strengths</u>	<u>Ending Strengths</u>	<u>Beginning Weaknesses</u>	<u>Ending Weaknesses</u>
Creativity (20%)	Organization (20%)	Mechanics-- grammar, punctuation, and spelling (16%)	Mechanics-- grammar, punctuation, and spelling (20%)
Organization (19%)	Ability to argue (20%)	Not being concise (13%)	Not being concise (13%)
Ability to argue (17%)	Being concise (15%)	Organization (11%) Procrastination (11%) Connecting ideas to the thesis and to each other (11%)	Vocabulary and word choices (10%)
Vocabulary and word choices (15%)	Clarity --"Will the reader get it." (11%) Vocabulary and word choices (11%) Mechanics-- grammar, punctuation, and spelling (11%)	Sentence structure (9%)	Procrastination (9%)
Mechanics-- grammar, punctuation, and spelling (13%)			Organization (8%)

and technical writing courses to majors; also, it seems clear that conciseness is valued by professors in those majors who assign papers, so that there is a tight fit between writing instruction in courses designed to teach writing in the major and the evaluative criteria of professors teaching in those majors. The value of being concise, then, is taught to business and engineering majors in particular through instruction, feedback, and practice.

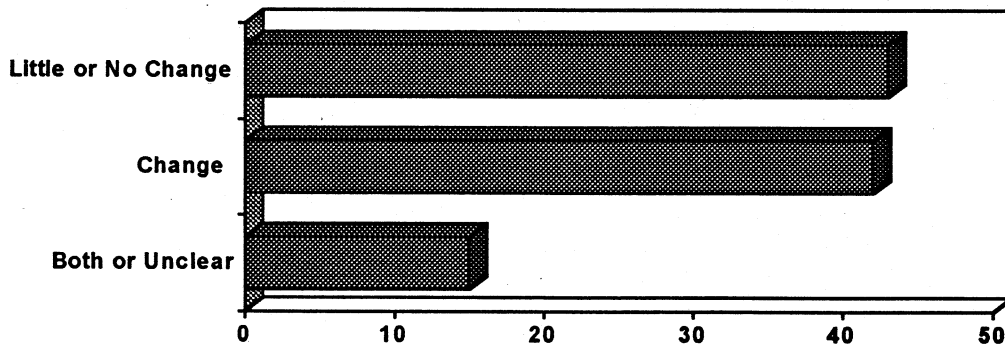
In addition to looking at common categories mentioned, we also checked each of our participants' responses to see how many mentioned the same strengths as beginning juniors and ending seniors and how many mentioned different strengths. As Figure 10 shows, the number of students whose perceptions of their own strengths changed and the number whose perceptions remained unchanged were nearly identical. Forty-three percent of the responses represented little or no change in perceived strengths; 42 percent represented a change in perceived strength. About 15 percent of students' responses were impossible to categorize either way, usually because they reported some of each.

We can infer from Table 3 that students whose ideas about their writing strengths did not change focused on organization. One student, for example, gave the following responses when we asked her to tell us what her strengths as a writer were:

- 1991: Organization. I usually try to get my points well thought-out before I start writing them on paper....I'm usually pretty clear and concise.
- 1993: Organization, and I don't know if conciseness is a word, but something like that.

Another students' response also serves as an example of organization being considered a strength:

Figure 10: Students' Perceptions of Writing Strengths, 1991-93



- 1991: Organization is pretty good, as far as knowing what I want to fit into the paper....
- 1993: I'm pretty organized, good at sticking to the topic.

In a few cases, students' senses of their writing strengths did not change because they felt they had no strengths. This student's two responses serve as an example:

- 1991: I feel I have none. I don't like writing; that's why I'm an engineer.
- 1993: What if you feel you have none? I don't think I do enough writing to have developed any.

Table 3 also leads us to infer that students whose perceptions about their writing strengths changed may have been a little more likely to value their abilities to write well-supported arguments as seniors than they were as beginning juniors and to value conciseness over creativity. Also, their focus on mechanical correctness shifted some. One student who grew to value her argumentative ability stated it this way:

- 1991: My instructor at Evergreen said I had a good "rhetorical flourish," which I think just means that I was good at bullshit.
- 1993: I think I am good at making a concise argument. Not that I always do, but I am pretty good at organizing an essay with a thesis and following through.

A second student expressed the change in her writing strengths as follows:

- 1991: I like creative writing a lot, and I think I'm fairly good at that. It takes me a long time, but in other writing I think I can get across what I want to say.
- 1993: I think that I am very clear and concise in my writing. Particularly in research papers now, I can make sure everything is logical, everything follows. In creative writing it is totally different. Those came very easily to me, and I wrote them a lot in high school and in my first two years here....So I am still at ease with creative writing, but now I can do another kind of writing as well.

Finally, another student's responses demonstrated changes in his perception of his writing strengths:

- 1991: I write with emotion.
- 1993: I think my strengths are the ability to present an issue in either a persuasive manner or in an informative manner. I can define what is involved and make it understandable to the reader.

WEAKNESSES

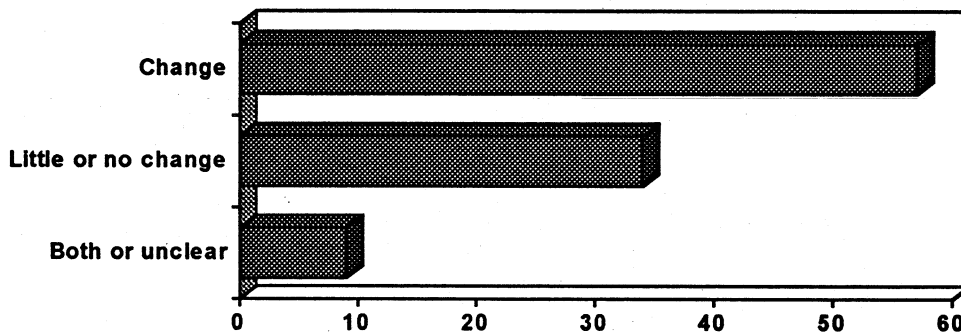
Referring again to Table 3, we can see that the weaknesses students identified most frequently at the beginning of their junior years were quite similar to those they mention at the end of their senior year. This is odd, because, unlike students' perceptions of strengths, individuals' perceptions of their weaknesses tended to change from their junior to their senior years. As Figure 11 shows, 57 percent of the participants listed different weaknesses during end-of-study interviews in their senior years than they listed as beginning juniors. Thirty-four percent of the participants' responses represented little or no change in perceived weaknesses over the course of the two years; nine percent of the responses either could be categorized as both changing and not changing or as unclear.

One way to reconcile the relative consistency in weaknesses in 1991 and 1993 with the fact that most participants changed their lists of weaknesses is to assume that the students who listed "mechanics" and "not being concise" were the ones whose perceptions of their own weaknesses did not change. For example, this student's two responses tended to support this idea:

- 1991: I may not be grammatically correct. I tend to be too wordy; sentences running on, etc. I depend heavily on my spell check.
- 1993: Poor spelling. I depend heavily on the computer to spellcheck, so I don't even pay attention half the time. Sometimes my sentences are too long.

Another example of a student whose perceptions were unchanged, however, did not fit into the picture our table presents:

Figure 11: Students' Perceptions of Writing Weaknesses, 1991-93



- 1991: When I'm reading something that I know I have to write on, I lose my concentration, and have to go over the article time and again. Writing on an article makes knowing everything about the article essential, so what I have to get out of the reading is more than if I were not going to write.
- 1993: Probably reading speed when I am trying to compile information. I can eventually come up with fairly good ideas, having understood what an article is dealing with--but it can take a very long time.

It is hard to say what is going on here, especially since the number of both strengths and weaknesses that we could categorize were so small.

In general, we see some indication that students' perceptions of weaknesses tended to change, but their perception of strengths did not. This could mean that those who comment on students' papers are more articulate about student weaknesses than about their strengths, or it might indicate that students develop new criteria for good writing in their majors, which dictates how they perceive their own writing problems.

DID THE PAPERS YOU WROTE DURING YOUR FIRST TWO YEARS IN COLLEGE PREPARE YOU FOR THE WRITING YOU HAVE DONE AS A JUNIOR AND SENIOR IN YOUR MAJOR OR NOT?

Participants' responses to this question indicate that students' often did, in fact, learn new expectations as they moved into their majors. Sixty percent of the participants said that the papers they wrote during their first two years helped them write those assigned in their majors, and most of those students attributed that help simply to the writing practice they got.

Forty percent of the JSWS participants, however, said that the writing they had done during their first two years did not help them write the papers assigned in their majors. Of those students, 69 percent said that the writing was not helpful because the demands of the writing assigned in the first two years were completely different from expectations for papers assigned in the major. Eleven percent of those who gave this response pointed to the fact that papers had required them to do no research during their first two years of college, but a good deal of research was required during their majors. An additional 36 percent of the students who said that their first two years of writing did not prepare them for writing in their majors stated that they had done so little writing in their first two years, they were not ready for the writing demanded in their second two years of college.

This response is consistent with findings in the Freshman/Sophomore Writing Study. In that study, 30 percent of the participants said that not enough writing had been assigned in the courses they took.

HOW WOULD YOU EVALUATE YOUR WRITING EXPERIENCE IN YOUR MAJOR?

During their final interviews, we asked students to evaluate the writing experience they'd had in their majors. We typed their responses into

the database, as students gave them, and we then read through them, categorizing those that were similar. Figure 12 shows the categories that emerged. These numbers do not total 100 percent, because students sometimes noted many features of their experience. However, as the figure illustrates, 38 percent of students' responses assessed writing experience in the majors as either excellent (6 percent) or good (32 percent). Nearly all of the students who believed that their writing experience was positive also stated that they had been offered many opportunities to write.

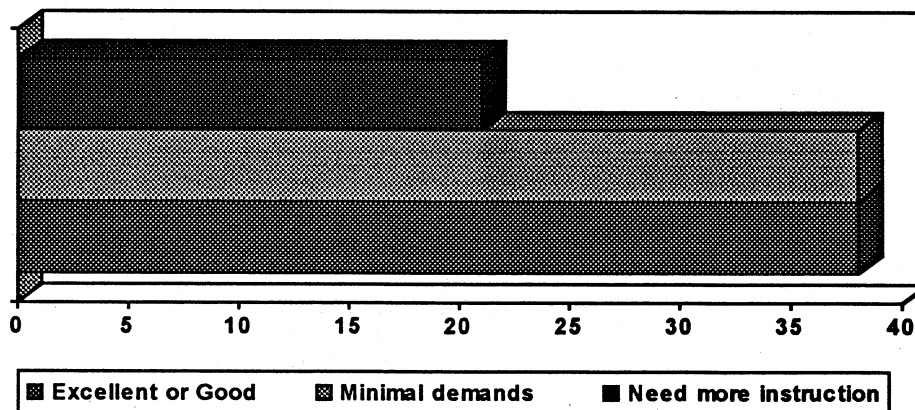
Another 38 percent, however, suggested that writing demands were minimal in their majors. Of these, 17 percent said that not enough writing had been assigned. One sociology major stated: "It totally amazed me that in 300- and 400-level soc classes, there were no papers required."

A psychology major points to improvement in this area: "...I think the profs in the psych department are going back to writing. They put at least short essays on the exams, which makes it nice, because for awhile there was no writing in the psych department. One person told me that he wrote three papers in his whole career here."

In addition to those who felt that not enough writing was assigned, 12 percent said that they had trouble evaluating writing in their majors because they had not done much writing. One student, a computer science major, had this to say: "Not much writing at all, mostly because computer science is 'Here is the history of computer science.' There's not a lot of writing until the graduate level." An engineering student put it this way, "It was lacking. It was possible to get through the entire program without being able to write."

Besides these two groups, the remaining nine percent of those who suggested that writing demands were minimal claimed that the writing they had had to do was not challenging. One business major stated, "...Just to be honest, it is hard to get a bad grade writing a paper, especially in group projects....If you write something on the topic and

**Figure 12: Students' Assessment of Writing Experience in the Majors
(percent of total responses)**



Another student, this one a business major, said, "I really don't think there's been enough writing to even do an evaluation." Finally, a turn it in, you get a 3.5." Another student agreed: "Easy. All I had to do was regurgitate facts in a sensible manner."

Twenty-one percent of our students said that they wished that they'd had clearer directions about what was expected, more writing instruction, or more feedback from professors and TAs when papers were assigned. One student's comment illustrates this problem: "In general, I think about half of the classes I took should have been more explicit about writing assignments as to what they wanted and how to write them." Another student says, "I'd like to have more feedback from professors regarding the proficiency of the writing instead of just the quality of the...thought."

This result raises serious questions about writing in the majors. Although students' wrote papers in more of the courses in the major than they did as freshmen and sophomores in general education classes, there was a strong sense among them that they were not required to do enough or that the instruction they received was not adequate for the task demands.

WRITING IN FIVE MAJORS

This section of the report discusses writing in five UW majors: business, English, history, psychology, and engineering. Each major is broken into the same subsections, including student project work, papers, other writing in the major, students' perceptions of their experience in the major, and sample paper and project assignments. The section ends with a comparison of writing in the five different majors.

It should be noted that our samples of students majoring in business (19), English (10), history (8), psychology (10), and engineering (7) are small. Therefore, we cannot draw broad generalizations from their experience. We believe that their experience and perceptions, however, are instructive and could provide an interesting starting place for departmental discussions about writing in these majors.

BUSINESS MAJORS

Every student majoring in business at the UW can expect to work in groups on writing or speaking projects. In addition, business students can expect to write many short assignments and to learn to research companies' histories, policies, and futures.

PROJECTS

Nearly every course business majors take requires them to do projects, most commonly group presentations on researched material. The following is a sample of projects required in specific business courses:

BUSINESS COMMUNICATIONS 301. "The group had to think up a business that it would like to start up and present it to the class, who were supposed to be investors. We had to convince them that ours was a good, feasible idea. [The presentation] lasted about 30 minutes; my part involved visual aids and lasted about six minutes."

BUSINESS 400. "The assignment was to study one of the five topics of an organization. We went to Safeco and interviewed people there to study their culture. There were five people in our group; two of us gave the report and the other three wrote the paper that went with it. I was a presenter, not a writer."

HRMOB 410. "Our goal was to develop an effective staffing plan for either a real or imagined company that is legally defensible under the new laws regarding hiring selection procedures under Title 7 of the Civil Rights Act....We chose a real company, and we did a recruitment plan as well as disciplinary procedures. We did a paper as well and presented it to the class, as if we were presenting it to the board of the company. This took 30 minutes."

MARKETING 340. "We worked in groups of four to develop an advertising strategy for a particular product. Our group chose Kodak film. Having chosen our product, we undertook three tasks: to produce a print ad, a TV ad, and a class presentation. The print ad was structured as a magazine insert, as if it were a photo album....The TV ad had six shots on a story board, with writing under each to say what the voice-over would be. In the group presentation, we explained...what competitors were doing, then presented our campaign. [This] included explaining why, given all the conditions of the market, we used a certain

theme....Each group member researched a certain section. I worked on demographics--who our buyers were. Then I was the one who put the material into a two page, single-spaced paper. We got a group grade on the project. We did well."

INTERNATIONAL BUSINESS 330. [Each group] had to choose a different product in a developing nation. Each had to come up with a business plan for a developing nation. We had a plan to distribute solar box cookers in India. One person in our group covered the management end; one described the product specifications; another talked about the market we were aiming at; and I talked about sales and advertising. The plan for the group that we had to hand in was something like 30 pages. Mine was two pages. It was mostly informative writing...."

PAPERS

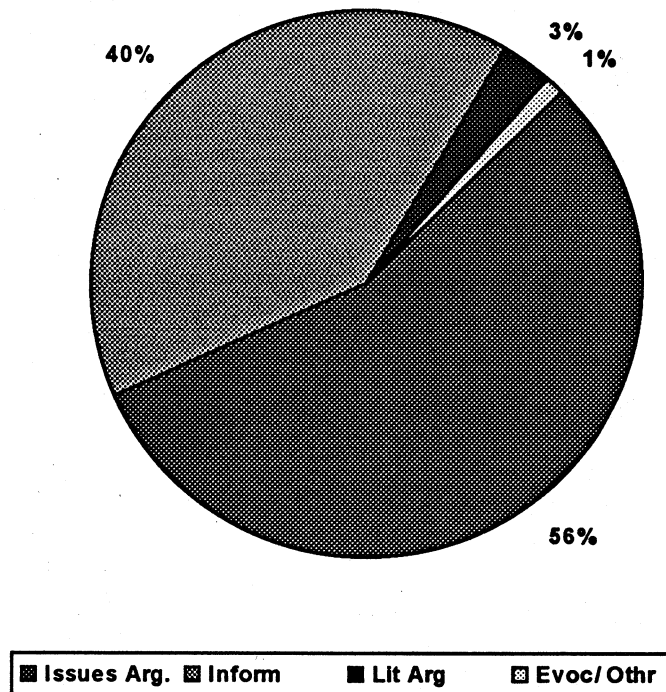
Regarding paper writing, in their junior and senior years, the 19 business majors in the JSWS wrote 241 papers, or 12.7 papers each. All but 24 of those papers--or 90 percent--were written for business courses. Many of these papers were assigned in Business Communications 301, a required writing course for students majoring in business. Business students could be expected to have written about 12.9 papers during their freshman and sophomore years at the UW, so we can assume that by the time these students graduate, they will have written about 25 papers, six or seven per year.

Figure 13 shows the breakdown of papers by type. Of the 241 papers business students wrote, 56 percent were arguments about issues, events or ideas. Forty percent were informative papers. Three percent were literary arguments, and only one percent were evocative papers. (A few of the papers could not be classified, because assignments had not yet been explained at the time of the final interviews.) Examples of paper topics are included in the "Samples" section that follows.

Many of the papers assigned were group writing projects. There are good arguments for using collaborative writing assignments in any discipline, but especially in business courses. Graduating seniors who get jobs in the private sector will find themselves working primarily in teams. Group work will include writing projects, and students will need to know how to function as members of a team on such projects if they are to succeed in the business world.

However, in their first two years of college, business students are likely to have had no experience working on writing projects in groups. They may have been part of peer review groups, where they have been responsible for reading and responding to other students' writing, as well as for listening to students' comments on their own writing. But they usually have no practice arriving at a topic, generating ideas, dividing workload, planning a writing strategy, researching, drafting, revising, and editing with other students who will share one assignment grade. Therefore, if they are to experience collaborative writing projects, they will have to get that experience when they are in the business major. In addition, those assigning collaborative writing projects should give students some instruction in how to manage such groups.

Figure 13: Types of Papers Written by JSWS Business Majors



While useful, collaborative writing projects also present certain problems. Usually, students working on group writing assignments divide the paper topic into sections, assigning each group member one or two sections. This means that even in a long paper, some students may actually do very little writing themselves.

A second problem related to dividing writing assignments into sections, is that usually not all group members end up doing the same type of writing. While the paper topic may be designed to get students to think analytically and to present arguments in support of certain solutions or interpretations, often only one member of a group will actually write the analysis "section." Others will write informative pieces on the company's history, for example, or descriptions of the company's current policies, and these students will not be getting the benefit of the topic's design. Therefore, though 56 percent of the papers business students wrote were argumentative papers, not all students who worked on those papers wrote arguments.

In addition to these problems, collaborative writing assignments often allow for free riders--students who get credit for doing the writing assignment, but who, in fact, have done no writing at all. These

students sometimes take on group responsibilities other than writing, such as giving the presentation attached to the paper or doing research for the paper. Sometimes these free riders do absolutely nothing.

Whether these students contribute to the group effort in some way or not, their professors and the people who hire them later assume that they have had practice and feedback on written work. In the case of these free riders, that assumption is not warranted.

Indeed, collaborative writing projects make it possible for students who dislike writing or feel deficient in analytical thinking to minimize their own writing experience by controlling their roles in these group settings.

The following sample of student comments on working on group writing projects illustrates these problems.

BUSINESS COMMUNICATIONS 301. "This was a graphics memo that was attached to our group project. It included graphics, and we were supposed to write it as a group, but I ended up writing it myself. I had the worst, flakiest group."

MARKETING 301. "The report was supposed to be written by the group, but I actually wrote all of ours."

HRMOB 400. "This was a group project that produced a paper about 15 pages long; my segment was 2-3 pages. Each of us in a group of six took some aspect of the study of a particular company....My part was about the socialization process."

HRMOB 400. "It was a group paper. We went and interviewed four people at SAFECO about their culture. We wrote on how organizations' cultures form and how SAFECO formed its culture. I wrote nothing on the paper, because I did the presentation. Our group agreed that three would write and two would present."

MARKETING 301. (Same student as above) "We had to do a strategy report and a summary report in groups of four....[For the strategy report] the work was divided by the list of basic questions we had to answer for set points. In the group, we just kind of brainstormed together, and the girl who took notes put the paper together for the group. The summary report was on what our initial strategy was compared with our final evaluation....I wanted to get us all together and write it out, so that not just one person wrote the whole thing, but...the other three people said they would write it on Friday with the computer. I couldn't because I had to work, so they wrote it. They did a very good job."

When students complained about working in groups, we asked them why they believed groups were ineffective. Several participants pointed to the differences between consequences for non-participation at the UW and consequences on the job. At the UW, faculty members do not know who participated and who did not. The only consequence for failure to be a team player at the UW is the anger of group members. Because students regard each other as equals--even if they are not participating as equals--they will rarely report non-participation to professors.

But in the working world, if one does not perform, she can be fired. Colleagues are unlikely to protect workers who threaten the performance reviews of others. And supervisors are paid to know who is performing

and who is not; indeed, their own job security and promotions often depend on the performance of those they supervise. Consequences, therefore, for failure to contribute to the group effort are clear and often immediate.

The problems business students encounter in working with groups on writing projects are serious but not insurmountable.

STUDENTS' ASSESSMENT OF WRITING EXPERIENCE

About 37 percent of the study's business majors felt that their writing experience was excellent or good. One of those students had this to say: "I think that the business communications class...should be required for every student at the UW, because...no matter what profession you're in, you are going to have to turn in some kind of report or write a resume. I think a lot of people in majors other than business aren't learning how to write these kinds of papers."

However, most of the business majors had concerns about their writing experience. More than half of the students mentioned concerns regarding the amount and difficulty of papers assigned. One student said, "It is not enough. I think more emphasis should be put on writing....I [didn't] feel challenged."

About a third said that they would have liked more writing instruction and feedback on papers. One student stated: "The teachers didn't seem to communicate very well what was required and what they expected." Finally, a few students mentioned problems in working in groups on writing projects.

These numbers are consistent with general findings for all majors, noted in the "Student Perceptions" section of this report.

SAMPLE PAPER ASSIGNMENTS

A sampling of paper topics assigned in business courses, as well as student's descriptions of how they responded to those topics, follow. We have not chosen to include these particular topics, because we think they are better than others; rather, we were aiming to provide readers inside and outside the major with a varied sample. Also, we have not included short writing assignments, those up to two pages long, in the list of paper topics. Though sometimes edited, the descriptions that follow were collected during interviews; we have tried to maintain the students' own words.

ACCOUNTING 301. "The topic was 'Should people be put on the balance sheet?' That means, should you list your employees as assets on official financial reports. Currently, people are not listed as assets, and we basically had to write on whether we thought that was right or not, using concepts we had studied to justify our answers.

ACCOUNTING 302. "The first one was on early extinguishment of a subsidiary's mandatorially redeemable stock. The problem was whether to treat this kind of stock as debt or as equity; there is no FASB statement on this. We had to read about debt and about equity and get at the substance issues. The second paper was on whether research and development costs can be depreciated over a long period of time or whether they must be counted as relevant to one year."

ACCOUNTING 311. "The topic was a calculation of a break-even point for Duo products and was assigned in format of a memorandum. He gave us different production levels and cost drivers for four different situations, and then we were required to go through them and tell what the break-even point, sales dollars, and physical units were for each production level. I did four charts and then wrote up a four-page memo explaining how I calculated it."

ACCOUNTING 490. "Only five writing assignments were graded, but we had to turn in nine. Each was 500-700 words. We could choose our own topics for the four ungraded writings; the others were assigned. A topic would be an issue in accounting that has not been fully addressed in the accounting guidelines, something on which there is a controversy on how recording should be done. We would explain our views on the best recording procedure."

BUSINESS COMMUNICATIONS 301, three versions. "These were both progress reports, one done for a group and one to hand in individually. For the first one...we had to say who we were, what issues we were studying, what possible alternatives were, who our audience for the presentation was. We said we were five consultants, working for a company that wants to invest its money in opening a health/fitness center for people 50 years old and older. We just told what each person [in the group] was researching and what we had already accomplished. The second report was individual. We had to say what we had been researching. I studied the health statistics of people 50 and older, and I also said how the Golden Athletic Club would help those [people]."

"We were given a list of statistics having to do with female employment there over a three-year period. We were supposed to analyze the statistics and write on the trends we found. The question of female employment was broken down into white- and blue-collar categories. I called myself the assistant to the administrator of the human resources department, and I wrote the report for my supervisor. The paper was an analysis of the statistics: what they suggest about where GM is going, what future appears likely. I was not recommending any course of action."

"This was a group paper on establishing a business in Scotland. The four people in the group wrote separate [sections], and mine was about three pages of text plus four pages of graphs and maps. My part was on geographical and marketing aspects of the decision to place a pharmaceutical company in Scotland. I gave information on the climate, the population, the education level, the transportation networks; then I turned to marketability, dealing with access to the UK and the European Common Market--advantages to being in Scotland, rather than the U.S."

BUSINESS ECONOMICS 300. "The paper discusses the effect of a price ceiling on AZT in society. The concepts we needed to apply in this paper were presented in class. Everyone wrote on the same topic."

BUSINESS POLICY 470. "The midterm paper was a group paper. It had to be 20 pages long. We had to choose an industry and do an industry analysis, then write a paper on what we learned. My group chose the air cargo industry. After the midterm paper, we had to choose a specific business, and we chose Airborne Express. This final paper was also a group project. For both papers, I wrote the finance sections. I gathered the financial information and did the analysis, computing

ratios that indicate problems and/or strengths. I did that because I was the accountant in the group. My part in each paper was 2-3 pages."

BUSINESS POLICY 471. [The first paper was] a venture history profile. I wrote on a friend of a friend's company, a steel construction company that puts up water tanks and things like that. The paper was basically chronological, including how the company got started and how it is doing now. Second, there was a group project, for which we wrote a long report. This was a project in which we served as consultants for a relatively new company and helped them write a business plan. My group worked on a remodeling company and developed a plan to help get extended financing from a bank. We gathered various kinds of data...then each of us drafted some part of our report. I drafted about two pages on our visit to the Small Business Management Office. We gave our pieces of draft material to one group member, and he did the actual writing of the paper.

BUSINESS POLICY 480. "It was a group effort. We wrote a summary or annual report about the imaginary company that we developed during the quarter. I did most of the graphs and the market sector, which was about six pages. I just summarized what had gone on."

FINANCE 499. [We had to write] an informative paper on market investment strategies. The paper basically explained how an investor can invest in equities without taking the risk of normal equity investment. It was such a new topic that basically even Wall Street hasn't classified it yet.

HRMOB 400, four different courses' assignments. "The first one was an analysis of a case. We had to read it, apply facts from the book, pull out the problems, and produce a solution--one that the group felt was best....I wrote about one particular problem [of the ones we looked at]--a lack of direct line of authority within the organization....The second one was supposed to critique the group, to write about our experience. She wanted us to just rip facts out of the book and to apply them wherever we could."

"This was a group project that produced a paper about 15 pages long; my segment was 2-3 pages. Each of us in a group of six took some aspect of the study of a particular company--Minolta Business Systems. We concentrated on the socialization of new employees and the continuing motivation of employees. My part was on the socialization process. Some members of the group produced information, for example by interviewing....One group member put all the information and drafts (like mine) of individual sections together to make one flowing paper. We sent a copy [of the paper] to the company."

"You were given a situation of miscommunication, and you were supposed to identify the tools we had learned in class that you could use to alleviate the problem."

"I chose to do [the paper] on women and stress. I defined stress, described how it affects women, and what should be done about it--whether employers should have anything to do with helping [employees] deal with it. I used magazine articles for facts and then developed my own ideas on it."

HRMOB 410. ["We had to come up with a staffing plan and] to support why we chose it in our particular industry. Our group chose Evergreen Hospital. I did the actual selection procedure, what we would use and why...Others had discrimination, where we would get our applicants,...how we would advertise...how we would get minorities to apply. I wrote about a page and a half of the report."

HRMOB 415. These reports represent the three phases of the large group project, the sole basis for evaluating our work in the class. As described above under projects, we developed a legally defensible compensations plan for a company, the company represented in the case material we were given. The first phase report laid out our basic compensation system; the second was based on wage surveys and analysis of the external competitive market for employees. The third was a synthesis of what we had already learned and worked out, applied specifically to the company presented in the case material.

HRMOB 420. The first two papers were 3-4 pages, and they were explanations of the issues in grievance cases passed out in class. We had to identify the important aspects of a case from both sides and explain why they were important. We had to include a consideration of how each side might respond, but we didn't have to say how to resolve the conflict. The third paper required going through the arbitration process, identifying what criteria we would use to resolve a grievance case, whether we would make any monetary rewards and how much. The subject-case was our choice among those discussed earlier in class; we could use one we had already written about if we wanted to but it wasn't necessary. We researched the criteria and monetary award matters. We had to present the arguments that each side would make and explain a decision based on the arguments that had been made.

HRMOB 450. "We kept journals all quarter, and our journal reflections received a single grade at the end. The class was on the process of negotiation, and we were frequently given scenarios in which we had to play a role, negotiating with other students who got different information and played different roles. In our journals, we wrote about our experiences in the negotiations, and we related those experiences to readings in the class, sometimes challenging the readings if our own experiences didn't match. The second paper was a traditional 'paper.' It was 10 pages long and based on a case handed out in class. The case was about negotiations between General Motors and Toyota, as they worked out their cooperative manufacturing arrangements. We had to critique the negotiations."

HRMOB 470. "The paper was an opportunity to analyze motivational issues within an organization. We [gathered] information on how an organization attempts to motivate employees and how effective they are at doing it. We were to use motivational theories we studied in the course to frame our analyses."

INTERNATIONAL BUSINESS 300. We had to find an export opportunity that someone who made a product in the Seattle area could use. We had to see what the opportunities were to export the product out. We had to use the National Trade Data Bank, which gave us a list of specific peoples in certain countries who wanted certain products. Then we had to look up who made the product in Seattle. I ended up arguing that a company in Seattle could sell sportswear to Italy., so the company I picked was Eddie Bauer. We had to call the company and tell them about the

opportunity. They told me they didn't need to export; their domestic market was good enough."

INTERNATIONAL BUSINESS 340. Everyone picked a country and researched its foreign investment climate. Germany is what I did. We had an outline that she gave us that we kind of followed. It included general information, like population, ...government influence on business and incentive for investment, [and] the social and labor policy there. After you analyzed all these factors, you were supposed to decide whether it was a good place to invest. That was only half of it. The second half was an industry analysis of the German automobile industry; you could pick any industry in your country. We used as a basis this book we read by Jordan, which listed criteria for assessing the competitive advantages of industries or countries, [to] analyze whether the industry had an advantage, what it could do to sustain it, and what it could do to improve it in the future.

INTERNATIONAL BUSINESS 470. The first paper was a case involving an overseas company with an international trade problem or situation. The company was based in Spain, and it was trying to decide...whether they should try to go into international markets at all, whether they could trust the Japanese, one of their potential markets. The paper was based on a 10-15 page case that the class was given in a handout. The second paper was similar in format, but on a different company with different problems. This time the case involved cash flow problems with markets overseas, particularly how to solve late payment problems with Argentina. The third paper was...a report of our experience trying to export salmon. [It was] a group project, for which I wrote only the last page on what we would do differently next time. We didn't have much time to do the paper, and it didn't count very much. [The third paper was attached to a presentation.]

INTERNATIONAL BUSINESS 480. "All three were group papers. The first two were analyses of cases that we read on companies doing business internationally. We read the case individually, then we met for about half an hour, [each deciding] what part of the paper we wanted to do, according to the outline of the parts given to us by our professor. These papers were 3-5 pages long. The third paper was a project done over the whole quarter, analyzing an issue for an international company or industry. My group chose the environment and how it is affecting the auto industry. The paper was 15-20 pages long; there were just two members in my group for the project."

MARKETING 301, two versions. The whole class was given what is called "The Marketing Game." It is a project where we all had to act as marketing managers [for a fictitious company] we all came up with. We came up with our own company name, the product itself, the promotion, distribution, and price. There was competition within the class. We turned in our decisions about target marketing, strategy, etc., and the TAs fed the data into a program. Then we got reports on how well our companies did. The report we wrote...at the end...explained how well we had done and what we thought about why. Doing well was not important in itself; what was important was our reasoning for each of our tasks.

"The first was a paper on packaging products. We had to research what makes a good package, find out what regulations are relevant, and consider different concepts, depending on the item you are selling. You had to basically write what you found out--a descriptive paper on packaging issues, with a postscript on what you consider an example of a

good package. I chose the Gillette Sensor Razor package. The second paper was turned in as part of the final, so we did not get it back. It was an ethics in marketing paper. We were given nine scenarios dealing with ethical issues, and we had to choose one and write on what we would do in the particular situation. I wrote on the Nordstrom case, where the union had filed a law suit because employees were expected to do deliveries or other work on their own time, but the employees, themselves, didn't want the suit."

MARKETING 310. [We had]to do a presentation and write about it--put it into written words. Mine was on grocery delivery service. The purpose was to look at the feasibility of setting up a grocery delivery service.

MARKETING 330, two versions. "You just needed to pick a case out of the book, follow the format that was given, and turn it in so that he could determine your strengths and weaknesses in case analysis. I picked the case where the executive had a terminal disease, and it was affecting his performance on the job. He was making everybody around him quit. I said that he should be offered an early retirement and retained as a consultant."

"It was an executive summary of a proposed marketing plan for a fictitious company. It was setting up a sales district for an automotive product. I did basic demographic and population research and cost and finance analysis."

MARKETING 340, two versions of the same assignment. "I worked in a group with four other students. We had to evaluate the industry, develop an ad strategy for it, make our advertising and our market objectives, and [determine] a way to implement the plan. We picked Kellogg's Instant Cereal Bowls. We recommended that we target working parents, and our marketing objective was to create awareness in 30 percent of the market and increase our market share by 2 percent. We were arguing that this was the strategy Kellogg's should use. I wrote about five pages of the 12-page paper."

"The topic was the advertising strategy the group developed to sell the product we focused in on--Kodak film. The paper explained what our rationale was; it gave the background for our class presentation on our strategy for the print and TV ads [which we also developed]. I used the Marketing Research Index as a source of information on current consumers. Others looked into competitors' products and examined marketing trends."

MARKETING 450, two versions. "Everyone in class had to do a comparison of two people who had bought a similar big-ticket item within the last six months--how they gathered information, how much they thought was enough, how they evaluated the item, etc. My two best friends got engaged within the last six months, so I researched how they went about buying engagement rings."

"It was a research paper. We had to find a topic and relate it to consumer behavior. We were working in groups of three. We did social classes and reference groups. We talked about how the different social classes go about the purchasing process different ways. We gave a background section on how social classes came to be and the different kinds of products they buy. I wrote the background section and the different products they buy and the characteristics of each class--about six of the 15 pages."

MARKETING 460. "This was a group project, a comprehensive, exhaustive research project. We had to come up with a research question, conduct surveys, analyze statistical data, and write it all up. We randomly surveyed members of the UW student population, collecting about 350 responses. The writing itself was minimal."

MARKETING 540. "We had one giant project, a group project. We did a strategic advertising campaign for a real client. We worked together well; it's hard to isolate what I did, but I did a lot of the writing and editing, a lot of the creative process and formatted the presentation."

OE 302, three versions. The first one was primarily on stakeholder analysis. We had to grab an article out of the newspaper and say who the primary stakeholders were, who had the primary power, and what did they want. Mine was on Boeing. They purchased Longacres. Some thoroughbred breeder's association wanted to use the stables, and I pretty much said that Boeing had more power....The second paper was on equatorial Guinea. The assignment was to set up something that would solidify the country's stature. I said that they should...set up a fish processing plant in boats, because they have a lot of disease. I said they could use a processing system to preserve the fish and supply the rest of Africa. Part of the problem was to get [the plan] through all the corrupt officials.

"We were assigned to research the case regarding advertising of alcohol and tobacco. We were to identify the issues, give the history behind the issues, and recommendations. This was a group project, six people in the group. I wrote...with my partner...about 2-3 pages. One of the girls wanted to do the recommendations, so she did. A lot of the advertising right now is aimed at people under age, and I think we recommended restrictions on that and more monitoring."

"We were assigned to read a book of our choice. I chose *Trump, the Art of the Deal*. Then we were supposed to relate some of the theories we had learned in class to the book. I kind of veered off from what I was supposed to be writing about. I did an analysis of the book, or a book report, instead of relating it to class."

OE 310. The topic was some statute or area of law. For example, you could have done a paper on air pollution or you could have focused in on one aspect, like the Clean Air Act. Basically, we were supposed to deal with how things were working in society before a law was passed, what the problem was, the governmental response to the problem, how well it worked, and what could be done in the future to improve on that law.

OE 440. The class was given a case...that involved a bank, and we were to describe the organizational structure, identify features of the external and internal environments that were having effects, and recommend changes for the organizational structure. Each group member drafted a different section, then we got together to assemble the paper, work out continuity, and proofread. My section was the one describing the current structure. I also helped on the introduction.

OE 441. "We're reading a bunch of classics, like *Catherine the Great* and *Attila the Hun* to look at leaders....their management styles. Based on that, we have to give a presentation and write a paper about what our personal management philosophy is. We don't really have to use texts to

support it; we just use the readings and what we have discussed in class to help us write it. We made a list once of management philosophies and styles, and he provided an article to draw on. He called it our 'mantra.' He doesn't want us to defend our philosophy; he just wants us to think about it and know what it is before we go out into the business world."

ENGLISH MAJORS

Students majoring in English write about 16 papers each academic year, or about five per quarter.

PROJECTS

All but one of our 10 English majors were assigned projects other than writing in at least one of their English courses. Most of these projects involved performing--acting a scene from a Shakespeare play for English 314 or video-taping mock interviews with authors studied in English 333--or leading class discussion. Nearly all projects were done in groups.

PAPERS

JSWS participants who were majoring in English wrote a total of 161 papers, about 16 each. Twenty-five percent of those papers were written for courses other than English, including psychology, music, business, communications, history, general studies, sociology, environmental studies, Chicano studies, art history, dance, and philosophy courses. Figure 14 shows the breakdown of papers English majors wrote by type. As the figure shows, the majority of those papers--45 percent--were literary arguments. Twenty-four percent were arguments about issues, events, or ideas; 19 percent were evocative papers; and 12 percent were informative.

STUDENTS' ASSESSMENT OF WRITING EXPERIENCE

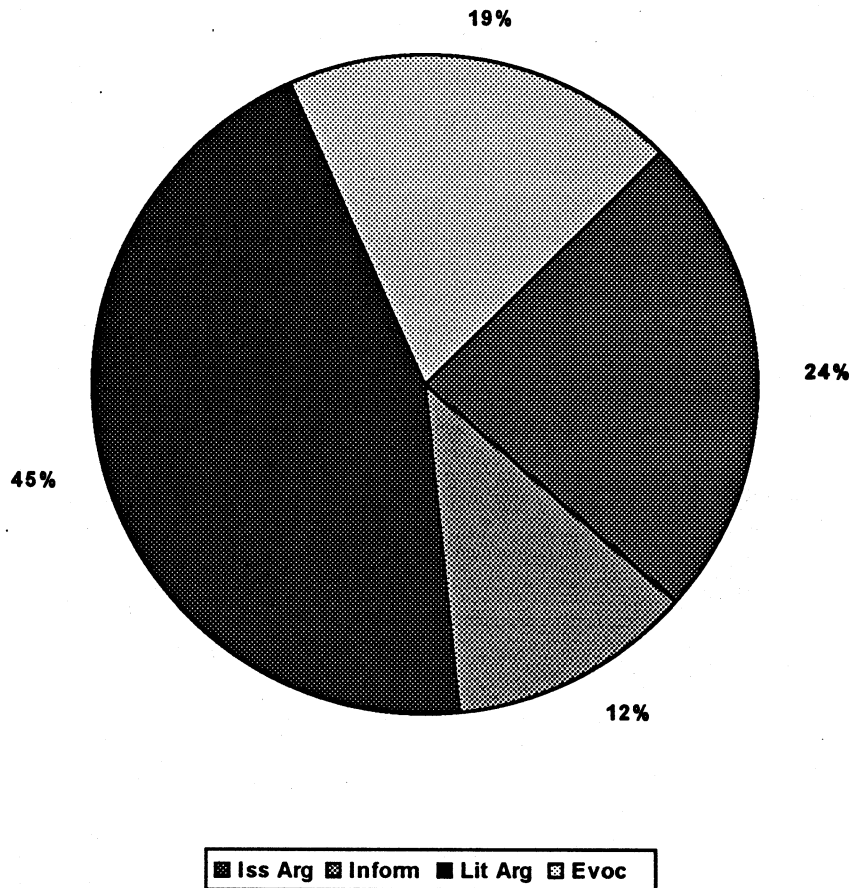
English majors generally regarded their writing experience as positive. Half of our majors felt their writing experience was excellent or good. One student said "I think I have gotten a lot of practice with a lot of different styles of writing. I think the key to being a good writer is lots of practice."

Concerns were raised by other students. Some felt that more emphasis could be placed on revision: "Accountability as far as revision goes was generally very low," said one student. "I think it would have helped to have drafts due in literature classes." Others said that professors could state expectations more clearly and that they wished they had been assigned more creative writing in the major.

SAMPLE PAPER ASSIGNMENTS

The following assignments represent a sampling of paper topics students completed for English courses. We have not chosen to include these particular topics, because we think they are better than others; rather, we were aiming to provide readers inside and outside the major with a

Figure 14: Types of Papers Written by JSWS English Majors



varied sample. Also, we have not included short writing assignments, those up to two pages long, in the list of paper topics. The descriptions that follow were collected during interviews and, though sometimes edited, they are given in the students' own words.

ENGLISH 198, writing link with Sociology 371. "The first paper was a topic on a crime--[something] that we felt was a crime. We had to do research on it and discuss...the dynamics of the crime. I chose sexual assaults in prison. We also had to pick two theories of why it occurs and say which was better at explaining the crime. The one that I found didn't work as well was sexual need as a cause. I thought it was more aggressiveness and power and was usually racial. The second paper was also due for the sociology class, but we got to work on it before. We had to read a book and draw a theory out that could be tested....[then write the] front end of a research paper, tying it in with more reading from Sociology 371. The third paper dealt with the crime that we'd written about in the first paper. [We had to write about] how public

policy affects it, how society as a whole is involved, and what can be done to reduce it. We also had a portfolio paper....We had to take five samples of our writing from that class and talk about how we'd improved or how [the sample] was important to us as writers, how we'd improved."

ENGLISH 203. "First one: the theme of the paper involved Dante as a person and how he responded to both the more humanist side...and the more religious side...of good and bad. *The Divine Comedy* is tied into the purge of all of these negatives...to try to find that heavenly light. I proposed this topic. Second paper...was on *Paradise Lost*. I proposed writing the paper on Stan not being totally bad but a kind of victim of circumstances, who ends up totally degraded....

ENGLISH 204. "First one: we were to write a 4-5 page essay one on one of four topics. I wrote on Swift's *Gulliver's Travels* and Voltaire's *Candide*. I contrasted their methods of presenting their stories, their different views on religion, their uses of understatement, and their discontent with humanity. Second one: I wrote on comparing the use of the double in *The Secret Sharer* and *The Picture of Dorian Gray*. I said that they both had the common element of doubling, and I said the doubling shows what the characters' attitudes were about this transformation, what the characters thought of their doubles."

ENGLISH 271, INTERMEDIATE EXPOSITION, four different sections. "The first paper was about what it meant to be an American. I wrote down that I was troubled about the fact that I am a member of a society that treats foreigners differently based on the color of their skin. I also wrote down that I thought the attitude of Americans that 'We're the best' has led to nothing but trouble. Those were the negative aspects. On the positive side, I felt good about the first amendment. [For the second paper] we were supposed to talk about some aspect of race discrimination. I talked about the prevalence of race discrimination in the sports arena....[For the third paper], we were supposed to talk about family. I talked about a lack of independence from my mother. [The last paper] was about education. I tried to rationalize why we need ethnic studies in higher education."

"All three papers had the same purpose. Rather than critiquing other articles, we were supposed to take a point of view and write from that point of view. The papers were based on research, both the readings assigned for class and further library research....The subjects were fairly open; they just had to do with the media's effect on politics. The first two papers were to focus on TV news, and the third on newspapers. We could write on how one candidate was being covered, how the profit motive affects coverage, the horse-race aspect of coverage, etc. I wrote about the profit-motive, about TV biases on candidates during a particular week, and a third thing--I don't remember quite now."

"The first paper was to be a letter that we wrote and mailed to an advertiser about some sort of sexual exploitation we had noted in advertising. I wrote to Bally's, a health club, that had a very irritating ad running in the *Seattle Times*. It depicted women as weak and dependent, while the man in the ad looked very strong and independent and was turned away from the woman. I told the health club...that they were alienating part of their potential audience. The second paper was again a letter, but one we didn't have to mail. We had to write as if we were doing a report to a company on sexual harassment in their firm. I just changed the name of the company in what I wrote

but worked with actual stories. I interviewed two people I knew who had been harassed, described the harassing situations, why they were harassment, and outlined a policy to stop harassment in the firm. (I didn't actually write on sexual harassment but on supervisor harassment--supervisors getting too much into employees' lives. I got permission from the instructor for this small change of topic.) The third paper was about childhood sexual abuse. The fourth paper was on media coverage of rape. I compared writing about rape in three articles--one from a newspaper and two from magazines."

"First paper: We were to figure out how we interact with the media--how often, what types, and if it affected us at all. I concluded that people were grossly overacting on television. Second paper: You had to pick a commercial and dissect it, decide what the commercial was doing. You had to say what you felt the purpose of the commercial was, and you had to decide who your own audience was--who you wanted to alert. My audience was women concerned with media's portrayal of women. I took a yogurt commercial and said that the commercial was basically a visual orgasm. There were all these phallic symbols portrayed....While on the surface the commercial looked like it was empowering women, it actually wasn't. Third paper: She gave us several different topics....to tie to a social issue or a social statement. I chose rock and roll. I took John Mellencamp and his song, 'Jack and Diane.' I moved Jack and Diane into the song that would have followed his. I talked about the statement he was making about middle class America, where Jack and Diane started and where they ended up. In my paper, they ended up dead on the streets--poor. It was a frustrating paper. Fourth paper: We had to use journal entries we had done to analyze a theme that we saw was predominant in a sitcom we had been watching. While a lot of people see Murphy Brown as the cutting edge of working women, I decided that wasn't true at all. I argued that she was just a man in women's clothes."

ENGLISH 277. "We were to write...fiction--two stories."

ENGLISH 281. "Both involved comparisons. The first required comparing Gary Wills' 'Message in a Bottle' with Chopin's *The Awakening*. I was using an idea in Wills' essay about our perception of what is real, applying that idea to Edna, the character in *The Awakening*. I also used a short story we read, also by Chopin, called 'A Pair of Silk Stockings.' The second essay is a comparison between Douglass's 'Slave Narrative' and Spiegleman's *Maus*. This one is about how, by seeking freedom of the individual, they limit or enslave themselves. They need to take extraordinary means to preserve or acquire their freedom, and as part of this process [they] create a strong identity for themselves. That identity, in the end, is its own limitation."

ENGLISH 304. "For the first paper, we had a choice of topics on Joyce's stories or Yeats's poetry....I chose to compare two stories in *The Dubliners*, specifically, the frustrations the characters shared. For the second paper,...I chose the following topic: 'Discuss the appearance and treatment, in both Montague's and Murphy's poems, of either violence or dispossession.'"

ENGLISH 309. "For the first paper, we had to pretend we were a Jewish witness to Jesus's crucifixion. We just had to say what we felt about it and how much we understood. I wondered why he didn't save himself if he was so all-powerful, if he was the son of God--which a lot of the people at the time felt. The second paper was about the history of God. We had to take three or four passages and show how God's personality

evolved through the different authors of the *Bible*. I compared passages where God was all-powerful to ones where he was weak and human. The third paper was about the kingdom of God--which I barely remember. I don't remember at all."

ENGLISH 311. "It was on two of the debated ideals of Chaucer's time, which he wrote about. I was drawing from several different works...examining Chaucer's view."

ENGLISH 314. "He gave us a choice of topics. We could choose to write a sonnet and tell why we chose to write it that way, or we could do a comparison of the sonnets 'Venus and Adonis' and *The Merchant of Venice* on love and friendship between men and women. This is the one that I did. For the second one, I wrote on *Henry V* and *Hamlet*, and how one can distinguish between one's feelings and one's judgments about the characters."

ENGLISH 315, two responses. "We had a choice of topics. I wrote on the one that required comparing Shakespeare's words to the glosses on those words by an editor. I had to consider how the glosses pulled the reading away from concrete, sensuous experience, how the glosses did not do that, and 'meditate' between the two views. The paper could be based on any of the plays we read; I wrote on *Measure for Measure*."

"The first paper was basically an open one--no direct assignment. I wrote on *Othello*, exploring the role of justice in the character's actions. The second paper was on *King Lear*, and it had to do with Olivier's interpretation of the play. My basic theme was that Olivier was very caught up in finding this summit of tragedy...and I thought that wasn't really it. I think of the play as grotesque, darkly comic. I criticized the score and camera angles that were used to enhance tragic effect and that I thought were absurd."

ENGLISH 327. We got a list of four questions to pick from. The one I chose had to do with a quotation from Kingsley Amis about Henry Fielding. I had to support or refute what Amis said. For the most part, I agreed, though there were a few spots in the novel that didn't go with what he said."

ENGLISH 333. "You could choose your topic, and I wrote on Hemingway's use of words, how he felt about words as evidenced in the one we read, which I think was *A Farewell to Arms*. I wrote about how he was distrustful of big words, abstract words; it was really indicative of his whole philosophy to be distrustful of abstraction in general, even to the point of denying spirituality."

ENGLISH 340. "The first paper was comparing narration in *Mansfield Park* and *Wuthering Heights*....I didn't really make a point. The second paper was about personification in *Great Expectations* and Dickens' consciousness of metaphorical themes that appeared to run through the book. There was a subconscious awareness, a conscious awareness, and an intermittent awareness."

ENGLISH 346. "We had read Sophocles three tragedies, and I tried to apply the structuralist viewpoint in analyzing them, especially using Barthe, his idea of the simulacrum. The second paper was a group project. The total length was 18-20 pages; my part was about 5. The question was, 'As a group, develop your own criteria for the evaluation

of literary texts.' We created a false headline for a newspaper and wrote an article on a fictitious author who had just received the Nobel Prize for literature. Then we divided up various critical perspectives to be represented by letters to the editor, and we wrote the letters, some of them favoring the award, some with reservations, some attacking the award. We had about 10 letters, each attempting to articulate a particular viewpoint. Then we jointly composed a culminating piece, which expressed the views of the group as a whole regarding the topic question, integrating references to the letters....The third paper was basically to develop my own critical philosophy. The emphasis this time was not on method or issues, like value judgment, that were important in the second paper. Instead, the assignment was to explain my own philosophy toward literature. I tried to show how to establish a 'conversation' with the author, become more intimately connected to what was in the text."

ENGLISH 353, two responses. "Both papers I wrote instead of taking the second midterm....First, I was to read 'The Yellow Wallpaper,' and I had a choice of questions. I chose 'Argue how the social system and the woman's traditional marriage work to drive her crazy.' I was not to describe her craziness, but to argue its cause. For the second paper, I had to discuss how and why three of the characters in *The Marrow of Tradition* are racist. Again, I was told to argue, not describe."

"I guess the topic was whether or not Hawthorne's position was that of a relativist. I think I said that he was, but it was more complicated. I read *The Scarlet Letter*, and I said that he wasn't as relativistic as we call people now, but that he was relativistic for the people of his time."

ENGLISH 363. "It was a children's lit class, so the papers were usually a fairly specific topic on one or more books. The first one compared plots between *A Swiftly Tilting Planet* and *Adam of the Road*. The first book was pretty intricate, and the second was pretty slow; I was analyzing the differences. The second [paper] was about the use of illustrations in two book; the third about exploring dreams throughout a book; the fourth a comparison of *Beauty and the Beast* and *Snow White*. The fifth was about finding different stories in *The Jungle Book* and explaining them, and sixth was discussing the sense of home in *Wind in the Willows*."

ENGLISH 379, two versions. "The papers were based on the four topics covered in the book--racism, geopolitics, AIDS, and parent/child relationships. On the parent/child one, I talked about the difference between how I was raised, as opposed to my brothers. It was based on one article we read, which argued that children are bound to disagree with their parents. I argued against that, using the differences between myself and my brothers....For the racism one, I just talked about how we needed to educate both sides, agreeing with an article that staid both sides have stereotypes about the others. For AIDS, I talked about the media coverage of Magic Johnson compared to the coverage of Rock Hudson. It was different because of the homosexual/heterosexual issue. I was making an argument about the homophobia of the media. For geopolitics, I wrote about the American education system, comparing it to systems that are working better around the world and what they are doing different."

"There were four types of papers and then a paper in response to an essay that we choose [due in the class]. My informational paper was on

manuscript evidence for the historical reliability of the Bible. For the deliberative paper, I wrote on the voucher program on Capitol Hill, through which people can buy vouchers for health care, food, etc., and give them out to people on the streets [instead of cash, which can be used to buy alcohol]. My argument was that the University District Chamber of Commerce...should choose to implement the program at their meeting this month. The next paper was the reflective/exploratory paper. I wrote about different experiences I have had where nature was in some sense overwhelming and generalized form that about humankind's relationship to nature. I felt like I was totally rambling throughout this one. For the performative paper...I did a mini-biography of Corrie Ten Boom, a concentration camp survivor. My main point was that she was different from a lot of survivors because of her relationship with God. I haven't done the fifth paper yet."

ENGLISH 425. "We knew at the beginning of class that we would be writing three stories. Except for length, there were no specific requirements for the stories. I wrote first about a young boy and his grandmother, writing in third person. My second story was about three friends, fresh out of high school, who take a trip to Arizona and get abducted. That was also third person. My last story was about a girl and a father who takes her on a hunting trip--again third person, although this was a true, autobiographical story."

ENGLISH 427 & 493. "These are chapters of a novel I am working on...about my father's experiences in Alaska. I am continuing to work on it in this creative writing conference with Charles Johnson. I am more informative; 12 percent were literary arguments; and two percent were evocative."

History majors did none of their paper writing in groups. working on Chapter 4."

HISTORY MAJORS

Students who major in history can expect to do a great deal of argumentative writing, much of which requires research.

PROJECTS

One of our eight history majors was assigned a project other than a writing assignment in a history class--History 498. In that course, students were expected to present a section of the text under discussion for that day, to raise questions about that section, and to lead discussion. Two other history majors had projects, but they were for courses other than history.

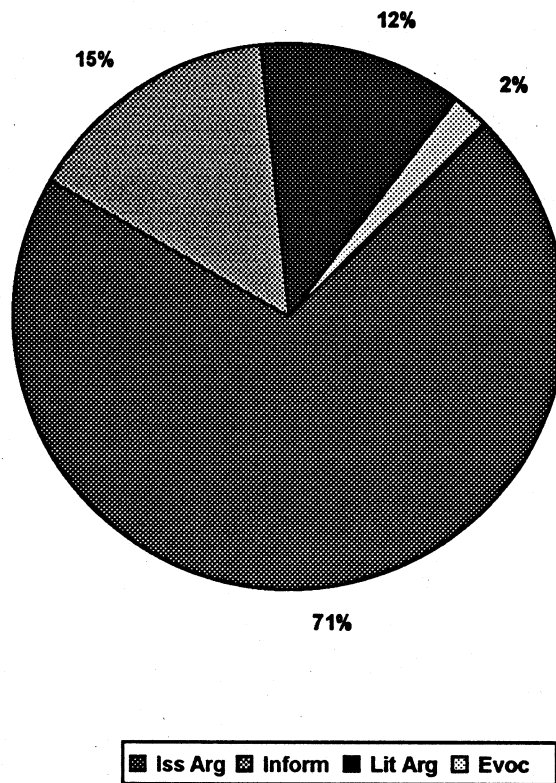
PAPERS

The eight history majors participating in the JSWS wrote 138 papers, the majority of which--70 percent--were written for history courses. Students also wrote papers for English, comparative literature, psychology, art history, Chicano studies, math, political science, music, and geology courses. Students averaged about 17 papers each, or eight per year. History majors are likely to have written even more than 17 papers, because one of the history majors switched to political science in his senior year and two students spent two quarters studying in Spain. The numbers do not reflect these variations.

Seventy-one percent of the papers history majors wrote were arguments about issues, events, or ideas, as Figure 15 shows. Fifteen percent were informative; 12 percent were literary arguments; and two percent were evocative.

History majors did none of their paper writing in groups.

Figure 15: Types of Papers Written by JSWS History Majors



STUDENTS' ASSESSMENT OF WRITING EXPERIENCE

More than half of the history majors in the JSWS said that their writing experience in the major was excellent or good. One student stated, "[It

was] excellent. You had to do a lot of writing, a lot of different types, and it taught you critical thinking." Three of those students specifically mentioned the history writing center as having been helpful.

Most of the history majors who mentioned concerns stated that they felt assignment expectations needed to be made more explicit. One student suggested that more rigorous demands at the freshman/sophomore level would help juniors come to the major better prepared to tackle the writing assignments.

SAMPLE PAPER ASSIGNMENTS

The following assignments represent a sampling paper topics students completed for history courses. We have not chosen to include these particular topics, because we think they are better than others; rather, we were aiming to provide readers inside and outside the major with a varied sample. Also, we have not included short writing assignments, those up to two pages long, in the list of paper topics. The descriptions that follow were collected during interviews. Though slightly edited in some cases, they are given as much as possible in the students' own words.

HISTORY 111. "They were both opinion papers. The one on Thucydides was on how prisoners of war were treated at the time, and what that says about the value of human life....The second one was about the time of Nero's reign and [the] state of the empire then. The author was kind of biased, so you had to take the facts he gave you and interpret them to make your own opinion."

HISTORY 112. "The first paper was to be descriptive, based on Ken Follett's novel. We picked a topic and wrote on what Follett said about it. Of course, it wasn't quite that straightforward; we had to infer and synthesize, figure out what was being said. I wrote on organizational hierarchy in 12th Century Benedictine monasteries. The second paper required us to research different historians on our topic and to write on whether Follett was accurate in his treatment. I chose to deal with five historians....I did feel that Follett was generally accurate in his [depiction] of the hierarchy, but I thought he should have included a few roles that weren't there or given more importance to some roles."

HISTORY 135. "For one, we had to do the impact of WWII on some aspect of American life. They just wanted [us] to use in-class readings and stuff you'd learned. For the other one, we had many options, but I picked to pretend I was a foreign affairs analyst during the Vietnam War. I argued why we should get out of Vietnam."

HISTORY 201, three versions. "The first paper was about European influences on the American Indians, partly based on the supplemental reading. The second paper was on Crane, Lincoln [and others in] a packet. We had to discuss the limitations of the sources, what each source could tell us. I basically drew on the fact that the historical evidence was viewed with the European biases....The third paper was basically taking all the journals and addressing the writers' views on the Civil War. What I said was that both the historian and the non-historian reveal personal and societal perspectives...."

"This [first] paper was on women's economic and family roles in the nineteenth century. I drew a comparison between Harriet Robinson and Priscilla Evans. These women both wrote articles about themselves. I compared and contrasted [their] lifestyles. I argued that women back then faced extraordinary hardships but that both became tough women in pioneer communities. The second paper was on the Spanish-American War-- what goals the U.S. had for the war with Spain....I argued that American expansionists had a desire to take Cuba in order to democratize the island and to enhance the U.S. economically. There were two routes you could go in this paper. The first one was if the motivation for the war was economic. I can't remember the second one, but I chose the first."

"We had to pick a relative and describe the social context within the period in which they lived--basically research a little bit on the period and come up with our ideas on how they experienced social change."

HISTORY 211. "I guess they were pretty similar. In the first one I wrote about specific changes into the goal of the ruler, what was expected of him, whether he was nice, why he fell. In the second one, it was about the entire system, how the system affected the ruler's downfall."

HISTORY 220. "The topic I chose was how I thought the Serbian/Bosnian crisis could be resolved. I needed to do outside research, used the *NY Times* quite a bit, and needed to first give a background before describing a solution. It was the best paper I've ever written, I think."

HISTORY 301. "We had to read a book about a typical colonist and his views about the war, and we'd compare what he said, what the popular opinion of the war was, and how we were taught in class. ...We were asked which opinion we sided with. I more or less went with the colonist, because it was a diary of his time during the war...."

HISTORY 302. "For the first paper, I wrote about Locke. I was covering the differences between the State of Nature and State of War in his theories. The second paper was on Rousseau, and the topic was discussing the sources and characters of corruption in his social criticism."

HISTORY 311, two versions. "From the three topics to write on, I chose the role of mathematics in ancient science. My thesis was that mathematics was the important tool in growth at the time. We were supposed to use the material from the books; we were structuring an argument based on the ideas of certain philosophers. For the second one, I chose to write about the problem the philosophers encountered when they chose to use Greek philosophy to support Christian theology. [I went] through the philosophical conflicts and concluded, based on the reading, that Aristotelian philosophy was very important for them."

"The first one [was on] Plato and Aristotle's natural philosophy-- compare and contrast. For the second one, he gave us a statement along the lines of in the late 14th to early 16th centuries, there was a rediscovery of Aristotelian material and whether or not it was harmful to the development of new knowledge. I argued that it was harmful because I think it limited the knowledge that came up. People who discovered things tended to put it in terms of how Aristotle thought, and it kind of slowed down progress, in my opinion."

HISTORY 312, two versions. "The first two papers were the same format: we had a choice of topics which all related to a short reading assignment--about 30-50 pages long. Papers were to be really structured. They were to be an analysis of the reading, making an argument point by point. For example, 'Why was Ann Hutchinson a threat to Puritan society, as Winthrop saw it?' We were to answer the question and make a judgment on whether Hutchinson was actually a threat. I did my second paper on a topic that involved reading travel diaries. We were asked to pick out themes of the American Revolution and evaluate the reliability of the source."

"There were three review questions that were to be 3-4 pages long, spaced out every three or four weeks. He'd ask a question that would include material [from lecture] from the previous three weeks, and we'd write on that. They were all history of science papers. For the first one, we discussed the scientific revolution, who was important, what ideas were important, and why they were important for science afterward. For the second one, we [compared and contrasted] the Enlightenment and the Romantic reactions. The third paper was about biology in the 19th century. I think he wanted to know if it could be defined by certain groups--embryology, for example--or if it was one big whole. The next one was strictly on a book we'd read. He wanted us to explain what the author's main point was and whether or not we agreed with it, tie it into the lecture. And the last one, which was an extra credit paper, [was about] how the scientific revolution influenced the Enlightenment of the 18th century."

HISTORY 315. "The five-page paper was a critical review of one of the five books, and we were to use at least three outside sources that criticized it. I was extremely critical...and disagreed with the stance that the author took. The 10-page paper was on any artifact of technology we wanted, and I picked biological warfare. I argued mostly that biological warfare should be outlawed, yet certain countries have continued to research it, and I gave evidence that [biological weapons are] leaking out of the factories where they are researching [them]. I followed the development of biological warfare up to the present."

HISTORY 345. "I wrote on kamikazes and whether that was just a form of warfare. We had 10 topics to pick from. I got all my theories from the book and then read biographies on kamikazes. I got facts on them and then wrote the paper; it was five pages."

HISTORY 369. "We have a research paper due at the end. It's about Britain's influence in Palestine, their motives. My thesis is that all their actions are ambivalent; they support both sides at different times. So all their actions are motivated by self-interest, what's convenient."

HISTORY 372. "The first paper was getting us to understand and recount the ideas behind women's history--why study [it]. We had to relate three articles we had read to each other; each article drew from the one that preceded it. The second paper was on our response to a question dealing with ante-bellum Black women, the subject of one of the course texts. It was basically summarizing the ideas in the book. The third paper drew from the two collections of articles and from the reading packet. It was based on a specific essay question [dealing] with women's organizations and clubs during the Progressive Era."

HISTORY 381. "First one: This was about a man, Nogerel, who was a Spaniard sent over to the new world to colonize. The whole book was arguing whether he was innocent or guilty. I argued that as far as the case of transatlantic bigamy was concerned, he was innocent. Second paper: We had to read letters from the Spanish Indies in the 16th C. In this one, I basically discussed how the compilation of letters showed the fundamental values of the people who emigrated from Spain in the 16th C. I said there were three values held by these emigrants: family, religion, and economic. Third paper: [The book it was about was] a bunch of essays, depicting the societies of cities embedded in the new world. We were supposed to read the essays and discuss the three that we found the most interesting, informative, and well-written and the three that we liked the least or found lacking in some way. So from what we had learned in lecture and stuff, I tried to find the ones that were well-written and that truly resembled what we had been taught were the way things were and the three that didn't."

HISTORY 383. "I wrote on the Mexican muralists. We could write on anything; it just had to be approved by him. It was a paper dealing with the Mexican Revolution, as evidenced by the muralists, but it dealt with Mexican problems in changing from a Spanish colony to coming to grips with the 20th Century and their attempts to organize a society."

HISTORY 390. "It's a paper/presentation. It will be background information on what my thesis paper for next year is going to be. Right now I am working on the influence of midwives on the medical profession in America from 1865-1915. It's very early in the composition stage. He wants us to get started now, so that when we come in fall quarter, we'll have a good idea of what we're doing."

HISTORY 410. "We all had to write on the same topics each time. For our last paper, we had to critique *The Odyssey*....I took how the gods treated the humans and wrote on that. She [also] gave us a paper on if we could go into the underworld, who would we talk to and what ancient mystery would we solve....Then we did a review of Homer's history. [We used] a book our professor wrote compiling a bunch of articles of opposing positions on ancient Greece, and we had to pick a position and support it [taking] evidence from *The Odyssey*. I argued how *The Iliad* and *The Odyssey* are just recreations of stories that have been passed down through generations. Like the Epic of Gilgamesh and stories from Egypt and Syria, there are a lot of similarities. For our fourth paper, we had to read a book on any subject we wanted to on ancient Greek history [and tell] how it related to the class...."

HISTORY 411. "It was on military discipline in the Civil War, based on the accounts of union and confederate soldiers. We had a couple options, and that was the one I picked. It was an analysis and comparison paper; I actually focused on the similarities, because, basically the types of discipline were the same, even though they experienced different intensities of it."

HISTORY 413. "It was optional; we could do this or the midterm. We could write on any topic. I wrote on the Roman Law as it pertained to slavery and reflected the earliest evidence of slavery in the Roman Empire, on up through the Julian emperors. It was actually on manumission, or the ability to get from slavery to citizenship."

HISTORY 422. "You had to go in and get his approval for the topic. It had to be relevant to the French Revolution, and it had to entail

research. Mine was on the absolute royalty of the Bourbons and Louis, who took France down the revolutionary toilet. I was making an argument that the French Revolution was not a spontaneous occurrence, the product of recent famines or financial difficulties in France, but it had been brewing for 128 years. It was served by the ongoing insensitivity of the Bourbon dynasty to the needs of the French people."

HISTORY 432. "We were to select a topic that we would be discussing in class and form an argument about it. I wrote on Hanford, because it had a big effect on the Northwest, and I am from that area. I argued that it was the best site [of the three considered] for the most part. It had some bad effects, and some things were not taken into consideration. I never brought up studies done on the effects on the river, and he pointed that out to me."

HISTORY 445. "The first paper was about Stalin's mistreatment of the Jews. I...exposed him in the paper for all the murders he committed and a lot of information that people wouldn't know unless they researched it. The other one--an extra credit paper--was about the ineffectiveness of Gorbachev...."

HISTORY 473. "We picked our own topics, and that's why he wanted a proposal and interview with us. He gave us a sheet of possible topics, and I picked the impact of music and motion pictures on the morale of Americans during World War II. The entertainment...helped boost the morale of the public and soldiers--helped relieve them of their anxieties on the home front, and it was a form of escapism. Entertainment helped sell war bonds, etc. It contributed a lot."

HISTORY 498, four versions. "We did one five-page paper. We read *People of Plenty* and wrote a historical review essay analyzing his book in the light of what has happened since he wrote it. I argued that [what he said about the American character] is pretty true, though I said he didn't pay enough attention to the non-affluent or poor people in our society. We have to do a 15-page paper yet; I haven't decided on what. We can do anything as long as it relates to consumer culture. It is a research paper--no guidelines yet."

"The assignment was to write on a topic of my own choosing about some aspect of France or French personalities between 1850 and 1940. You had to clear the subject with the professor. I picked Louis Napoleon. I wrote a paper about his foreign policy for History 423, and this one was about his domestic policy. I was attacking the vilification that Louis Napoleon had earned, because the liberals had been so much against him for taking away their second republic. According to French historians, he did everything wrong, and I was arguing that he was probably the most capicant Frenchman they'd ever had."

"The class was set up as a study of Gandhi and his life. I chose to write on Gandhi's movement and how he was a a big influence on people inside and outside India--like Martin Luther King. The paper was supposed to be 20-30 pages long."

"We have to write six three-page [arguments] on books we are assigned to read in class each week."

PSYCHOLOGY MAJORS

While psychology majors write about the same number of papers other majors write, they do very little writing in their major field.

PROJECTS

Regarding projects, most of the psychology majors had been involved in some kind of project, sometimes attached to a paper and sometimes not. The presentation attached to the writing assignment for Psychology 231 is an example:

PSYCHOLOGY 231. "The project involved collecting data, writing a research paper, and making a presentation to class. My group of four studied data on variation of the Stroop effect, [which] involves what happens when the brain doesn't work as fast as it otherwise would because of conflicting information from sensory and verbal data. My group made an oral presentation; it lasted 10 or 15 minutes."

Students majoring in psychology often enroll in Psychology 499, where they assist in departmental experiments and activities. For example:

PSYCHOLOGY 499. "We observed couples interacting and coded their behavior."

Psychology 499. "[This] was credit for serving as a TA with Psych 218, I was in charge of a quiz section that met weekly. I prepared explanations of ideas I thought students might have trouble with and illustrations of key concepts."

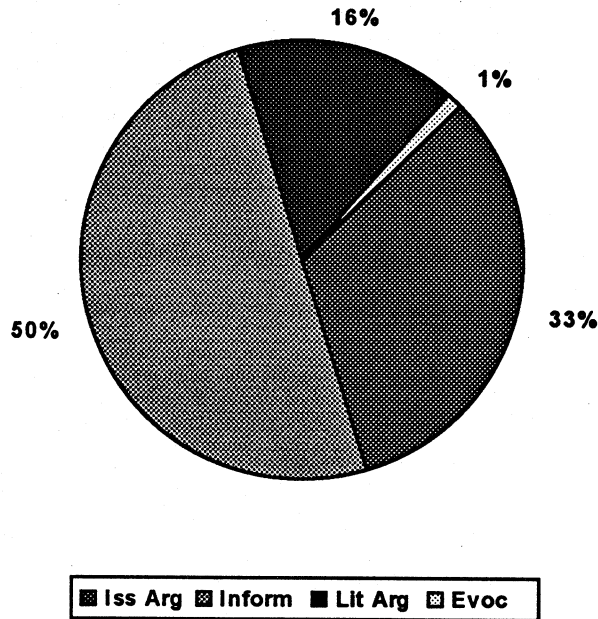
PAPERS

The 10 psych majors in our study sample wrote 138 papers over two years, or 13.8 papers each. However, only 38 percent of those papers were written for psychology courses. Sixty-two percent were written for courses other than psychology including music, genetics, dance, anthropology, sociology, and English courses. Students majoring in psychology averaged only 5.2 papers over two years in their major. This presents interesting problems for psychology majors, since, as the Freshman/Sophomore Writing Study showed, the psychology courses typically taken by UW freshmen and sophomores do not require papers either.

Figure 16 shows the types of papers psychology majors wrote during their junior and senior years. As the figure illustrates, half of the papers upperclassmen wrote were informative papers. One-third were arguments about issues, events, or ideas. Sixteen percent were literary arguments, written for English, comparative literature, and drama courses. Only one percent were evocative.

These numbers indicate that not only do psychology majors get little practice writing papers in their major, the papers they do write tend to emphasize mastery over inquiry. Even so, as the examples under "Samples" at the end of this section demonstrate, some of those informative papers demand that students demonstrate the processes used by writers in the field.

**Figure 16: Papers Written by JSWS
Psychology Majors**



STUDENTS' ASSESSMENT OF WRITING EXPERIENCE

Four of the 10 JSWS psychology majors felt that their writing experience in the major was good. Five others stated that they had not had to write much. One student said, "I don't feel like anyone has asked much of me as far as writing....I came here with a good grasp of writing, and I've learned information, but nothing about how to or how not to write a paper, other than APA format." Another student agreed: "I think that the psych department...should offer more classes that have writing involved in them. If you plan to go out in the field, writing according to psychology format is demanded, and the chance to learn that here has been minimal."

SAMPLE PAPER ASSIGNMENTS

The following assignments represent a sampling paper topics students completed for psychology courses. We have not chosen to include these particular topics, because we think they are better than others; rather, we were aiming to provide readers inside and outside the major with a varied sample. Also, we have not included short writing assignments, those up to two pages long, in the list of paper topics. The descriptions that follow were collected during interviews. Though

slightly edited in some cases, they are given as much as possible in the students' own words.

PSYCHOLOGY 101. "We are going to turn in the first paper next Monday. It is based on interviews that each student did on how people make judgments. The lecture yesterday was about six types of biases that people usually have. For the paper, we are supposed to pick two types of bias, describe them and how they occur, and give an example of a situation where the bias might occur. The interviews are supposed to be a test of the biases, and we are supposed to describe our interviews as a study and specify 'at least one confound' that we tried to avoid. Finally, we are to discuss why we have the biases we wrote about. The paper is to be 2-3 pages long, and it will not be graded, just given credit. We will have a second short assignment like this later in the quarter.

PSYCHOLOGY 209, two versions. "We had to pick two articles and compare them. We were identifying the variables in the experiments and the hypothesis, etc. There was a list of psychological abstracts from which we could choose the articles. They had to be dated after a certain year."

"We had to find three different articles from certain journals that dealt with our topic, our proposal. We had to research on a subject that we would like to do research on. We had to analyze those in one paragraph, say what was important about them, and then describe our study or experiment that we would like to do and how we would evaluate our research. I don't remember what I did mine on."

PSYCHOLOGY 231, two versions. "The first of these papers was due the seventh week. It was on a class experiment on the effects of priming on lexical decisions. The professor gave us probably half of what we needed to say in the paper, and he also gave us the APA format. We had an original hypothesis but mainly ignored that once we had our results, generating a new hypothesis that matched. Although we were given a lot of the material, we had to write our abstracts, introductions, and discussions on our own. I did this paper individually. The second paper was a group project. I wrote the discussion section, about 2 pages of an 11 page paper."

"We wrote three APA papers--reports on experiments. You had to write an abstract, an introduction, methods, results, and discussion sections. They were based on experiments done in class using human subjects and computers. We were analyzing the data, the way the experiments were run, and the ideology behind the experiments."

PSYCHOLOGY 232. "These were different parts of a research paper. One was an abstract; one was an intro; one was a methods section, etc. All were intended eventually to fit together. We wrote them about the study we were doing using rats. Besides these, there was a library assignment to introduce us to using journals. I had to critique an article. Also, we had to do a project proposal [for] our study."

PSYCHOLOGY 305. "This was an extra credit assignment. We had to select three to five articles from the psychology journals and have them approved by the professor. My articles were on negative cognition. You could pick any kind of disorder. My paper was about how [negative cognition] influence your daily life. I was presenting an argument and backing it up with empirical data from the studies."

PSYCHOLOGY 306, three versions. "We were to go to a public place and observe how far children would go away from their parents. We had to observe one crawling child, one unstable walker, one stable walker, and one extra one from one of the three groups. We made rough diagrams as we observed; I did my observing at Bellevue Square. The papers we wrote needed to describe the children we observed and attempt to draw some conclusions about what we saw. Most people concluded that younger children stayed closer to their parents, but that was not the case with those I observed."

"We had a list of topics we could choose from, and I chose how divorce affects children. We had to analyze or find three studies or observations from other magazines, and then summarize what they said. It was really lame. Each one was different [from the others]."

"We had to read a book from a list she gave us. We had to write what the book was about and how it was related to material we had been covering in class. I read *The Beet Queen*."

PSYCHOLOGY 350. "This paper was a literature review on the topic I chose--the basis for my senior project. The junior paper, reflecting the literature search I did over three quarters, reported the many studies that have been done on dominance in family relationships."

PSYCHOLOGY 410. "We were required to turn in up to 75 points' worth of papers. This could be done in two ways: you could turn in five 'briefs' for 15 points each, or you could do two 'briefs' and present posters/pamphlets and answer questions raised as posters were reviewed by class. I chose the second option. For the poster session, I chose the topic 'Do abused children become abusive parents?' I made a poster with six pages displaying key ideas. I also wrote a handout--a five-page, single-spaced summary of the literature relevant to my question. In general, the literature suggests that there is a strong relation between being abused and abusing, but it is not inevitable. For the 'briefs,' I did one on the long term consequences of parental divorce. The professor wanted us to get three or four articles and synthesize them to make a cohesive paper on the topic of the lecture, turning the paper in on the day of that lecture. If possible, we were to add a personal twist, include our opinions, if they were appropriate to our subject. My second 'brief' was on 'What is facilitated communication?' I had read a short blurb in a *Newsweek* article about autistic kids expressing their ideas by using a keyboard, with the help of an assistant. I researched this kind of training--both the merits and the questions being raised about the procedures. I ended my paper with my own opinion."

PSYCHOLOGY 418. "The first paper was a research proposal. You had to write the introduction and the methods section for a project. The second paper was the full working out of the research paper, which involved revising what had been done for the first paper and expanding it. We had to do a minimum of 30 hours of observation; we had to cite 10 primary articles; we had to write the results, discussion, and conclusion, and revise the introduction and methods sections we had done earlier. My study was on the black and white colobus (monkey). I looked at infants, concentrating on age and sex differences in play."

PSYCHOLOGY 436. "The assignment was optional. We were to pick a topic on sports and come up with a hypothesis, research the hypothesis, and

write the paper. It had to pertain to some kind of development of a system in sports. My hypothesis was that professional athletics existed in college. I interviewed football players and gymnasts. I was comparing a group that had professional career possibilities after college with one that did not. I wasn't able to finish it, but I am working on it this quarter. Now I am looking at whether getting a scholarship is a 'job.'

PSYCHOLOGY 462. "It was about metamemory and the elderly. It discussed reasons for the elderly's failing memory and the theory that it may not be their brains degenerating, but it may be the way that they were thinking about their memory that was deteriorating."

PSYCHOLOGY 467. "It was a research paper the whole class had to do with eyewitness memory. You could pick an aspect of eyewitness memory to cover in your paper. I looked at past experiments in memory deficits upon witnessing traumatic events. My spin-off was on a major theory by a certain researcher [who argues] that a witness will remember central details at the expense of peripheral details. What I wanted to say was that this was...true, but upon the introduction of a more complex stimuli, memory will suffer simply by nature of the design."

PSYCHOLOGY 499. "I was coding marital couples' verbal interaction on tape...noting if they were responding defensively or critically. I had to write a paper discussing some way that married couples solved problems--like humor. Then we had to find examples from at least two tapes, along with examples from a journal article we had gotten. I talked about marital dissatisfaction and the stages that there are. I discussed what stage each of the two couples were along the continuum."

PSYCHOLOGY 599. "I wanted to do a study, and since my field is sex therapy, I wanted to do something that was relevant today. So I chose to try and find out how much influence parents had on undergraduate condom use. I first wrote one paper that had all my theories, why I wanted to do the study, why I thought what I did, and then I went on from that paper to develop a questionnaire. I put it to the Human Subjects Review Committee, and they approved it. Since I haven't yet collected the data, I basically wrote up my introduction and my mini-definitions for each question on the questionnaire, my methods, gave an abstract in about four pages."

ENGINEERING MAJORS

PROJECTS

About a third of the courses the seven engineering majors in our study took required them to complete projects other than writing. These projects were often connected with paper assignments, and nearly all of them required students to present their research to the class. In addition, many students mentioned that both papers and presentations nearly always called for diagrams or drawings.

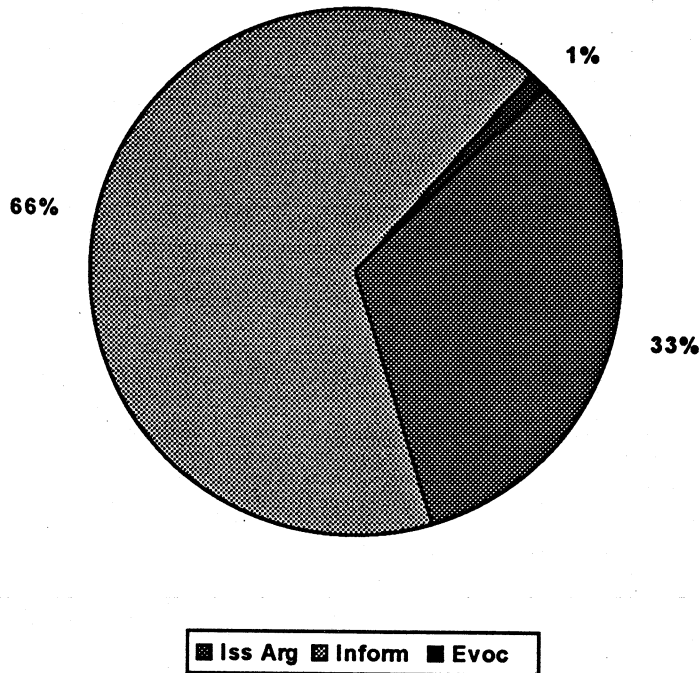
PAPERS

Engineering majors wrote a total of 81 papers, or 11.6 papers each. This averages to approximately two papers per quarter. Nearly all of those were written for engineering courses. Only 4 percent were written for courses outside engineering.

As Figure 17 shows, the majority of the papers engineering students wrote were informative papers. A third of them were arguments about issues, events, and ideas, and only one paper--written for Scandinavian 232--was evocative. At least one-third of the papers students wrote were written in groups. Engineering students sometimes experienced the same problems that business students raised concerning group work, as the following comment illustrates: "Mechanical Engineering 395 and 331 required presentations in front of the class with drawings, graphs, and overheads. They were done in groups, and I did the written part almost single-handedly."

However, engineering students did not complain as often about working in groups, we suspect because the projects were often so demanding they required participation of all group members for completion.

Figure 17: Types of Papers Written by JSWS Engineering Majors



STUDENTS' ASSESSMENT OF WRITING EXPERIENCE

Five of our seven engineering majors stated that they needed more writing or more writing instruction in their major. One student said, "I've never had any instruction about writing to speak of from a[n engineering] professor...Faculty seem to assume that we all have other people's lab reports to follow or that we already know how to do them, but that isn't true for everybody." Another student said,

...I feel that they look more at the information that you put into the paper than at the actual way you wrote it. I think some of the TAs...don't know what good writing is, essentially. They look just for if you said this, this, and this....just check it off as they go down the page. You could have just listed out your facts. That's okay for me, because it is easier, but I feel like I haven't been challenged to write a well-orchestrated paper.

A third student agreed: "It was possible to get through the entire program without being able to write."

While we can not generalize from our small sample to all engineering majors, these responses are interesting in light of the fact that engineering majors write nearly the same number of papers a year that business and psychology majors write. Yet, clearly the engineering majors in the JSWS felt as though writing demands were minimal, while English, history, and business majors, at least, did not. We believe the difference in assessment in these groups is the result of the types of papers engineering majors are asked to write--mostly informative, mostly lab reports, and often written with others. It is possible that these kinds of papers, as well as how they are traditionally evaluated, make JSWS engineering majors' writing experience less satisfactory than that of other majors.

SAMPLE PAPER ASSIGNMENTS

The following assignments represent a sampling of paper topics students completed for engineering courses. We have not chosen to include these particular topics, because we think they are better than others; rather, we were aiming to provide readers inside and outside the major with a varied sample. Also, we have not included short writing assignments, those up to two pages long, in the list of paper topics. The descriptions that follow were collected during interviews. Though slightly edited in some cases, they are given as much as possible in the students' own words.

CIVIL ENGINEERING 216. "These are lab reports of between 15-30 pages, all written by groups of five...who stay together all quarter. These require us to do a lab for an imaginary contractor and then submit our results to a controlling agency. They have to look like real results that we would submit if we were a consulting firm. They have to include a letter of transmittal, a title page, table of contents, exec summary, intro, survey plan, methods, data acquisition, results, problems, conclusion, personnel and equipment, and references used to do the

reports and appendices.. We are given a different survey technique problem every week."

CIVIL ENGINEERING 316. "These were lab reports. We had a prescribed format. The class was surveying in engineering, and we had a lab every week, in which we had to apply a surveying concept. The reports described the labs. The format was a general report format: intro, objectives, summary, results, analysis, and conclusions. We did these in groups, and we worked it out so that each of the group members did a particular section each week. I always did the same section; I wrote the introduction, objectives, cover letter, and title page."

CIVIL ENGINEERING 363. "The class was on material analysis, and we analyzed materials in the laboratory. The assignment was to convey information about the experiments/tests to a hypothetical customer, all in report form. It was pretty concrete what we had to do: one report about metals testing and a second where we designed our own concrete and analyzed it."

CIVIL ENGINEERING 381. "We had a design project that we had all quarter to work on. A group of seven students designed a pedestrian foot bridge over the Montlake cut. The goal was to use all the course concepts and to document the process and to recommend a design. I basically wrote the report, since I was the only person who felt comfortable writing it."

CIVIL ENGINEERING 499. "The class is on human-powered transportation, and the project is a study, a partner-project for a bicycle facility design for the 520 floating bridge. Today we went and visited the bridge and have submitted a preliminary report. [We] are still gathering information."

ENGINEERING 170. "The paper included an outline and a table of contents. The topic was micro gravity crystallization. It was a research report covering elementary crystal theory and a space-based state of crystal manufacturing. Also, the political atmosphere surrounding this topic was included."

ENGINEERING 260. "The paper covered the thermodynamics of the operation of the 'happy drinking bird,' including conceptual discussion, graphs, and illustrations. He wanted us to say if it was a perpetual motion machine, which is impossible. The pressure is changed by the design of the tube and so forth. It's a cycle....The driving force is evaporation."

ENGINEERING 331. "The first paper was shorter. It was a progress report, another hypothetical situation. We were given data and asked to relate it to a specific kind of customer. The longer paper, due at the end of the course, was a recommendation report, more formal than the first paper. The same hypothetical situation was used for both papers, but for the second, the project was further along and the audience was different."

MECHANICAL ENGINEERING 323. "The assignment was to design a Brayton cycle and it was more or less an assignment that gave you the fundamental design and you had to figure out what the efficiency was and how much it would cost to run it--kilowatt per hour type of thing. There was to be only one range of answers. The only correct answer would fall within the range, and that range was given out halfway

through the time we were allotted to solve the problem. I did find that people who went to the TA to get clarification about the problem tended to get lots of good help, and I should have done that."

MECHANICAL ENGINEERING 331. "The assignment was to design a heat exchanger, having certain specified features. The paper was prepared by a group of four. One of us would be running a program on one computer while another ran a program on another computer. Running programs to come up with data that allowed us to compare features and come up with the best choices is what took the most time."

MECHANICAL ENGINEERING 333. "We were given a problem and we arrived at necessary numbers by doing lab work. We worked out graphic displays, tables, and graphs to show number patterns, and wrote an explanation that covered several things, including why air flow patterns varied as air traveled through our experimental apparatus. The whole paper was 13 pages long; there were at least eight pages of tables and graphs."

MECHANICAL ENGINEERING 343. "These are all lab reports. The first involved figuring out the stresses at different points on a beam. The second also involved stress measurement, this time pulling on a piece of metal until it broke. The third involved torque--stress created by twisting a piece of metal."

MECHANICAL ENGINEERING 469. There is one design project; it will probably be about four pages long. We just got the assignment. In groups, we have to develop a concept and build a model of a science-oriented novelty item, a toy of some kind. Then we have to write a paper explaining our design and present it to the class."

MECHANICAL ENGINEERING 373. "It was a report on the progress of a computer project to write a program that dealt with the response of mechanical and electrical systems to constant input."

MECHANICAL ENGINEERING 374. "These are all lab reports, and they include a lot of graphs and tables. (I had never done lab writeups before.) The first lab was on the lab equipment used to study electrical circuits; the second was on filters--made of resistors and capacitors--used in electrical circuits; and the third was on the damping effect of second-order systems. I am not an electrical engineer; to me these labs were mathematics. The reports include discussions--why my values were off."

MECHANICAL ENGINEERING 395, two versions. "These were actually group project reports that I happened to do all the writing for, about 10 pages each. The first one was to invent a merry-go-round, and I took the standard engineering approach to solving my part of the problem. Then I gathered everyone else's solutions and explained them all, including my own. The second project was for a rubber-band powered car, to be entered in a competition. The assignment was to do a good design job on the car. We developed a car, and, as writer, I documented that development. These were the same thing--more exercises in learning how to work in groups than focusing on writing involved."

"The first project was 1-2 pages; the second and third were 10 pages or more. The first project was to design a helmet with a light that would fit into a cereal box...[in order to] make it possible for kids to eat sugary cereal under the covers in bed at night. We actually built our designs. Projects two and three were [done] in groups. The second was to redesign a pogo stick to make it more appealing and useful to a wider

range of people. The third was to design, build, and race a rubberband-powered car. My group was really concerned about the paper and put more into that than into [making] the car itself. Our car got limited testing, and it came in last. But the paper WAS more important."

MECHANICAL ENGINEERING 430. "It was a descriptive paper that attempted to show the professor that our redesign of a house would work. The course was on thermal environment, and the project required us to design or redesign a house to be as energy-efficient as possible. You got house plans from wherever you could find them. We ran simulations and from the results, we showed which option was the best."

MECHANICAL ENGINEERING 434. "There will be three lab write-ups. I have already turned one in. It is on holographic imaging to measure deflection in a small beam when a small force is applied. The second lab...is based on recording noise levels on Stevens Way. Each lab write-up will probably be about five pages. They are really big on graphics, and they want them integrated in the writing that explains them."

THE FIVE MAJORS

Table 4 provides a comparative look at the papers required by the five majors. Combined with students' descriptions of assignments, the table demonstrates that students' writing experience at the UW is shaped completely by their majors.

Business majors, for example, write papers that are designed to teach them the writing purposes and conventions, as well as the team-orientation, that they will find when they begin working in the business world. Sometimes, however, group paper topics fail to give students equal opportunities for critical thinking, research, and analysis.

English majors, on the other hand, get a great deal of individual practice in analytical writing--at least in analysis of literature. Also, the types of papers English majors write match the types of papers high school seniors write more closely than do the types of papers assigned in the other majors (see Figure 6). Therefore, we can expect that English majors might have an easier time handling writing demands than other majors, say, in history or sociology.

In direct contrast with students' senior year high school writing experience, history majors will have written many arguments about issues, events, and ideas, nearly all of them requiring research, by the time they graduate. That means that these students will have had to read critically, formulate theses, and use evidence effectively to make arguments in this discipline.

On the other hand, psychology students will have had a different kind of experience. They will have written very little in their major, and the writing they will have done is likely to be informative writing. If we assume that writing is a mode of learning, as research on the composing process suggests, and that writing is related to students' engagement with their classes, as the Harvard study indicates, then the Psychology Department might want to integrate more writing, specifically more inquiry-oriented writing, into the psychology courses majors take.

TABLE 4: SUMMARY OF PAPERS WRITTEN BY JSWS MAJORS IN FIVE DISCIPLINES

	Number of Papers	Percent Written for Major	Percent Argument about Issues/ Events/ Ideas	Percent Informative	Percent Literary Argument	Percent Evocative
Business	12.7	90	56	40	3	1
English	16	75	24	12	45	19
History	17	70	71	15	12	2
Psych	13.8	38	33	50	16	1
Engin	11.6	96	33	66	0	1

Engineers, too, will have done mostly informative writing, but nearly all of that will be for courses in their majors. That means that the writing these majors do will teach them something about the major; in writing these papers students will be expected to gather information and then inform others about what they have learned. While the ability to communicate information is important for graduating engineers, the engineering departments may want to think about building argumentative assignments into their courses as a way to foster critical thinking skills valuable to engineers on-the-job.

It seems clear from the paper topics in all five majors that professors nearly always give careful thought to the kinds of thinking and writing they want their students to do. But students' perceptions in all disciplines indicate that they would like this thinking to be made more explicit. When students ask us what we expect from a writing assignment or what we "want" them to do, we need to remember that they are asking because they do not know, not because they are trying to find an easy way to the A. No matter what the major, our purposes are not transparent to students, and neither are our expectations. Often, when we devise a writing assignment, we are asking them to write a kind of paper they have had little experience with writing--neither as high school students nor as freshmen and sophomores. We need to teach them, then, how to write those papers as we teach them what it means to be a major in our own fields.

CONCLUSIONS

From the data gathered during students' interviews, we can draw the following conclusions:

1. Students' interest in the major they eventually select predates their arrival on campus.
2. Most students who take longer than four years to graduate do so because of demands beyond the UW's control--such as, students' need to work to provide financial support for college, parental illness, or travels abroad.
3. While most students are employed during their junior and senior years, most do not believe that employment interferes with their academic performance.
4. Students can be expected to write about 14 papers in 43 percent of the courses they take in their junior and senior years, in comparison with about 13 papers in 28 percent of the courses they take as freshmen and sophomores. This means that when the average UW student graduates, she will have written 27 papers in 13 courses, 36 percent of the total number of courses she can be expected to take as a UW student. She will not have written papers, therefore, in approximately 64 percent of her UW classes.
5. Most of the papers students write as majors are arguments about issues, events, or ideas (43 percent) or informative papers (38 percent). The number of informative papers students write increases steadily from the third quarter of the freshman year to the senior year. Only 14 percent of the papers assigned are literary arguments, compared with 24 percent of the papers students write as freshman and sophomores and 46 percent of the papers students write as seniors in high school.
6. Based on the five majors examined, the types of papers juniors and seniors write and the writing experience that they have are shaped extensively by the students' majors, with the exception of psychology. Writing practices and demands from students' senior year in high school through their senior year in college are only consistent in the English major. All other majors require kinds of writing that students have almost no experience with as seniors in high school and little experience with as freshmen and sophomores.
7. Students (84 percent) feel that they learn the most about writing from courses in their majors. Indeed, we see clear evidence that as students move through their majors, they begin to identify "good writing" and themselves as competent writers with writing practices in those majors. This is not surprising considering results discussed in item six, above.
8. Because of the percentage of the students' grades they represent and also because of the way they are usually evaluated, short pieces of writing appear to students to be relatively unimportant, and, as a consequence, students tend to devote little time to them.
9. As they are currently designed and especially in business, group writing projects demand different skills and offer different opportunities to each member of the group. They do not give each member

equal practice in research, analysis, or argumentation, for example. Often, some members of the group do no writing at all when they are working with a group of other students on a writing project. Students who participate in many group writing projects often develop their own "specialties"--writing the background section, for instance, or doing the oral presentations for every paper they work on with others. Furthermore, there are currently no means of measuring these differences in experience and no consequences for students who do not participate equally with their peers.

RECOMMENDATIONS

1. UW students can expect to write papers in only 36 percent of the courses they take here. Because of the connections paper writing has with student engagement in course material and with students' learning, and because students, themselves, believe that they need to write more than they are doing at present if they are to become better writers, the UW needs to work to increase the number of courses that assign papers to undergraduates. Students need to write more papers at every level, but particularly at the freshman and sophomore levels. The UW should set a goal to have students writing papers in at least half of their courses by 1996 and in at least 75 percent of their courses by the year 2000.

2. Furthermore, faculty should assign argumentative or analytical papers, rather than or in addition to informative papers. Only inquiry-based papers, such as arguments, demand that students use the critical thinking skills all UW graduates will need as they move into the working world or on to graduate school.

3. There are two gaps in students writing experience. The first is between high school and freshman writing; the second is between the writing students do in their first two years of college and the writing they do as majors. To help close these gaps, professors assigning papers need to give students explicit instruction regarding the writing demands of particular assignments and explanations about how those demands fit with the writing purposes, practices, and conventions in the major. There is a close link between methodology in a field and the writing practices in the field, and professors need to make that connection clear to students.

In addition, the University should engage in writing liaison work with area high schools, perhaps providing them with sample freshmen portfolios, so that high school teachers and counselors can give seniors actual examples of what to expect writing demands to be at the UW.

4. Group writing projects need to be so difficult that no one person could do the research, analysis, and argumentation any project requires by himself. Professors who assign group projects need to understand that the consequences for participation and non-participation in group projects in the college classroom differ radically from the consequences for participation or non-participation on the job. Therefore, professors assigning group projects need to monitor the participation of group members closely. Such monitoring will allow professors both to assess individual student performance and to evaluate the difficulty of the writing project itself.

5. While many JSWS students (38 percent) were happy with their writing experience as majors, just as many (38) believed that they should do more writing and that assignments should be more challenging. A third of the students in the Freshman/Sophomore Writing Study felt the same way, as did seniors surveyed in Gerald Gillmore's "1992 Survey of University of Washington Seniors." Because of these results, we urge all departments and faculty to make writing and writing instruction their first priority in the next years and to work together across the curriculum and separately in our own classrooms to provide UW students with rich writing experiences shaped by the clearly communicated contexts of our disciplines.

