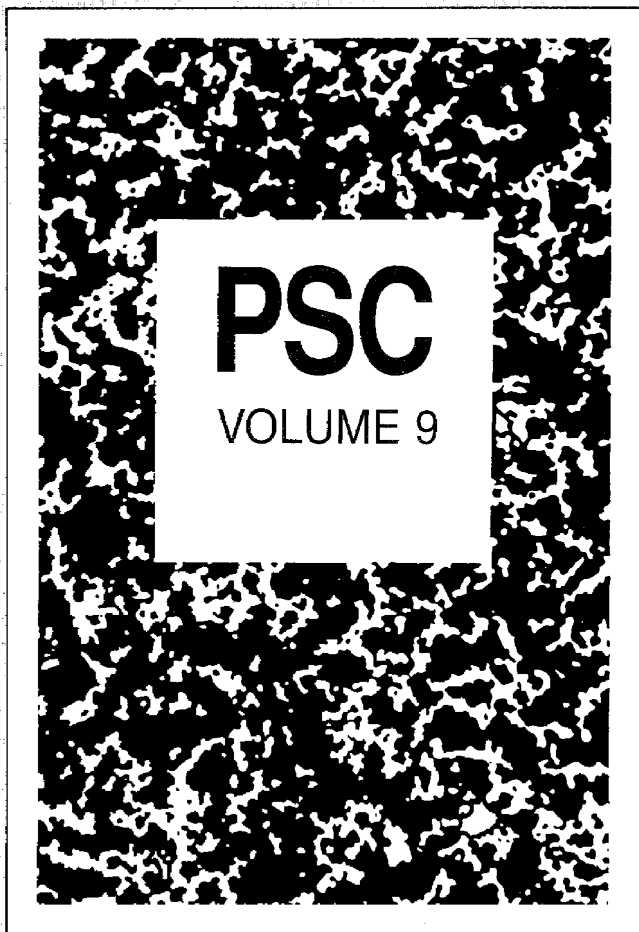
writing across the CURRICULUM



Plymouth State College Journal on Writing Across the Curriculum

Volume 9

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Editor's Introduction

One afternoon in the College Writing Center, Michelle Fistek, the Coordinator of the WAC Task Force, suggested we ask a couple of departments to write *Out Of WAC Newsletter* articles about some of the writing being assigned in their departments to teach their disciplines. That idea quickly expanded to the idea of asking every department to write such an article and collecting them all in this journal. The *WAC Journal* Editorial Board discussed the idea, heartily endorsed it, and began approaching potential authors in every department.

This volume is by no means an exhaustive collection of all writing being assigned at PSC, but rather a department-by-department report of some of the ways writing is currently used. By reading this journal you will get a sense of the discipline-specific use of Writing Across the Curriculum in each of the thirteen departments at PSC, as well as many concrete, practical writing assignment ideas that you could adapt for use in your courses, no matter what your discipline.

Finally, if you are already assigning writing in your courses and have ever known a moment of anguish while contemplating evidence that your students might, as yet, lack sufficient experience writing, we trust you'll find in the following articles an accumulation of across-the-curriculum support and appreciation of your efforts.

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Writing in Psychology Courses

David Zehr

In the summer of 1986 Toby Fulwiler made his first presentation to PSC faculty about that era's higher education catch-phrase, "writing across the curriculum." Unlike other such expressions that grab their fifteen minutes of fame and then disappear, thankfully, into the netherworld of intellectually bankrupt jargon, there was something different about WAC: it made sense. My memory for that time may be less clear twelve years later, but I do believe that pre-WAC, many of us were still locked into the attitude that one assigned writing for limited purposes. Students wrote term papers that usually entailed some sort of library research and faculty corrected them, usually focusing on content and mechanics. Toby's presentation helped change that attitude by articulating and reinforcing the idea that academic writing serves multiple purposes. It is indeed a wonderful tool for learning a subject matter and mechanics, but in addition, it is also a tool that allows, students to go beyond what they expect a professor wants them to say; it is a tool that helps them learn to think on their own.

Several Psychology faculty participated in that first WAC workshop and many others have since participated in later ones put on by PSC faculty and staff. Not surprisingly then, WAC techniques are evident in all levels of the psychology curriculum, from large introductory survey courses to advanced senior seminars. Below is a sampling of techniques provided by my colleagues. Collectively, these techniques illuminate the resourcefulness and creativity of individuals who value the power of writing

to help students better understand what a higher education is really supposed to be about,

Using Writing in Introductory Psychology

PS201, Introduction to General Psychology, is an SP perspective for the college's general education program. Since all general education courses are expected to have a writing component, it is not surprising to see that psychology faculty have developed a variety of strategies that meet this extraordinarily important objective.

a. <u>Using writing to expose students to current research</u>. One faculty member assigns students readings from *Current Directions in Psychological Science,* a journal that publishes cutting edge research reports. A nice feature of this journal is that the articles are usually short and written in a nontechnical manner. Therefore, even though the journal is of great value to professional psychologists, its contents are also highly accessible to students getting their first taste of the discipline. Students select articles to read from the journal and then write brief reports. The professor provides several general questions to guide their responses. The articles typically coincide with topics covered in lecture and the regular textbook.

This assignment works well for several reasons. First, it exposes students to original source materials in psychology. Second, it reinforces the principle that our knowledge of human behavior is not fixed, but ever-changing. This is a very important lesson, particularly for those who will not go beyond the introductory level in psychology. Last, the writing assignments are not graded with a traditional letter grade. Instead, a check, check-, no credit system is employed. Dissociating grades from writing in this manner shifts a student's focus from the evaluation of the writing process to linking ideas in the article with other course materials.

b. <u>Using writing to enhance critical thinking</u>. Another member of

the department assigns a series of thought-provokers to students. These are exercises which require students to apply what they have learned in class to new information. For example, students might be asked to find an article about behavior in a popular medium and then critique it using critical thinking skills. Or, students might read an instructor-generated vignette about a behavioral problem and then use their knowledge of psychology to solve it. These assignments are graded on a pass/fail basis, and so again emphasize writing as a thinking tool as opposed to a means of formally presenting information.

A second example of using writing to teach critical thinking are some techniques I use in my introductory psychology course when covering research methods. Over the years I've used a variety of writing exercises not typically encountered in a beginning psychology course. Students have written one-act plays, short stories, and Dear Abby-like advice columns for a fictitious campus newspaper. Since details of those assignments are found in earlier editions of the *Writing Across the Curriculum Journal,* I won't elaborate further. I believe it's enough to say that the assignments are designed to use creative writing techniques to teach material that students usually find both difficult and dry.

c, Using writing to teach content. Using writing to teach critical thinking skills is, obviously, only one purpose of a writing assignment. Writing assignments can also be used to enhance students' understanding of basic psychological concepts. For instance, in one section of introductory psychology students write short papers on topics from the text and lecture. An illustration of this approach is drawn from a unit on psychopathology. Students are asked to select a psychological disorder they'd like to know more about. They write a paper on the disorder that includes information on symptoms/diagnostic criteria, etiology, and treatment. Written responses help students integrate and apply what they've learned from class. The instructor also uses the written responses as a stimulus for class discussions.

Writing in Other Psychology Courses

a. *Prenatal and Infant Development*

The instructor of *Prenatal and Infant Development* uses writing to expose students to materials not covered in the text. After hearing a lecture on a "special topic," students write brief summaries as a check on their comprehension of the material.

This course includes a service-learning component. Students are required to keep a journal of their service-learning experiences. The journal allows students to relate their service-learning experiences to issues presented in class. It is also a vehicle for students' personal reflections on the experiences.

Teaching [illegible] in Experimental Psych[illegible]ogy

All psychology majors are required to complete a year-long sequence in research methodology and statistics. By the end of a student's second semester in the sequence, they should have all of the requisite skills needed for conducting an independent research project, which they are indeed required to do. This includes preparing a literature review, designing the study, data collection and analysis, and a final research report written according to the stylistic guidelines of the American Psychological Association. Not all instructors get students to a final draft of a scientific research report using the exact same methods, but all do use at least one common strategy—the writing of multiple drafts. Only a naive and unsuccessful student (or researcher for that matter) believes that a first draft of a research report is good enough to be a final draft. Students in Experimental Psychology learn quickly that revision is the key to successful writing. Revision is guided and encouraged through peer review, professor-student conferences, and meetings with the staff of the College Writing Center.

contemporary research and theory in historical perspective; the present is eminently more comprehensible when viewed within a larger context of what has come before. Because this course integrates historical information with content from other psychology courses, writing is used as a means of encouraging students to view history as more than a collection of names and dates. In one section of the course the instructor has students write weekly papers based on lecture and assigned readings. Responses to these questions must reflect a student's own ideas and supporting documentation. Simply repeating ideas from the text or lecture is a sure-fire way to earn a low grade. The weekly assignments are augmented by more comprehensive writing assignments, the nature of which varies from semester to semester. Once, students wrote biographies and professional genealogies of Psychology Department faculty. Another time, students role-played being members of an historical figure's research team. They were required to design and conduct an original experiment reflecting their mentor's influence and present the results in a formal report. No matter what the specific nature of the assignment, the overall goal is the same—to actively involve students with psychology's history.

e. Psychology Seminar

All majors are required to complete an advanced seminar as a capstone experience. Since seminars rely extensively on discussion and individual or group presentations, students need to come to class fully prepared to offer their own unique ideas, opinions, and insights. To prepare students for this, one instructor requires extensive readings of original source materials and emphasizes the need for students to go beyond merely summarizing what they've read. Specifically, students are expected to write a formal review of the literature for a topic that relates to both the seminar's theme and a student's particular interests. Adherence to APA writing guidelines is required. A second faculty member who has taught the seminar uses writing to achieve the same overarching goals mentioned above, but does so using what he calls the HTS

method. Students read original published research reports. This exposes them to the content that is crucial for establishing a working knowledge base of the material. Beyond that, however, for each article they must also engage in Hypothesis generation (What new questions/testable hypotheses are raised by the research?), Theory integration (Can a theory be generalized to a new context or compared to a competing theory?), and Substantive critique (What are the strengths and weaknesses of a study/ what might have been done differently?).

f. Integrative Courses

Several psychology faculty teach Integrative courses for the General Education program. As one would expect, writing plays a seminal role in student learning. For instance, in *Lifecycle in Film* students write papers integrating course materials, e.g., theories of moral development, with film analysis. The instructor provides a question sheet for each film that guides student viewing. Student responses to the questions form the basis for both class discussions and a more formal writing assignment. In *Psychology and Literature* students read great works of literature and analyze the plot and characters using influential psychological theories. One recent writing assignment used in this class as a final exam had students write a two-part paper. First, the students wrote a short story. Then they wrote a critical essay (similar to others they had written about literature assigned) which analyzed a character in the story using the perspective and terminology from one of the psychological theories presented in class. Both instructors also completed this assignment and shared their papers with the students at the final class meeting.

Summary

The above is just a limited sampling of the ways in which psychology faculty use writing to enhance student learning. A great deal has been omitted out of necessity, for a comprehensive overview would have left little room for discussion of writing in

other disciplines in this volume. It should be obvious, though, that students benefit tremendously from the variety of writing exercises to which they are exposed. Psychology faculty are genuinely committed to using writing as a tool for teaching students about how psychology is done; they are also committed to using it as a tool to enhance students' perceptions of themselves as independent thinkers from whom we all have much to learn.

How Do HPER Majors Learn to Write?

Linda Levy

Within the Department of Health, Physical Education and Recreation, writing becomes the tool that is used to learn about writing. Learning to write and learning to write in a particular discipline are both easy and hard to separate, At times, faculty members choose to teach their students how to write. More often, however, I find our faculty use various methods of writing to encourage the students to learn about writing while they learn about the discipline.

As I examine the choices my colleagues make in their writing assignments, patterns develop. I find that no matter which type of writing the faculty assigns, free writes, peer edits, journals, article critiques, or research projects, the outcome for each student is the same. The goal is to encourage each student's writing potential to grow by practicing writing.

One of the ways we assist our students to become better writers is by the use of portfolios. Our physical education faculty have joined together to utilize class assignments as a means for students to gather data in a more meaningful way. Each assignment that the students are given as they proceed through their core requirements, has a purpose, The courses students take during their first two years have assignments emphasizing the physically educated person. During the last two years, the assignments are geared toward preparing the students to become professional

physical educators. Each writing assignment is therefore to be included in the student's portfolio. As the portfolio takes shape, the students have a collection of their work that represents what they have learned and what they can do. The portfolio is said to be complete when the student writes "explanarians" that precedes each portfolio entry. These explanarians provide details as to why the particular entry was included in the portfolio. This is the final step connecting the learning process with the content, and with the other subjects in the HPER discipline.

To best describe how we teach writing or how writing is used to teach how to write, I will provide some examples of writing assignments from some of our HPER faculty. Each example includes either the discipline or the class from which the assignment comes.

In Physical Education pedagogy, for example, a variety of writing styles are employed. Free writes, peer edits, and double entry "journaling" are used to teach writing by encouraging the expression of ideas.

As the student is asked to do a free write, the emphasis is to reflect on the topic of the day. The writing is collected, the instructor comments on the content, then returns the free write to the student. The student is then instructed to use the free write as if it were the first draft of a paper that will be collected again. By having the opportunity to simply write, the student can generate ideas related to pedagogy. They do not have to worry about being graded. The pressure is off. The idea of using the language becomes the focus of the exercise. Their anxiety of what to write is diminished. Later, the student uses the information in subsequent drafts to polish his or her work, to fix the grammar and sentence construction.

Peer edits are used in almost the opposite way. The student writes a paper trying to include all necessary content. A peer edit system is employed to try to find errors related to sentence flow, sentence construction, spelling, and grammar. In this case the student editors are also graded on their ability to review their

peer's work. The instructor collects another draft, looking for content. Finally, the student is given the opportunity to review all edits, incorporating all suggestions into the final format.

Double entry journaling is another way to encourage the expression of ideas by first requiring a factual, logical explanation of some topic related to the content. The student is instructed to not look at that assignment again for two (2) days. When the student is allowed to return to the original work, he or she rereads what was written, and then thinks, analyzes, make judgments, and finds a point of view about what was written. The goal now is to react to the original writing. This assignment focuses more on writing about how the idea is expressed or, as the instructor puts it, "the emotion of writing."

Another content based class takes journal writing in a different direction. This assignment comes from an Applied Nutrition course. For this assignment, the students keep a nutrition and activity log. They record everything they eat and everything they do. Using computer software, they calculate the nutritional content of the foods they eat as well as their caloric expenditure from their activities. For each entry, they write about their feelings and attitudes about their intake versus output, including any stressors that they may have had during their mini-study. When their log is complete, the journal writing becomes essay writing. The students are asked to discuss their overall nutritional condition in a more formal structure. They need to include an introduction, a body and a conclusion.

Following this assignment the instructor requires a Personal Program Plan. The student takes the data gathered from the nutrition and activity log, analyzes the information, and writes a plan of action for him or herself. This assignment includes goal writing as well as assessment procedures. The emphasis now is on writing mechanics. The purpose of this assignment is to prepare students to apply nutritional information in a workplace that may include students, adults and seniors.

One of the core requirements in Physical Education is a "Q"

course, Evaluation of Physical Education. In this course the student collects data related to performance or health and fitness. After learning how to statistically analyze the data which they have collected, they are required to explain and interpret their results in writing. The paper requires an Introduction, and Methods, Results, Discussion, and Conclusion sections. This is where the student's understanding of data analysis becomes evident. They are able to prove comprehension through writing.

The "W" course our Physical Education majors take is called Motor Development. One of the assignments for this class is a 15 minute, in-class, writing piece that encourages the student to write under pressure. The student has to write a synopsis of a chapter from the text which must begin with a strong introductory sentence and contain a conclusion. While the student knows the assignment and can, therefore, prepare ahead of time, no outlines are permitted in class. The goal is to be able to write informatively, and with good grammar and sentence construction within a time limit. The instructor meets two (2) goals along the way: the students are prepared for class, and they learn to write.

Our Health Education majors are given a number of different types of writing assignments in their classes. Journaling is often used to practice writing. Again, the thought here is that as the student writes, he or she becomes a better writer.

Unlike some faculty members however, one of our Health Educators does not collect these journal writings. Stress Management is the "W" course for our Health Education Majors. While journal writing for this class is used to assess attendance, the main purpose of these assignments is for the student to reflect on their own stressors. The student is asked to utilize the lesson of that particular class to identify their stressors, to analyze some stress management technique, or to ponder the theoretical basis of stress. Journal entries are then written to encourage the student to react to these lessons. The writing portion of the journal is not only therapeutic but also educational. The students learn to write by writing.

For other assignments, this particular faculty member requires her students to be more specific as they complete their assignments. She teaches her students to write objectives and lesson plans. These tasks are included in projects that students complete for the class, and can also be used once the students begin to work in their fields. The focus of this program planning assignment is to give the student the chance to make logical connections between the content and its application. They choose or are assigned a topic, gather data, and plan how the information could be presented to a group of people. The students then present their lessons. Following each of these types of assignments, the student is asked to write a critique. This reevaluation process allows reflection, analysis and reaction. This writing teaches students how their focused use of language can be helpful in exploring their discipline.

Another member of our Health Education faculty uses prose writing to teach students to write. In their Mental Health Issues class, the students learn about particular topics through class lectures and by critiquing articles and reviewing literature. Students gather information and write by story telling. They put their thoughts on paper as if the information were to be included in a story book. They not only are able to synthesize information, but they become adept at relaying that information in an understandable and professional manner.

The Health Education majors in the Wellness Management option learn business writing. Their option prepares them to work as health care administrators, managers, or perhaps, wellness instructors. They are asked to organize, produce, and present to the class proposals, grants, pamphlets, and newsletters related to various health issues that will professionally prepare them for these potential careers.

Our athletic training faculty often assign writing that combines information learned in the many classes specific to that discipline. One example is the rehabilitation project, taken from a junior level Rehabilitation of Athletic Injuries course. This semester-

long, work-in-progress uses material students learn in classes during their freshman and sophomore years, and combines it with new information learned throughout this course. The assignment is to write about a particular injury from the time it happens through the rehabilitation process. While the student is required to review former texts in addition to current pieces of literature, the emphasis is on writing in more simplistic terms. This time, the students are asked to write using language that they themselves can understand, minimizing the more formal writing that usually is the result of research. As each portion of the project is written, it is collected and commented on for content. The student rewrites and resubmits the project three (3) times during the process. Finally, the student presents the work to the rest of the class who offer comments of their own that often help the writer understand areas of weakness. The final product is often a piece of work that students can use as they become professionals in the rehabilitation field. The goal in this type of assignment is to provide a means for the student to become comfortable with, and therefore use, the language of that particular discipline.

Another type of writing that our students learn is scientific writing. These assignments are used throughout the curriculum in classes where more research-based topics are studied. The examples of assignments that follow help to enhance the students understanding of the science behind our discipline.

In one particular health class, the student is given a model of a professionally written article from a health journal. The students in the class are taught how to write as if they are going to be published. They learn what each part of the article includes and why the language is used the way it is used. Their assignment is to write an article similar to the model. They are given rules to follow and deadlines to meet. They learn to write by following the model. The faculty member who teaches this class is quick to point out that while the student is not required to hand in a draft of what they have written, she willingly accepts first drafts if the student has completed the assignment prior to its due date.

A faculty member who teaches an upper division exercise science class assigns a similar project. The student is asked to gather data and write a technical paper. The student must define all terms, analyze the data, and provide conclusions. A handout is supplied to the student to use as a guideline for this type of writing. Again, the student is encouraged to complete the paper early enough for the instructor to provide feedback in the form of editing. The goal of this assignment is to prepare the student to write work that can be published.

Our athletic training students are also given this opportunity. Very early on in their curriculum, they are taught how to read scientific articles. During their first year, they are asked to write a research paper on ergogenic aids. During their sophomore year, the students are given an assignment to summarize and critique 10-15 original research articles on a topic, that they choose, related to injury assessment. They submit their drafts twice for peer review and twice to the instructor. The goal here is for the student to draw some conclusion based on the literature review. By their junior year, they are asked to interpret data from a research article and present that information to their classmates. In addition, the students prepare an abstract and present it to the class as if it were a "Free Communication" session at a professional conference. Each of these writing assignments is intended to stimulate an interest in scientific writing.

Of the many writing assignments given to our Recreation majors, the one completed by our interns is the most interesting. These students compile a portfolio describing their internship experience. As the instructor says, "they keep a paper trail." Included in the student's portfolio is their vita, all formal letters between them and the agency, a daily log, and a detailed program or some recommendation for improvement that the agency would be able to implement. The students' daily log, however, is what truly connects them to their major. They are given the task of not only writing what they do each day, but also writing about their feelings and emotions surrounding their tasks. This reflection

piece is intended to help students identify their strengths and weaknesses, likes and dislikes, and their effect on people and places.

None of these writing assignments actually teach our students to write, yet all of them teach the student something about writing. Writing is encouraged everywhere in our curriculum. Through the process of writing in journals, producing essays or stories, free writing that becomes a first draft, program planning, or writing technically, each of our HPER students learn to express ideas. It is that expression of ideas that allows our students to become more comfortable with writing, which, in turn, encourages them to write.

Better Teaching through Better Writing: Student Writing in the Education Department

Gerard Buteau and Patricia Cantor

Good teachers are effective communicators, and one of the ways in which teachers communicate with their students is through writing. What teachers write is often read not only by their students, but by colleagues, community members, and the parents of the students. In short, what we write and how we write it does make a difference.

Over the years the Education Department has worked diligently to stress the importance of clear and thoughtful writing. One of the ways the department emphasizes the importance of writing is by administering a Writing Assessment to all of its first-year Childhood Studies and Early Childhood Studies majors and to transfer students. The assessment involves the drafting and composing of an essay on an assigned topic during a one-hour period. Its purpose is to assess the quality of students' writing as well as provide specific feedback on writing strengths and weaknesses. In addition, the Writing Assessment is designed to identify those Childhood Studies and Early Childhood Studies majors who may need developmental support in meeting the writing standards necessary for successful entry into the teaching profession.

The process of the Writing Assessment is as follows. Incoming students are notified via the college orientation process that they are required to take the Writing Assessment prior to their first semester. Typically this is during the orientation program. The Writing Assessment is administered and scored by trained Education Department faculty and graduate students. Once all of the assessments are collected, they are scored by two readers using a rubric devised in 1991 and revised by college faculty in 1995 and again in 1996. Each faculty member assigns a score of 1-4 in each of four categories (Idea Development, Organization, Expression, and Mechanics). If a significant discrepancy exists between two readers, a third reader scores the assessment. If there is still disagreement, the assessment will be read by the entire group until a consensus score emerges.

The students receive the results of the Writing Assessment prior to registration in order to facilitate accurate registration for general education and departmental writing courses. Those students who score below a designated score are required to enroll in one of two special sections of English Composition. These special sections are smaller than typical composition sections and are taught using the Writer's Workshop paradigm for teaching writing skills. Students in these sections use the Reading and Writing Center as a required part of their composition class. These same students are reassessed at the beginning of the next semester. Those still in need of developmental assistance are strongly encouraged to visit the Reading and Writing Center on campus during the semester. Students' advisors are kept informed of their progress. The Education Department Writing Assessment Committee maintains a database of students' scores. In addition to its archival function, this database supports the research efforts of the committee.

Faculty members in the Education Department use writing assignments to serve several different purposes: to engage students with the material presented in class and in the reading, to enable the professor to get to know students better, to give

students opportunities to do the kind of writing that teachers do, and to encourage students to reflect on their own learning and experiences. Often, different purposes overlap within one writing assignment.

In order to engage the students in thinking more about the class material, many teachers provide time in class for free-writes, which students then share with each other and/or with the teacher. The free-writes are usually on a topic of the teacher's choosing. Several Education Department faculty have their students write reviews of videos shown in class; students may choose two or three videos to write about from among all the videos shown that semester. Book reviews are another common assignment, with some faculty assigning the book to be reviewed and others encouraging the students to review a book of their own choosing that is related to the course material.

Research papers are assigned in several education courses. These provide the opportunity for students to go beyond what is being discussed in class and to explore topics that they are especially interested in. Professors who assign research papers report that they usually have to spend class time reviewing the process of researching and writing a paper, and that students need a lot of help in citing references and preparing the bibliography. Often, faculty encourage or require their students to turn in drafts of the research paper so that they can provide feedback throughout the process. The proliferation of material on the WEB presents new challenges to professors who assign research papers, because many students assume that all information on the internet is accurate and reliable.

Essay exams are typical of many courses in the Education Department. Some faculty give at least one exam or part of an exam as a take-home assignment; in these cases, students are expected to respond thoughtfully to questions that are more challenging than those that would be found on an in-class exam. Several professors write essay exam questions that require the students to apply what they have learned in the course to a "real-

life" scenario.

Professors in the Education Department frequently use writing as a way of getting to know their students better and keeping track of what students are learning. One professor, for example, asks students to complete a "focus" card after each class. On an index card, the student writes his or her observations, comments, concerns and/or questions after each class. The professor returns the cards to the students at the next class, with written feedback. This has been particularly helpful for her in establishing a personal connection with students in a large lecture class. Another professor follows a similar procedure, which he calls "PMIQ' cards. PMIQ stands for "plus, minus, interesting, questions." After each class, students write down on a card what they liked or disliked about the material, what they found interesting, and whatever questions they have. Again, the professor responds to the students' comments at a later class.

Journals are a common feature in many courses in the Education Department and take a variety of forms. In some practicum courses, where professors may not have frequent contact with students, students keep a daily journal of what they have been doing and learning out in the field. Their faculty supervisor reviews the journal periodically as a way of keeping informed about the student's experiences; supervisor and student can also use the journal entries as a focus for discussions and feedback. Journals are also used in more traditional courses. One professor uses a response journal as a way of maintaining personal contact with the students. Students respond to questions posed by the instructor, who responds in turn to their comments. This also gives students who are uncomfortable speaking in class an alternate form of class participation.

From the first course they take in their major, students in Childhood Studies and Early Childhood Studies are involved in doing the kind of writing that real teachers do. For their methods courses, they write lesson plans and curriculum units and implement these planned activities in local classrooms. Whenever

students are involved in working with children, they are expected to communicate in writing with the children's parents about what they are doing and why. Writing a letter to parents (especially to parents whom you haven't met) to explain a project or unit is a much more daunting assignment than students realize at first. Frequent opportunities to write to parents help students become more comfortable with this typical teacher task. Students learn about writing to children through a pen-pal project with primary classes in local elementary schools. College students exchange letters with the children for the entire semester, then travel to the schools to meet their correspondents. This project gives students a chance to get a firsthand understanding of children as writers.

Assessing children's development and learning is an important responsibility of the teacher, as is communicating what you know about a child. Education Department faculty teach students about this through the use of examples of how classroom teachers utilize writing to help their students become more capable learners. For example, all schools have a system of assessing students' progress. Although the methods of assessment may vary from school to school, generally speaking, all methods of assessment involve a process of reporting results to parents, colleagues, and the students themselves. These reports must be written clearly and concisely and be easily understood by a diverse audience. This being the case, the author of the assessment report must possess the necessary writing skills to communicate effectively with the audience. Reports of observation and assessment data require a certain type of writing that many students find difficult; frequent opportunities to practice this kind of writing help students feel more at ease with this important responsibility. Beginning in their introductory courses, students are involved in observing children in natural settings and writing about their observations. All students take one course that focuses on observation and assessment of children. For this course, students do an in-depth study of a particular child, culminating in an extensive written report. Students also come to realize the powerful effect of written

reports in determining how others view a child's capabilities and needs. They learn to write about what a child can do and does know, rather than focusing on the child's deficits.

Improving the lives of children and families often involves the need to convince people that new ideas and programs are in the best interests of children and families. For example, upon graduation many of our students find themselves requesting funding for after-school programs or increased funding for pilot programs targeted for at-risk children. Programs such as these often begin with a well-written position statement. If a convincing document is not provided at the onset, chances are that the request will never reach the desk of the person making the decisions. In many education classes, students write position papers on particular issues or defend a particular point of view. One of the underlying purposes of this kind of assignment is for students to learn how important it is to be able to give good reasons for why they're doing what they're doing. As teachers, they will often be challenged by parents and administrators to explain why they teach in a certain way or use a certain method (a typical example is the type of reading program a teacher follows). They will need to know how to interpret, apply, and explain the research on teaching practices.

Teachers become more effective practitioners through continual self-evaluation and reflection. Students in Early Childhood and Childhood Studies engage in a number of different writing activities to promote reflection. Assignments such as writing their literacy autobiographies or writing about their own childhood help students to relate class material to their personal experiences and make connections with the experiences of the children they will be teaching. These assignments also help students to understand the context in which their own beliefs and attitudes about teaching and learning developed. Written reflections are also incorporated into students' field experiences as practice teachers. After each teaching experience, they reflect in writing on what they and the children have learned. Students are asked to write about what

they would change the next time they taught this same lesson or activity, and what they have learned from the experience that they could apply in general to their teaching. This reinforces the importance of using writing as a means of self-improvement. Faculty talk with students about how to reflect upon teaching experiences and in many cases develop reflective questions that provide the students with guidelines of how to think critically about their roles in the lives of children and families. The ability to reflect upon complex issues is a skill that the Education Department reinforces and monitors throughout students' preservice training.

In several education classes, students compile portfolios. These may take the form of showcase portfolios, where they highlight their best work from the semester, or portfolios that document their progress through the course. In methods and practicum classes, students compile professional portfolios. The process of selecting items to include in the professional portfolio encourages the student to reflect on who they are as teachers and how they wish to present themselves to prospective employers. Faculty provide guidance and feedback for students throughout the portfolio process.

The education faculty work hard to help students see that writing is integrally connected to teaching, and that improving their ability to communicate effectively in writing can also improve their teaching. The departmental writing committee meets regularly throughout the semester and reports monthly to the entire department. This keeps discussions of writing on our department agenda, and reminds us of the importance of working together to help our students become better writers as well as better teachers.

With thanks to *Gary Goodnough, Chair of the Education Department Writing Assessment Committee*

Writing Experiences Across the Art Department Curriculum

Bill Haust

Why would artists feel the need to write when they have at their fingertips a vocabulary of visual imagery which communicates experience and which has functioned effectively for thousands of years? Why teach future artists to write when their energies should be directed to communicating through visual, non-verbal means? These questions and many others continue to arise whenever artists write or whenever educators of artists ask their students to write.

Artists and art students write about art in order to clarify experiences and to account for responses to things that excite or frustrate them. The written response, as does the visual response, demands that we more carefully examine what is before us or within so that we may translate it to word, image, or symbol. It is that second or third look that moves to a deeper response. The outcome or product provides a forum for us to share that response with an audience.

Writing about art, although well established within the visual arts, remains a controversial issue among artists and educators of artists. One may consider the written response to be a compromise of the artistic experience and that asking art students to write will take time from the most important task, creating visual art. It is evident, however, that there is support for the integration of

writing experiences in visual arts education. This paper outlines the work of several advocates of writing across the art curriculum.

Cynthia Vascak, an artist and art educator who is actively involved in writing experiences with her students in studio art classes and art education methods classes, states that the interactions between visual and written language "facilitate understanding, provide meaning, nurture personal involvement in the learning process, generate ideas, and heighten perceptual awareness." She suggests that the manipulation of symbols, through written and visual forms, enhances understanding and enriches meaning. "The more languages we have access to, the greater our capacity to intensely experience, translate experience, to know and to communicate." Each form of expression enriches the other and each has qualities that are essential to success in artistic exploration in any medium.

A survey of colleagues in the Art Department identified several disciplines of visual arts education where writing is an essential component. The disciplines of the art studio, art history and art education are all components of a comprehensive art curriculum, and the consistency of written experiences links together diverse disciplines with common methodologies. When artists write about artistic matters and processes, perhaps they hope to simplify the difficult task of understanding visual responses. Through writing, as artists, we learn; the written word becomes a medium of communication which can support and complement our visual response. The written word may also compromise the visual response and reduce the strength of the visual communication. The artist and the writer, as well as the musician, the mathematician, and the actor, learn to communicate through a complex system of symbols and through this system, generate fluency of ideas, processes, reflections.

Writing in my drawing classes, at introductory and advanced levels, is an important component of learning to draw and understanding the visual responses artists have had throughout history. As I state in my syllabus, "Learning to draw well involves more

than just drawing. It also means observing, reacting, reading, critiquing, writing and, in many ways, learning to see all over again. Drawing, real drawing, will be a way for you to translate your experiences into a visual form using a variety of languages." Research and writing is an important aspect of drawing in my classes, and writing helps students learn and understand this new language.

Each week, students are asked to find a reproduction of a drawing, in an art book or art journal, which they respond to in some way and which is related to an area being explored in class. Students are asked to spend most of their time looking at the drawings to best understand the artist's methods of drawing and use of materials, style and technique. First, they emulate the drawing in their sketchbook to capture the style, technique, and feel of the artist's work. Second, they copy a quote, an idea, or a thought from the book or journal that gives insight into the artist's mind and work. And third, they write a few lines in their own words explaining what they find relevant and significant about this drawing. As with any research, they are asked to cite the source of the drawing. Although somewhat resistant at first, students eventually become enthusiastic about this assignment and begin to see the power of research and how writing reflective response to master works can lead to the growth and progress of their work as well as their general understanding of art.

The following passages are from a student's drawing sketchbook:

> It's amazing how much more you get of a work when you recreate it. I've recognized things that I wouldn't have noticed otherwise. You really have to get to know the work. This work in particular, although being quite sketchy, has quite a bit of detail when you really take time to look. I noticed the lines are made darker and get light to make things look farther away, like we were doing in class.

> I immediately liked Beardsley's work. First of all, it was different than most of the works I had been looking at. The fact that he created such works with mostly line or dots or such, I find very interesting. What I find most interesting about this piece is how the whole picture conforms *to* the inside of the circle, from the felt foot to the arch of his back.
>
> Scroll-curl of hair, profile at left into an ear, sound holes-eyes and mouth, strings-crooked nose. I didn't even see the face until I read the text, but now that's all I see smiling up at me.
>
> Looking through a book of Van Gogh's work, I realize that he used perspective quite a bit, be it in still life or outdoor scenes, but he always seemed to keep it loose. The Bedroom is just full of perspective from the one-point perspective of the floor to the two-point perspective of the furniture. The point of eye level I have marked is a bit more apparent in the actual work (Heather Sheedy).

Cynthia Vascak describes four approaches to writing that she integrates into her studio and art education courses. These are writing experiences which are multi-modal, integrating writing with other cognitive/artistic processes in a seamless fabric of artistic response. Vascak asks her students to, first, write about creation as a visual language and the primary means of communication; second, write reflective sketchbook journals that combine words and images; third, write reflective free writing in preparation for thematic or critical discussion; and fourth, write responses to works of art. For Vascak, writing in her classroom moves beyond the traditional experience to become "multi-modal symbol manipulation as a vehicle for the enhancement of understanding and meaning regarding learning."

The following are from two of Vascak's students' drawing sketchbooks:

> I learned a lot about modulating lines in this piece. I used them a great deal as in the shell, in the grain of the wood of the chair, and in the actual leaves of the sunflowers. I feel that I also achieved a depth in this piece. You can see this depth with the lower left corner sunflower overlaps the shell and how the stem of the same flower wraps around the chair (Kelly Temple).

> I am in the middle of a drawing assignment, frustrated and doubting my talent. I can't seem to make the figure come to life. I stopped and pulled out my pastels and ink. I just made marks and lines until my frustration was gone. I was happy with this little creation. I would have considered it just a doodle but it has more meaning, It is a representation of how I dealt with my frustration (Karen Cantara).

Susan Tucker, ceramic artist and teacher, has integrated writing into the critique process for three-dimensional art works which combines close directed observation through drawing with descriptive writing. In preparation for a group oral critique, students are asked both to draw several views and specific sections of their completed three-dimensional forms showing specific aspects of the design related to the assignment and to describe in writing what they are seeking and defining step-by-step. Both the visual and written description are required of each student.

This exercise enables students to abstract and comprehend the component parts of design such as line, shape, relation of positive shape to negative space, relation of similar elements, proportion, and other relationships within the overall structure and composition. Tucker states, "I believe this experience improves their

working vocabularies and their ability to articulate clearly about the composition of their artwork, especially when combined with the subsequent oral critique—the opportunity to speak about the design of their work. The intense involvement in looking and describing seems to crystallize understanding for students in a memorable way. They are able to apply their understanding to the next projects with noted improvement."

The following are responses from Tucker's critique questionnaires:

> Because the form started with square geometric shapes, I stayed with geometric shapes, cutting off corners and different segments from the cube, reapplying them to extend walls and create other negative geometric shapes that extend beyond the actual cube. The similarities are mostly square chunks taken from the cube, implying square negative shapes and leaving square visual windows into the original cube (Mike Mansfield).

> The front side I feel is the strongest because I've created nice closure using a half-triangle, half rectangle shape as well as a negative triangle enclosed by two positive triangles (Lauren Marinelli).

Richard Hunnewell, art historian, integrates writing experiences throughout his classes at all levels and states, "Writing is essential to processing art history!" His students universally respond positively about the value of writing and collaborative discussion in groups, and then class discussion as a way of developing critical viewing, thinking and writing skills.

Hunnewell describes a variety of writing methods he uses in his art history classes which include free-writes to focus on issues and clarify background; short essays in introductory level courses to see how students are developing critical skills in reading, viewing, writing and assimilating material; short essays in upper

level courses as a basis for critical discussion on an artist, work, issue, research or writing process; and essay components in final exams. Hunnewell indicates that art history students respond well to writing experiences where they role play an artist, contemporary viewer, or art critic; plan an exhibition of critical works; or write a preface to a particular work or series of works.

The following writing samples are taken from short essays of two students in upper level art history classes:

> The Japanese love of nature and of organic things in life is more than just aesthetic. When walking through a forest, you are transported away from the chaos and busyness in your life in a moment, and I think the Japanese were deeply touched by this. We all incorporate things that move us into our lives in some way or another. The most basic element that moves all humans in life is something that will always be remembered and revered-especially in Japan. A reverence of nature (Michael Swartz).

> The Northern Renaissance aesthetic reveals an interest in the human experience, the entwining of mysticism, and the layering of multiple realities and symbolic meanings. They were not interested in the reproduction of the natural world and its appearances, but a deeper search into the reality of experience delegated to metaphor and the appearance of reality (Kathleen Brennan).

The successes of students in the art department may result because a variety of means of symbol-making is encouraged for the expression and communication of their experiences. As each form of expression complements and enriches the other, students develop a richer and more extensive vocabulary to learn, know, and express themselves as artists and scholars.

Writing to Learn Mathematics

Bernadette Russek

Contrary to popular belief, mathematicians must write and must write well. Statisticians write coherent reports; math educators express themselves in the discipline; and pure mathematicians communicate complex, yet precise, ideas. These forms of writing are addressed in the courses offered in the Math Department. However, there are also other motivations for using writing in math classes. Writing is a valuable assessment tool. It is used to assess attitudes and beliefs, mathematics ability, and ability to express ideas clearly. It can be used for student reflections on their own work, such as in the creation of a portfolio. It is used as a tool for students to investigate topics in The History of Mathematics, such as Women in Mathematics, or the Chronology of Pi. It is used to open doors of communication with students who may have math anxiety or who have "I hate math!" feelings, students who may have never really 'spoken' to their mathematics professor before. There is a wide variety of use of writing in the Mathematics Department. Few teach writing per se, most use it in context of mathematics learning. However, most faculty do expect well-organized thoughts, good grammar, and clear communication.

Some of the tasks fall into the category of writing about mathematics learning. For example, in Theory & Methods of Mathematics Learning, on the very first day students arc asked to write a paragraph on *What is Mathematics?* (see appendix for a

sample response) or *What Makes an Effective Math Teacher?* Not only do students use writing throughout the course to learn about mathematics education, but they also learn about the role of writing in mathematics learning. In this course they scrutinize the English language and examine how it communicates mathematical ideas.

In Introduction to Algebra, a number of writing tasks are assigned. Donna Kelly gives a written assignment every week. She presents a math 'trick' on Monday and the students have to write why it works in a couple of paragraphs that are due on Friday. She requires complete, coherent sentences, and stresses that students check spelling and grammar. The assignment is graded mainly on content; however, she does take off points for incoherent, incomplete sentences and excessive spelling errors.

In Introduction to Algebra, Part I, Bernadette Russek provides a set of writing prompts (see appendix) to students at the beginning of the semester, and every so often asks for one of these to be passed in. The first writing assignment is an effort to get to know the students and establish communication links. The prompt given states: "Write a 'mathography' in which you describe your feelings about and experiences in mathematics, both in and out of school. Include the completion of the statement: *What I like most (or least) about math is . . .*" Another prompt is, "Write a letter to a classmate who could not attend class today so that she/he will understand what we did and learn as much as you did. Be as complete as possible." The one she likes best is, "Write a letter of advice to a student who is going to take this class next year." The students like to do these assignments; they like the dialogue and the opportunity to express their thoughts about an oftentimes mystical and threatening world of math.

In Problem Solving, Donna Kelly assigns problems to groups of students. These problems are mini-research problems that the group must present to the class. In addition to their presentation, the group must submit a written report including the original data, table of values, graphs, interpretation of data, notice patterns, and

observations. The report must be in complete, coherent sentences, have correct spelling and grammar. Again, this assignment is graded mainly on content, but points are assigned for the writing requirements.

In Number Systems, a course designed for Childhood Studies majors, Marilyn Wixson requires a Text Review and an Essay. The essay asks the students to reflect upon one or two of the lab activities. It is to be two or three type-written pages long, and must include at least two outside references with appropriate footnotes. The essay should address the following:

1. Identification and description of at least two mathematical concepts illustrated by each activity.
2. An explanation of what you would do to the activity so you could use it with students at two or three levels- elementary, middle or secondary.
3. A detailed description of some other activities you could augment or use to replace the given activity in the teaching of the concepts identified.

In Problem Solving, Bernadette Russek requires a portfolio, a long-term project of student-selected work. Portfolios are rich in student reflection statements (see appendix). Students must justify the selection of each piece. They must also include a letter to the reader establishing the student's math background, a "banner statement," and organize the selections into a meaningful whole. There is no attempt to teach writing in this assignment; writing is used as an assessment tool.

Writing is an important part of The History of Mathematics course. Discussion questions are on the exams. For example, "Describe the accomplishments of Fibonacci. Write in complete sentences with full explanations." Students in this course must also write a term paper on some mathematician or mathematical discovery or phenomenon, such as Cryptography or "Perspective drawing as developed by the Renaissance artists." Paul Estes' instructions for this assignment include concern for correct writing:

> This final product should be the culmination of

> searching for information, reading, organizing your thoughts, writing a first draft, and revising into finished form with careful attention to writing basics (correct grammar, sentence structure, spelling, etc.) and thorough proofreading. Credit for your sources should be given in one of the standard formats as prescribed in Diana Hacker's *Writer's Reference* or some other writer's handbook.

As we move into more mathematical courses, writing continues to be of importance. Both statistics courses expect a level of verbal analysis and written communication of findings. Questions sound like, "Describe the overall pattern of...;" "Explain why...;" "Justify your statements." Jon Maatta assigns case studies with a lot of reading and a lot of writing {as well as a lot of statistical analysis). He asks questions such as, "Investigate each of the variables in this problem and comment on anything that is unusual" ; "... interpret the resulting intervals. You should include an interpretation for both the prediction and confidence intervals for at least one of the months for a particular degree day;" "What can you do to improve this model within the limitations that Harold faced? Be explicit by designing possible models that might improve our ability to predict gas consumption." These kinds of questions demand that the student express the situation clearly via the English language.

The course Geometries provides a number of opportunities to write. Of course, there are a number of proofs that must be written out clearly and logically. Furthermore, it is a course with a number of projects, which demand writing. For computer projects, students are asked to keep a log of their progress. The Computer Log asks that they describe:

- New skills necessary to do this project
- Sticking points (problems with the software, or understanding the assignment, or printing, or whatever)
- What I learned.

Students are asked to think about questions to help organize

their thinking as they go through the problems. These questions are:

- -Do I understand what is being asked? Do I understand all the terms?
- -Have I answered each part in the way the question asks?
- -Are all my conjectures supported by some stated evidence?
- -Is my work organized and presented in a clear and readable manner?
- -Are my answers clear to an outside reader?
- -Could I verbally summarize the general conclusions?

Throughout the Geometries course students are asked to "describe," "compare," "investigate," "explain." This kind of question requires an answer in written form. It encourages students to think about their thinking and to better understand that mathematics is more than a lot of short symbolic answers.

In the Elementary Functions course, which is pre-calculus mathematics, Enid Burrows also expects various forms of writing to learn mathematics. Students are expected to submit an email synopsis of the reading material on a regular basis. In a paragraph submitted on email, they are to describe their understanding of the text section to be discussed in that day's lesson. In this course, the text also encourages student writing in *Writing to Learn* sections of the homework sets. For example, "Solve the equation three times—once algebraically, once graphically, and once numerically. Describe the advantage and disadvantage of each method." This kind of exercise is a substantial break from the traditional method of teaching mathematics.

Finally, in the more esoteric courses, such as Algebraic Structures, Norm Cote contends that there is a need to read and write precisely mathematical text, such as proofs. Critical analysis of proofs provides a model for students to then write their own mathematical proofs clearly and logically. In this course, mathematics is a language and is used to express ideas, but we use the English language as a basis for this communication. Students are

taught to use both languages to communicate their ideas.

In conclusion, all mathematics courses expect a degree of writing. It is routine to observe direct use of writing in note taking, making summaries, and descriptions. It is routine to observe linguistic translation, the translation from mathematical symbols to words, and the translation from the English representation into mathematical symbols and equations. It is also standard practice to write persuasive proofs. What is somewhat different today is the use of writing in the form of journals, paragraph descriptions, and explanations to enhance learning and as part of the assessment process. Instructors ask students how they feel about the mathematics that they are learning, to enter into a dialogue with the teacher, and to reflect on their work and their readings. This is a new direction in writing to learn mathematics.

Appendix

Example of an MA107 Assignment Sheet for Journal Writing

Date:

a. Write a letter to a classmate who could not attend class today so that she/he will understand what we did and learn as much as you did. Be as complete as possible.

b. Reflect on your participation in class today and then complete the following statement. Select one of your choice.

I learned that I ...
I was surprised that I ...
I discovered that I ...

I was pleased that I ...

c. Reflect on where you are in the course and complete the following statements. Select two.

Now I understand ________

I still do not understand _________

I can help myself by doing __________

You can help me by _________

d. Write a "mathography" in which you describe your feelings about and experiences in mathematics, both in and out of school. Include the completion of the statement: What I like most (or least) about math is ...

e. Write a letter of advice to a student who is going to take this class next year.

f. Explain to a high school senior why it is important or not important to do mathematics.

g. Design two mathematical bumper stickers, one funny and one serious.

Examples of Student Writing in Mathematics Learning

Responses to the MA107 Assignment Sheet for Journal Writing

part a:

Dear Classmate,

Today was not a good day to miss because we went over Scientific Notation. Scientific notation is a system used that makes very big #'s and very small #'s easyer (sic) to see and write. For example, 72,000,000 = 7.2 x 107, because if you did (this) out you would get 72,000,000. It's just nicer. Make sure you get to class next time.

part ***c:***

Now I understand the problems that involve charts. At first I had trouble with the coin, stamp, and Integer problems. After reading the corresponding text, which I read slowly and thoroughly to make sure I absorbed every bit of info., I began the homework. I breezed right through it. I find it much easier to do all the reading before I start the work.

part **c:**

When I do these problems containing fractions, I still don't understand how to make them whole numbers.

You can help me by doing more math problems w/ fractions.

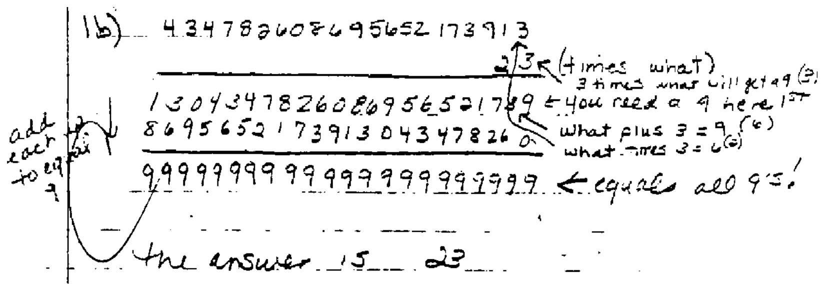
* * *

Excerpts from a Portfolio:

An example of an "affective" endeavor, such as risk taking perseverance, willingness to make various attempts, positive attitudes, change in attitudes, etc.

What number times 434782608695652173913 gives all 9's for

an answer? This problem was one of our tests, and it was the hardest problem for me to figure out because every number had to be kept in a straight line and very organized. One mistake meant the whole problem was wrong. As I repeatedly tried to do this problem, I had to keep copying it over to start over. When I copied over the number at one point, I made a mistake and forgot a number. So, I had an 18 digit number for the answer, which didn't look right to me, and I later figured out that the solution was only two digits long. Consequently, I had made the problem harder than it was, and it made me redo the problem for about six hours all together, but I had to take risks and I had to persevere to get the right answer. My attitude towards the whole problem had to be adjusted by looking at the problem differently and trying to figure out where I went wrong.



* * *

Before and After Taking MA401-Theory and Methods of Math Learning

"What is Mathematics?" by Melissa
(before taking course) 1/28/98

Mathematics to me is scary. I am not strong in math at all, so I have negative feelings towards it. Part of my problem is that I

refer to math as a science and I also dislike science. Although, I'd have to admit that my opinion is gradually changing through the years. It seems to make more sense as you play with it more and have more patience. Math, to me, is a bunch of numbers and symbols used to represent different relationships and measurements. I immediately think of problem solving and reasoning. Math is used to solve all sorts of problems and to think out solutions to computations. Math is a way to communicate with numbers and symbols. So it is just like the English language, but on a different level. There are many different kinds of math: algebra, geometry, finite, trigonometry, statistics, calculus, and so on. They each focus on a different topic in math. I prefer the easier stuff like algebra and geometry. I can eventually make sense and figure it out, unlike trig and stats. I like to have a lot of repetition and many different examples to look at. When it comes to math I am a slow learner, as well as a visual learner. I need to see all the steps written out. The math that is taught in the primary grades is easy to understand. I do not think I will have a problem teaching it because I know what children may have problems with because I have experienced some of the same problems myself.

(after taking course) 4/30/98

My opinion has definitely changed since the beginning of this course. I learned not to be afraid of math because there is nothing to be afraid of. I learned how children think so now I know how to teach math. I also have a better idea of what I need to teach. I have grown to appreciate math more now because I learned how easy it is to integrate it with language arts, science, and much more. Integrating it makes it more fun to work with.

Teaching Writing and Teaching Philosophy

Ray Perkins and Dan Kervick

We would like to explore two questions concerning philosophy and writing: (1) How might the study of philosophy be used to teach good writing? And, (2) How might the art and practice of writing be used to teach philosophy?

The connection between philosophy and writing lies partly in the fact that philosophy, like any discipline, requires that its practitioners be able to communicate its main ideas. But there is also a rather special connection that arises from the fact that good writing--especially good critical writing—requires good reasoning. And the study of sound reasoning, logic, has been a special part of the subject matter of philosophy ever since Aristotle made the perfectly obvious point that none of our answers to life's big questions will be worth much if those answers have been arrived at by fallacious reasoning. In short, logic is an essential element in good writing and in good philosophy, and it should come as no surprise that the teaching of the two are, or should be, intimately connected.

But surely, sound reasoning is essential to every academic discipline. Why is there a special connection between logic and philosophy? One reason is that philosophy deals with questions that are highly abstract. They cannot be addressed by systematic observation and experiment (although the results of the empirical

sciences may inform the philosopher's treatment of some issue), and must be approached with nothing but unaided reason, However, this does not distinguish philosophy from other abstract disciplines, most notably mathematics. Unlike those in mathematics, however, the concepts of primary importance to philosophy seem especially vulnerable to confusion, conflation and vagueness. Mathematics often proceeds from stipulated definitions of its key concepts, and its investigations and proofs are thus "clean." The key concepts in philosophy, on the other hand, are those involved in messy everyday thought and discourse. We deal with such things as belief, desire, freedom, consciousness, knowledge. Logic plays the role here of clearing up conceptual confusion.

There is a further reason for the importance of writing in the teaching of philosophy. The medium of philosophy consists almost entirely of written essays or treatises. There are no experimental apparatus or laboratories, no statistical studies, and very few useful computer applications. There is no distinction in philosophy between experimentalists and theorists—philosophers are all theorists—and there is no branch of engineering that focuses on applying the results of philosophy to technological innovations, The practice of philosophy consists mainly of reading what others have written, thinking about it, and writing something new; so all philosophers must write. And to be persuasive, a philosopher must be able to lead readers from premises the readers already accept to the conclusion the philosopher wants to defend, in a manner which is both natural and rigorous. The ability to write clearly and effectively is thus essential to the very practice of philosophy.

In our department, the teaching of writing through the assignment of philosophy papers goes on at all levels of study, for majors and non-majors alike. Indeed, some of the most important instruction goes on in PY103, a general education course in critical thinking called Thinking Intelligently. This is our most popular course and provides the three who teach it with considerable opportunity for pedagogic experimentation, including experi-

mentation with writing assignments. Although we each approach the course in our own ways, we all put great importance on clarity of thinking and writing, on awareness of the power and seduction of emotive language and, especially, on the avoidance of fallacious reasoning.

Many of these writing assignments focus on the concept of cogent reasoning. Typically, the students have to critique a piece of persuasive writing—say, a political speech or a newspaper editorial. They must be able to identify the writer's reasoning, i.e. the thesis and the reasons offered for it, and evaluate the reasoning in terms of its cogency or non-cogency—determine whether the reasons are warranted, whether they omit any relevant information, and whether they offer adequate support for the thesis.

One of us, Ray Perkins, has a number of ideas for writing assignments that he has found useful. In one, students are asked to read a *Concord Monitor* article on New Hampshire poverty and a letter to the editor critical of the article. The student is asked to evaluate the cogency of the letter. It's a good exercise, because it requires a student to distinguish a news article from an opinion piece and to apply the canons of good reasoning to an emotionally charged issue. It also helps the student to see the connection between good writing, good logic and good citizenship. As a variation on this, Perkins has sometimes had his students write their own letters to the editor, on any topic—and to any newspaper—of their choice. He has done this successfully in at least one upper level course as well, PY 356 Philosophical Perspectives on War and Peace. Obviously, this sort of exercise will pay, potentially, many kinds of dividends to the student philosopher-writer.

Perkins has another favorite writing assignment dealing with cogent reasoning, but in this case a bit more room is given to the creative side of these budding logicians. He asks them to write a one-act play on any subject. But, in the course of the dialogue the characters must commit at least six fallacies (of the dozens or so which are studied). And at the end of the play, the author must identify, name and explain each of the fallacies committed. This

assignment was inspired by an idea originally tested by David Zehr of the PSC Psychology Department. He has had great results with it, and so has Perkins. Constructing, and explaining, your own fallacious arguments in a one-act play is admittedly easier than finding them in the letters to the editor, but it can be an enjoyable experience for both student and instructor (most of these are a lot of fun to read) and, of course, students get to exercise their writing skills in more than just logical ways,

Philosophical issues, while sometimes abstract, are intimately relevant to our lives. But, in the interest of objectivity, philosophers typically treat these issues in a cool, detached and analytic manner. While this approach is essential to progress in philosophy, introductory philosophy students often find the abstraction daunting and the detached perspective off-putting. In addition, most of our students are young and have little experience of the "real world." For such students, unless one succeeds in helping them to emotionally connect with their topic in some way, one is not likely to succeed in enabling them to engage the abstract conceptual issues.

One of us, Dan Kervick, has occasionally tried to deal with these problems by giving assignments that involve embedding a traditional objective treatment of the issues within a more compelling imaginative framework. One assignment, for an introductory ethics class, asked students to imagine that they were the parents of a college-age daughter, that this daughter had written them a letter announcing that she was pregnant, that she was contemplating an abortion, and that she was morally confused and wanted help and moral advice.

This assignment was very successful for a number of reasons. The students seemed to have put more than the usual amount of effort into the assignment and were clearly much more interested in it. The process of writing the paper also seemed to have generated a certain amount of vicarious emotional discomfort, and it helped us, as a class, to deal with issues not often dealt with in an ethics class, such as those connected with the possibilities of

conflict between the objective standpoint of moral thinking, and the more subjective values involved in close personal relationships. Many students, for example, experienced the conflict between the desire to recommend a moral course of behavior, and the understandably natural desire of a parent to recommend the course of action that was in the best interest of the daughter, without regard to objective or universal moral concerns. In addition, a number of students felt misgivings about the whole idea of giving moral "advice" or making moral recommendations. They found this attitude to be too paternalistic. This naturally led to a discussion of the connection between paternalism and the moral responsibilities of parenthood.

Use of an imaginative framework is one technique for stimulating the creative process of writing. Another colleague of ours, David Haight, also recommends the practice of meditation as an aid in inspiration, coherence, clarity and concentration.

Haight also believes, and emphasizes with his students, that the biggest barrier to writing should be crossed by sitting oneself down at one's desk, typewriter, computer or whatever and writing something. He also recommends "going the distance" with one's writing. Frustration and discouragement often disturb the long-term goal of finishing in favor of short-term diversions and distractions. The failure to follow through to the end of something is a sign of the all-too-human tendency to hedge, fudge and cheat on something just to get through, get by and then get out of whatever we should be doing.

Students in Haight's class are given three kinds of writing assignment: essays to be worked on during a full class period, summaries of what they read in a book, and term papers outside of class. Haight then selects the best summaries and papers for students to share with the rest of the class. That way, students are encouraged to do their very best. Some students are also encouraged to keep a diary or journal of their thoughts and to share them with the professor, who then responds to them verbally or in writing.

Finally, many members of the department seem agreed that there is another important purpose in assigning writing in philosophy, and in the college classroom in general. Our students are, through their progress as students, joining the community of educated people, and must have an awareness of and respect for the prevailing standards of writing within that community. So, in addition to their philosophical content, papers should be assessed on the basis of such things as syntax, style, grammar and spelling.

Writing in the Natural Science Department

Chris Chabot and Warren Tomkiewicz

The Natural Science Department is a diverse department with four major disciplines (biology, meteorology, science education and chemistry arranged in decreasing numbers of majors) and it is difficult to summarize all of the types of writing assignments. Nonetheless, the most common type of writing experience shared by each of these majors is "the" scientific paper. We use the article "the" advisedly because in reality scientific papers are generally written in discipline and/or journal specific formats. Writing assignments that we give students are outlined below by discipline.

Biology Writing Assignments

Biology faculty have attempted to integrate writing throughout our introductory and upper-level courses. We begin early: we have the advantage of requiring all of our (declared) first year majors to enroll in sections of IAC taught by two biologists. In this section, we focus primarily on writing "good" paragraphs addressing biological issues. Last year we had the students purchase a book, *Ever Since Darwin* by Stephen Jay Gould, containing a series of biological essays. We asked them to read one assigned chapter and to write a well-constructed paragraph based on a question about an important biological principle

illustrated by the chapter. We graded these paragraphs primarily on structure and content. We also ask the students to purchase a published "writing guide" for biologists which discusses a number of discipline-specific writing assignments. We encourage our majors to use this guide as a reference for any written work that they submit. Lastly, in General Biology Laboratory they are asked to write a free-verse description of a particular animal or plant group—the students exhibit a great deal of creativity here and the faculty lave to read (and share) them!

There are four sophomore level biology classes, and all of our majors are required to take at least one of these. In Vertebrate Biology, the students are required to submit an extensively annotated laboratory notebook which "tells a story" about the organisms illustrated. Feedback is given at least once during mid-semester and the students are expected to correct any writing problems that were noted by the instructor. In another course, Invertebrate Biology, biweekly writing assignments of various forms are required (often as a laboratory report or a scientific paper). They are graded as satisfactory or unsatisfactory. Those labeled unsatisfactory must be re-submitted until they are acceptable.

We have eight upper-level courses that have significant writing components (the other nine upper-level courses require little writing). All of our majors must take at least two of these courses and most of our majors take an additional one or two. The writing assignments here are primarily based on scientific papers which have a specific form (Title, Abstract, Introduction, Methods, Results, Discussion, Literature Cited). An approach similar to the WAC model is used which includes submission of more than one draft, peer reviewing and editing sessions, revisions based on both peer and instructor's comments. Most of us take a section-by-section approach to these papers so that by the time the students' first complete scientific paper is due they have written and re-written each of the sections at least once. Several specific assignments that deviate from this general model are worthy of note:

1) In several of these courses students write scientific papers based on hypotheses they construct and experiments they carry-out. These hypotheses are generally based on course lectures, assigned or independent readings, and much discussion with the professor. This is a very time-consuming method for the professor but it allows the student to participate first-hand in the scientific method. One of the best ways for a student to discover the shortcomings of an experiment is to try to present the results in a written and graphical format. We require that the students submit this written work early in the process to allow them to see the potential deficiencies in the experimental design for themselves.

2) Another useful technique embraced by a few of us is a take-home exam in which the students are required to write paragraphs which describe a series of tables and/or graphs from the scientific literature. We require that they be both concise and precise in their descriptions and we encourage them to work on the analysis of the figures (but not the writing) together.

3) In another class, students are required to work together to produce a standardized "Technical Report" on a body of water chosen by the students in the Plymouth area. There are many specific details but in essence the students must visit the body of water several times during the semester, collect data on that body of water and submit a group report. This report is in the general form that might be expected at a government agency and includes the typical scientific paper sections as well as a cost analysis and a list of necessary supplies and vendor names and addresses.

In addition, Biology majors are required to take General Chemistry, Organic Chemistry, and (many take) Biochemistry. The writing assignments required for these classes are included in the "Writing in Chemistry" section below.

Finally, biology students are required to take Bioseminar, and most of them take this class during their senior year. The focus

of this class is for the students to investigate specific areas in biology and to give an oral report on original scientific literature in those areas. They generally are asked to submit an abstract of their talk, an annotated bibliography, as well as two drafts of their talk outline. Organizational writing that the students have been previously exposed to—outlining, good paragraph construction, argumentative writing—seems to help the Bioseminar students to carry out this endeavor well.

Meteorology Writing Assignments

Most of the writing within the major is done in the "W" designated course Meteorological Instrumentation and Observation, a sophomore level class. There are weekly in-class writing assignments given early in the semester designed to develop and hone writing skills before tackling longer papers. These in-class writing assignments are usually focused around interpretation of data tables and/or graphs. Occasionally they are asked to take a paragraph of scrambled sentences and make logical sense out of it. The raw material for these brief exercises comes from scientific texts and journals. In addition, students are asked to keep a journal which should contain weather-related observations, but the professor also encourages the students to write down other general thoughts that come to mind (free-writes). These journals are examined 3-4 times/semester for style and continuity of entries. The in-class assignments and journal writing are designed to improve skills in order to write three two-page "summary papers." Much of the work on writing skills is focused here. Students are asked to select a pertinent article from specific meteorological journals and are then expected to address a few specific questions regarding the purpose and the objectives of the study. They type up a draft and enter into a peer review session with 3-4 other students. The students take turns reading their drafts aloud to one another to attempt to catch problems with syntax, spelling, organization, etc. The students revise their drafts and re-submit their work this time to the professor for review. The professor provides

written feedback on this draft and then returns it to the student who is expected to turn in a final draft for grading. Towards the end of the semester the students are asked to present one of their three summaries orally to the class and then be able to field questions.

Meteorology students also have two other important opportunities to work on their writing. As first year students they are asked to write up the results of a climatological study done in association with their climatology course. Senior meteorology students must also write up their experimental study in scientific format if they choose to conduct independent research.

Science Education Writing Assignments

Examples of writing assignments are provided for the following General Education science courses: Biology: Core Concepts, Oceanography, Astronomy, and Earth Science. Although these courses are considered in the General Education program, they are taken by some of the science education majors in our department. Science Education majors take essentially all of the courses listed above in biology or meteorology or below in chemistry. In addition, many of the students in these classes are Elementary Education or Childhood Studies majors. The writing-to-learn and learning-to-write philosophy embedded in the Writing Across the Curriculum effort is an important and vital part of the overall assessment of students in these courses.

Weekly laboratory reports in the Biology: Core Concepts course are required. The objective of these forms of technical writing is to unpack the notion that students generally have that scientific writing is beyond what they can do or that there is some mystery in how a scientist or in this case a biologist would write about their findings. Students follow the format for a report/paper as presented above in the biology majors section with a developmental focus in mind. Initially, the title, purpose and hypotheses need to be clearly stated with a progression to more emphasis on presentation and analysis of data (tables, graphs and discussion)

and references (bibliography and webliography). A great deal of feedback occurs during the first several weeks and students are encouraged to respond to any suggestions or make corrections. In this way, they are immersed in the writing process. They are encouraged to write what they mean, what they did, or what they observed as clearly as possible. This then involves the learning-to-write component.

The culmination of this writing process is the research paper to support an independent experimental project that is required. The paper goes through a series of drafts and revisions with comments on content, paragraph structure, and spelling from both the instructor and fellow students and then is presented orally in a seminar format. The scientific process and paper is a critical part of the course because students are thinking and acting as scientists with a biological focus.

Research papers in the oceanography, astronomy, and earth science courses are used to accomplish various learning outcomes. In oceanography students are required to write two short research papers, 6-10 pages in length, one that address a scientific topic about the oceans and the second a topic related to the oceans but not a science topic. This topic often is closely aligned to a student's major with papers on ocean poetry, art, music, economics, mathematics, history, and teaching submitted. Drafts are required so there is a good chance of success with these writing assignments.

While the specific writing assignments for the Secondary Science Methods course vary from year to year, they contain a range of writing applications that are appropriate for future educators. The overall goal is to expose students to the language of education and to hone writing skills that they will use as teachers. The students develop their own grading rubrics and peer review assignments. Students usually complete assignments on the following topics: an essay on *The Nature of Science and How It Affects Science Teaching,* an essay on *How Do You Learn Science?,* unit/lesson planning, software reviews, reviews of the

scientific and science education literature, a personal journal of classroom observations, and class presentations on current topics in education such as state-of-the-art class handouts, WWW searches, and reviews of State and National Standards.

The astronomy students do various writing assignments dealing with topics such as Why Study Astronomy?, constellations and mythology, biographies of important astronomers, story summaries for science fiction, and formal reports for night sky observations and sun/moon studies, Content, grammar, spelling, and punctuation are graded in these assignments. It is interesting that some students elect this course because they enjoy writing and realize it is an important part of the course and final grade.

In addition to the usual essay question that addresses application or problem-solving, two-tier multiple choice questions are used in the Biology: Core Concepts, Earth Science, and Oceanography courses. This format includes the typical multiple choice question followed by a question that requires the student to defend their selection or refute the other choices. This gets at more of the students' understanding of the concepts addressed and begins to eliminate guessing at answers. The instructor generally learns a lot about student understanding although the students generally find this type of writing a challenge. They are not often asked why or how they understand a concept.

Open response essays are assigned in the Biology: Core Concepts and Oceanography courses. These questions are derived from critical thinking application questions presented in the textbooks currently used in these courses. Students can submit responses on paper or through e-mail. Immediate feedback is given regarding their opinions on the topics since right or wrong answers generally do not apply.

Finally, all of the above courses require literature and Internet/WWW site reviews. Students are given the opportunity to write a review and critique science content articles in journals, magazines, books and relevant Web sites. Students often use these reviews as background material for research papers or other

reports and build on their process of learning to write.

Chemistry Writing Assignments

Chemistry students are asked to write in several of their courses. As first-year students, they are required to write weekly short essay-type explanations of phenomena in General Chemistry as well as semi-formal laboratory reports in some sections. In their sophomore level class, Organic Chemistry, the students spend the last three weeks of the semester working on a project chosen from a list provided by the instructor and are required to write up the results in a formal laboratory report. They are also required to develop a short write up of the lab procedure before they come to lab. The students also have an option to write a paper to replace an exam grade. In biochemistry, they are asked to submit weekly problem sets which include short-to-medium length essays. The professor provides weekly feedback on these essays. In the laboratory section of Biochemistry, the students must submit five formal laboratory reports, the first of which can be re-written and re-submitted. All chemistry majors take Senior Research, which is a "W' designated course. They are required to write a paper in the style of a Master's Thesis in chemistry. The content includes the following sections: Abstract, Purpose/ Background, Materials and Methods, Data Presentation, Discussion/Conclusions, Full Citation List. Additional writing within the major is done in the "W" designated course Physical Chemistry, an upper level class. There are ten laboratory reports that must be submitted in "Journal of the American Chemical Society" style. These must be word-processed with all spelling and grammar correct. There is also one assigned research paper.

The authors would like to thank Al Davis, Richard Fralick, Wavell Fogleman, William Niekam, Fred Prince, Len Reitsma, Larry Spencer, Susan Swope, Mark Turski, and Joe Zabransky for supplying information and ideas about writing in the Natural Science Department.

Writing in Computer Science Courses: An E-Mail Dialog

Peter Drexel and Roy Andrews

25-NOV-1997 18:36
From: Peter Drexel—Computer Science Department: peterd@psc
To: Roy Andrews-College Writing Center: roya@psc

roya@psc wrote:
"How docs your department teach your majors to write? (as in, what kinds of writing are being assigned in computer science courses, both in and out of classes, and from which assignments do your majors learn to write about your discipline?)"

Our department uses writing in a number of ways. For example, several classes use a "journal" (better known as a lab notebook) to chronicle laboratory experiences. In the Software Engineering and Operating Systems courses, students create manuals for their software projects. These manuals have different audiences: users and programmers. So, students learn to write from different perspectives. With the advent of the World Wide Web, students use multi-media to express themselves. In the Computer Architecture class, students write summaries of technical articles, with their classmates as the intended readers. Lastly, students thoroughly investigate research topics using longer papers: 10 to 12

pages.

— peterd wrote:
"Several classes use a 'journal' (better known as a lab notebook) to chronicle laboratory experiences."

—What kind of experience is being chronicled in the lab notebooks?

Students chronicle the experience of wiring digital circuits or connecting up a network of computers. They describe, as in a journal or diary, what they did, what happened, and how they felt about it. In the more formal and scientific summary section, they follow a standard format when describing what was done and the results.

—What are the benefits of these lab notebooks?

The intended benefits include thinking verbally, learning how to communicate (i.e. write) in a technical environment and learning from a continuing experience.

—peterd wrote:
"In the Software Engineering and Operating Systems courses, students create manuals for their software projects. These manuals have different audiences: users and programmers. So, students learn to write from different perspectives."

-How are the audiences for user manuals and programmer —manuals different?

Users are most often "normal people." Programmers are not. :) Oh really? The students' projects are usually intended to be used by a non-technical audience. Think about something like a word processor or video game. The creators are probably technical

types with an understanding of the desired result. The users focus on the use of the entity the programmers created. They usually don't care how the entity works, as long as it works well.

—How must the writing for each of these audiences differ?

Users need carefully crafted documents that explain how to use a complex system. i.e. Start from here. If you want to do this then click on this icon. If this doesn't happen, then do that. A good index is critical. I think that the key for this kind of writing is to start simple then slowly build the user's confidence. A temptation, on the part of many programmers, is to jump into the elegant technical details. The resulting User's Guide then reads like a dictionary or encyclopedia. This kind of user document is most often confusing and not very useful. Technical writers have to put themselves in the moccasins of the novice users. This kind of documentation is not easy to write. However, the result is often easy to use and may even be "friendly" or fun for the user. An example of this is the _____*for Dummies* books. I don't care for the title but the result is definitely non-threatening and useful,

Technical Reference manuals should explain the software engineering rationale used in the creation of the system. So, technical types need carefully crafted documents that explain how the system was designed. Technical Reference manuals are often used to enhance or repair an existing system. Imagine fixing a modern automobile without some sort of technical reference manual!

-In your opinion, which of these audiences is most difficult to —write for, and why?

I bet the audiences are equally difficult to write for. Putting on the shoes of a novice is not easy for many technical people. They are often so immersed in the technical details, they find it difficult

to back up and look at their "baby" from the outside in. Moreover, for a similar reason (the technical details again), it's difficult to retrace one's steps and create the overview and logical flow that is necessary to figure out why the entity works the way it does, See, for example, the *Connections* series of TV shows.

-peterd wrote:
"With the advent of the World Wide Web, students have used multi-media to express themselves."

—Could you describe a few examples of this kind of expression
—and explain why it makes sense to accept this as "writing"?

Students can and do create web-based documents that contain not only text but images, animation, video and sound. These documents can be interactive. Would a prose writer consider this to be writing? Probably not. However, maybe in a modern context the answer may be yes. Isn't writing the creation of communication: a new way of "seeing" something? Web-based materials certainly are that. Take, for example, an interactive, web-based textbook. Not only can students read about the topic, they can interact with it: try experiments, perhaps look at the subject from more than one point of view.

Peg Eaton used to have her Software Engineering students and maybe the Systems Analysis and Design folks put their stuff on the web. Students would create documentation for various parts of the programs or projects. Then, students would share this with each other by means of web pages. Certainly the potential for distribution of their work is much greater on the web than on paper. Moreover, by using the web, these folks can collaborate in forming their communication. (Like what we are doing right now.)

-peterd wrote:
"In the Computer Architecture class, students write summaries of technical articles, with their classmates as the intended readers."

—Where do these articles come from? How long are they? How
-complex or difficult are they for the students to grasp? And
—what is an example of what one might be about?

The articles are from technical or scientific journals. These journals are the standard or authoritative literature in our field. Bill Taffe wants his students to do several summaries. If they do three summaries, two of them would come from articles found in conference proceedings or in journals that have titles like "IEEE Transactions of Parallel and Distributed Systems." The third one can come from the popular literature. *Byte* magazine is an example of such a publication.

The articles range in length from two to ten pages.

Journal articles are usually very dense or compact. As a result, they are often difficult for the students to read. Students attempt to "study" or "learn" the articles. In other words, they use the reading skills they have acquired during their past three years of college. Often, that doesn't fit well with the articles they're trying to summarize. Texts are written to explain concepts. Articles are written to succinctly summarize months of work. If you're not the author, or one of her colleagues, you're not likely to completely comprehend what she was writing about. (After 25 years in this field, I still find this hard to accept. I guess I'm too much of a teacher!)

-How long are the summaries they write?

One to two pages. The following is from Bill's web page about the article summaries (http://oz.plymouth.edu/~wjt/Architecture/

writing.html#summaries):

> A summary report is a short paper, one to two typed pages, which gives the essence of a larger, more substantial article on a particular topic. It conveys the most important points and conclusions omitting details and examples. A well-written summary is concise, but not merely an outline or a sterile, overly terse, point-by-point recapitulation of the original paper. Use your own words and basic technical language, but omit needless jargon and specialized acronyms. Be faithful to the original author. Convey his views and perspectives. A summary is not a platform for your views or for explaining what you know about a topic.

- Do classmates read the summaries and respond to them to give
- the student writer an indication of how much of the summary
- a classmate could comprehend?

Peer review is done on an informal basis. Students may help each other by reading the papers and making comments.

- What is most challenging for the students writing these
- summaries?

Shifting gears from the explanatory text material to the succinct nature of the journal articles is one of the challenges. A second one is: "What do I leave in and what do I throw out?" Students are supposed to assume that they are writing for people like themselves. So, without completely understanding the article they're summarizing, they tend to put in too much or not enough. Hitting the key concepts isn't always easy.

What do they have to learn to write a good one?

They have to learn how to communicate to "themselves." They

need to learn how to look at themselves from the outside in. They are used to being the audience rather than the performer or presenter. I guess they have to learn how to teach a bit. They need to figure out what someone like them probably knows and what they probably don't know. This is certainly a valuable experience. From 20+ years doing electrical engineering in industry, I know that knowing how to get information across to colleagues is a critical skill. (Many of my colleagues did not have this skill. We nerds were not supposed to know how to communicate! :)

- peterd wrote:
"Lastly, students thoroughly investigate research topics using longer papers: 10 to 12 pages."

- What kind of research topics? What are some examples?

This comes from an assignment I used to give my Telecommunications (CS416) students. These people came from a rather diverse background. I had majors in Computer Information Systems and Applied Computer Science. I also had students who were obtaining a minor in CIS. Their topics and papers could be on anything that was interesting to them while being sufficiently technical in nature. So, this was a way of getting them to personalize the course experience. Topics? Students wrote about things like cellular telephones, "The Ethics of the Internet, Global Positioning System (GPS)" and so on. I had them do class presentations for extra credit.

- Was there an expected or required form for these papers? Were
- they modeled on a kind of paper or article in the CS field?

The form I expected was: Introduction, Body, Summary and References. This form is quite similar to that used in articles the students might find in journals like *Communications of the ACM,*

IEEE Spectrum and IEEE Computer.

- Who was the audience for these papers?

I told the students to assume that they were writing for people like themselves. I told them to assume that their reader had taken the Telecom course. That way, the reader would be familiar with some or most of the technical jargon. However, that didn't mean they could fling jargon about willy nilly. I stressed the explanation of all jargon. Because acronyms are context dependent, the students need to explain the terms they're using.

- Thank you, Peter, for answering all my questions! I hope you
- enjoyed answering. What will you do now with this writing
- you've created?

When you first proposed the idea of writing a ten-page essay on how the Computer Science Department uses writing, I panicked. Who, me??? (The copy of Edvard Munch's "The Scream," that hangs in the College Writing Center, accurately portrays my reaction. ;-) However, and to my complete surprise, this painless exchange of ideas was a marvelous experience! Let's do it again some time. As a matter of fact, there's this paper I've been meaning to revise. Want to ask a few questions?

Oh yes. What will I do with our "creation?" In addition to submitting it to the *WAC Journal,* I'd like to put it on the web. Does the writing center have a web page? Perhaps we could make all the WAC papers available for others to see and use.

Now, about that other paper…

Writing In the Foreign Languages Department

Gisela B. Estes, Barbara Lopez-Mayhew,
Marie-Therese Gardner

Writing Assignments in Beginning and Intermediate German

by Gisela B. Estes

Creative writing is important in all my German classes. From the very beginning in my first year German classes, I assign short "Aufsatze" (compositions of 25 to 30 words) where the students are asked to describe their rooms, their favorite cars, a special friend etc., depending on the topic we cover at the time. Writing these phrases and words rather than only reading and saying them reinforces the learning of the vocabulary in context rather than memorizing a list of words, and the students are guided to use correct German grammar which helps to reinforce it. This, in turn, then improves the spoken language. I stress that students *"think"* in German and use the German syntax rather than thinking in English and translating into German. I encourage the students to write several drafts before they hand in their papers. Their papers are graded and handed back with comments and corrections. The students then have the option to rewrite their compo-

sitions for a better grade.

In the second year of German the "Aufsatze" (compositions) expand to include topics where the students not only describe simple things but also state their opinions and defend their positions. This is a very crucial time in their mastery of German. They are able to speak at an elementary level and are anxious to transmit their own thoughts. Their thoughts are, of course, in complicated English which they then want to translate verbatim into German. It doesn't work, At the beginning of the semester I stress that compositions should be written in the most elementary style using very simple main clauses. From there we add inverted clauses and then dependent clauses. The students have to mark the subjects and inflected verbs in their sentences so that they become more familiar with the structure of the German sentence. It is apparent immediately when students think in English and translate because their German comes out awkward and strange. The papers are returned with corrections and comments and graded and the students may hand them in again for a better grade. I tried at first not to grade the compositions when they were handed in the first time but only after they were rewritten. However, I found that the students did not put much effort into their first paper (which was not supposed to be their first draft) if they did not receive a grade. By the end of the semester (the third semester of German at PSC) most students are capable of writing a fairly decent German composition if they stick to the basic vocabulary and grammar rules. Furthermore, the ability to write correctly slowly carries over to the spoken language. During the Intermediate German classes the vocabulary knowledge increases rapidly and the students are then able to communicate reasonably well and with a certain amount of confidence.

During the second semester of Intermediate German, the fourth semester at PSC, I increase the required amount of writing and rewriting. Students' papers must be written on computers. Mistakes are marked and for the next draft the students have to

correct their errors on their own. Errors are marked again, this time with comments and some corrections. I sometimes use classtime and let students work in pairs to correct their work, which works very well. When the students hand in their papers the third time I correct everything. Students find the constant rewriting quite frustrating. In order to make this process more rewarding I decided to "publish" a certain number of their compositions in the form of a "book." The students are told which of their compositions will become part of their book and only those have to be rewritten until they are perfect. The themes vary; first the students write about themselves; then they write about topics we discuss in class. Sometimes a composition is written with a certain grammatical structure in mind. The assignments include a poem after we study a certain poem in class. It is interesting to see the different ways the students create. The writing as well as the speaking improve tremendously over the course of the semester. Toward the end of the semester, students create a front page for their book, sometimes designed by one student, sometimes by several or all of them, depending on ambitions and talents of the students. I add a first page and an index and the big moment comes on the last day of class when the students receive their finished books. At this point all the struggle writing and rewriting "Aufsatze" becomes worthwhile and the students are pleased and very proud about their own German book.

Writing Across the Curriculum in the above described way is helping my students of German not only to become better writers but also better speakers of German. I also believe that this process of learning to write correctly in German will carry over to their English composition writing and later to projects they will do either personally or professionally.

Promoting Writing Skills in Spanish

by Barbara Lopez-Mayhew

When students study a foreign language, particularly at the secondary and college levels, the acquisition of speaking and writing skills is by far more difficult than acquiring reading and listening skills. It is incredibly frustrating for them to be able to communicate orally or to write effectively in their native language, and then to be found speechless or unable to write a simple sentence in a second language because of limited vocabulary and grammar. If students are encouraged from the first day on to overcome their fear of seeming inadequate or "stupid" as they grope for a word when they speak, or when they write, their success in language learning will be greater. The student needs to be reassured that it is okay to make a mistake as long as an effort has been made to communicate and an attempt has been made to correct the mistake.

Aside from encouraging oral communicative skills, I highly promote writing skills at all learning levels of Spanish. Assignments are made at all stages of language acquisition, from very directed and short paragraphs at the beginning level, both directed and open written assignments ranging from one paragraph to a two-page composition at the intermediate level, to journal entries, short essays, and research papers at the advanced level.

At the beginning stage of learning Spanish, since vocabulary is limited and sentence structure with a correct use of grammar is very basic, students are usually encouraged to write directed sentences and paragraphs using set phrases and vocabulary that refer to certain topics and situations. For example, students will learn vocabulary about family members and physical descriptions, and then later be asked to describe their families. I strongly discourage students writing in their native tongue and translating, because inevitably the words chosen to be translated will be out of the realm of vocabulary just learned. After all, their Spanish grammar and vocabulary will be at a novice level in comparison

to the higher level of their native language. Also, the students are asked to write original scripts for skits to be acted out in class. These scripts are based on certain topics and situations sclectcd from the textbook being used in class (for example, going to a restaurant and ordering a meal), and they reinforce any grammar and vocabulary studied up to and including the current chapter. Students are encouraged to be creative. But they arc also reassured that they may imitate any sentence structureswith a set vocabulary that they and the other students have learned in class in order to make communication more accessible. I usually edit the scripts, because it is essential that the students at this beginning stage learn correct sentence structure, use of grammar and vocabulary.

The intermediate level of college Spanish builds on a vocabulary and grammar foundation assumed to have been already introduced and taught prior to entering the class. There is much diversity in the students' capabilities since prior language courses in Spanish range from a full-year of beginning college Spanish to several years of language study at the high-school level. Students' writing skills also vary since the student at the intermediate level may be a first-year student or a senior! I have found that if students have a strong foundation in writing skills in their native language, then they will be more successful writing in Spanish. If students are familiar with the mechanics and concepts of writing a good composition or essay, then this will carry over into the second language.

Students' written assignments at the intermediate level of Spanish will vary from answering personal questions in complete sentences taken from workbook exercises, to tests and exams that may contain directed and closed-ended exercises, to more creative open-ended exercises using word banks or topics with use of specific vocabulary and grammar. I've taken a more creative direction with students imitating an Ode from Pablo Neruda "Oda al tomate," and writing their own poem, and critiquing a foreign film. This year they viewed two contemporary award-winning

films, “Camila” and “Como agua para chocolate.”

After I provide a brief historical and biographical introduction, the students view the films and write a guided essay of five paragraphs. The students are reminded that a summary of the film is to be avoided. Their essay should communicate to the reader their personal criteria of a good movie, how the movie rates according to that criteria, what the plot is and whether it is worth telling, if there is a moral to be learned or whether the film is solely for entertainment, their impressions of the actors and actresses, the scenery, the music, and the filming, and their reason for recommending the film or not. They not only need to express their opinion but need to reflect and explain “why?”

The students are encouraged and guided into writing a more sophisticated essay, using a variety of verb forms and tenses, such as past and future as well as present. The use of a Spanish/ English dictionary is highly recommended as long as students remember to cross reference the words they are choosing, to be sure that the new words express the ideas they originally intended to convey, At the intermediate level, short and simple sentences can now be compounded into more elaborate sentences joined by adverbial conjunctions (for example *sin embargo, por consiguiente, asi que)* and coordinating conjunctions (*y, pero...*). However, realistically, the more students are adventuresome and creative, the greater the chance of making errors. Therefore, I avoid grading the first draft of compositions and essays and provide students the opportunity to revise their work. I read and edit the essay and then pass it back to the student with a guide of symbols that I used on the essay, so that the student can identify the error and self-correct the essay. Generally I feel that the student can be graded on content and form by the third revision. On rare occasions, a student may have written an exceptional essay which can be graded after the second revision. The opposite has also been proven true where the student has reached a plateau in his or her writing, and due to lack of skill and time will not be able to improve the essay regardless of how many revisions made. Usu-

ally, the second revision will give an accurate indication as to whether the student has understood the errors and has shown enough interest and skill in improving the essay.

When students reach the advanced stages of foreign-language learning, they are encouraged to continue what they have begun at the intermediate level. There may not be an immediate advancement in their writing skills, but if continuity and a variety of writing assignments are provided, the students will feel more confident and become more proficient in their writing. In the third or fourth year of college Spanish, the writing assignments should vary according to the course objectives and material. In our Advanced Spanish Course the students will continue to work on grammar points, vocabulary expansion, and samples of literature, which they will have to reflect on. Again, compositions and essays will be assigned to expound on a certain topic, characterization, plot, etc. Students are generally required to keep a written journal on either specific topics, or a question that relates to plot, theme, characterization, etc. They may also write a personal reflection or opinion on an assigned reading passage. When I read a journal entry, I will put my red pen away and "attempt" to read my students' written work with a focus on content, rather than grammatical correctness. On occasion I will underline a section or word(s) when my comprehension has been obstructed because of vocabulary and/or grammar misuse; and students are given a check, check plus, or a check minus depending on the overall quality of their journal entry.

At the more advanced levels of Spanish, students reinforce their grammar and vocabulary foundation by writing a research paper in Spanish. At this point, students are expected to have reached a proficiency level where they can research a topic, summarize and synthesize literary criticism, and apply information to a literary work. The students not only need to have a strong foundation in grammar and vocabulary, but should be able to create and support their own opinions, and be effective in communicating their thoughts by producing a lengthy written paper in

Spanish. They are continually encouraged to be creative and adventuresome, and to expand their communicative skills through writing. At the 400 level of Spanish, students who have reached an advanced stage will be able to write an extensive paper with relatively few grammatical mistakes, and will have developed their topic into a clear and well-structured paper. Again students' writing skills will vary within this advanced stage, and many will still need to focus on grammar and vocabulary as well as content.

I have found that if my students are encouraged to write, for example, whether it be a short paragraph on what they did last summer or a research paper on the portrayal of the woman in Spanish Drama, the students will overcome the language barrier and take the opportunity to develop their writing skills. They realize that although writing in a second language is a slower process than in their native language, being able to communicate in another language is quite gratifying. At first, the students will be challenged because of the inability to express what they are thinking. However, with time, practice, my reassurance and direction, they will develop adequate proficiency in the second language so that they will be able to communicate effectively by writing. After all, our goal in language teaching is to have students acquire capability in all four language skills, reading: listening, speaking and writing.

Writing in French

by Marie-Therese Gardner

I. Beginning Level

In beginning French, oral and listening skills are mainly emphasized; however, for complete and effective communication, students are introduced to the skills of writing.

The following are some writing assignments to introduce the students to writing in French.

A. Answer questions in writing using a five-to-ten word simple sentence to foster understanding as well as to practice sentence-level structures.

Example: Quel âge as-tu? J'ai vingt ans.
How old are you? I'm twenty years old.

B. Build a twelve to fifteen word simple sentence, including appositives with proper punctuation.

Example: Qu'est-ce qui sépare la France de l'Espagne?
Les Pyrénées, une chaîne de montagmes, séparent la France de 1'Espagne.
What divides France from Spain?
The Pyrenees, a mountain range, divides France from Spain.

C. Form a complex sentence with relative pronouns.

Example: C'est un artiste doué. Il vit à Paris.
C'est un artiste doué qui vit à Paris.
He is a talented artist. He lives in Paris.
He is a talented artist who lives in Paris.

D. Write about everyday happenings called, "Les petites communications," such as birthdays, birth and/or wedding announcements as well as holiday greetings. This leads the students to simple letter writing.

Example: a. Nous avons la joie de vous faire part de la naissance de notre joli petit bébé Joline.

We are happy to announce the birth of our pretty baby girl, Joline.

b. Tous nos meilleurs voeux pour la Nouvelle Année.
Our best wishes for the New Year

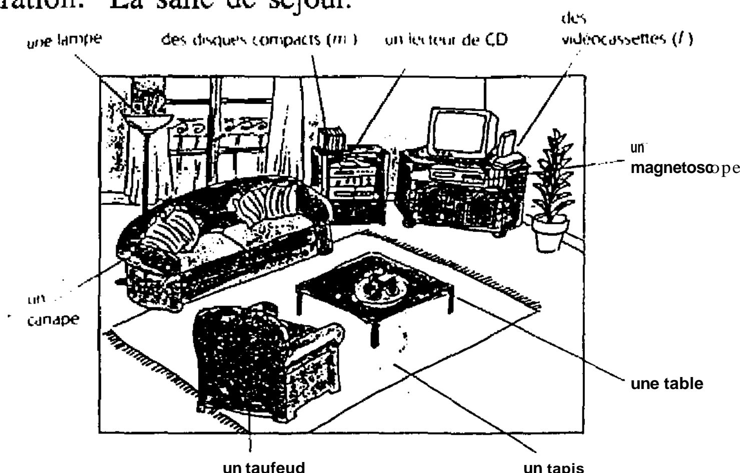
E. Create a short paragraph called, "la redaction," composed of a six-to-ten-sentence paragraph, using transitional words for clarity, pronouns and synonyms to avoid repetitions. Here are two examples of compositions used to achieve this goal.

1. At the early stage, description of content may be facilitated by using visual aids.

Example: You are to describe a room in your house. Choose the room you like best and tell us why.

J'aime la salle de séjour chez mes parents.
I like my parents' family room.

Illustration: La salle de séjour.



Rédaction: Voici la salle de séjour chez mes parents. C'est une grande salle avec une porte-fenêtre qui donne sur un balcon. Au

milieu de cette salle, il y a un grand tapis gris. Sur le tapis, il y a un canapé, un fauteuil et une table, tous, couleur champagne. A côté de la porte-fenêtre, à droite, il y a un lecteur de CD, des disques compacts, un magnétoscope et des vidéocassettes auprès d'une plante verte. A gauche de la porte-fenêtre, il y a une lampe à pied. J'aime beaucoup cette pièce parce qu'après les cours, je me repose et j'écoute du jazz.

Here is my parents' family room. It is a large room with a sliding door which opens onto a balcony. In the middle of the room, there is a large grey rug. On the rug, there are a sofa, an armchair and a coffee table, all champagne color: Next to the sliding door, to the right, there are a CD player, a VCR, and videocassettes, next to a green plant. To the left of the sliding door, there is a floor lamp. I like this room because after classes, I relax while listening to jazz.

2. Formulate statements which lead to paragraph writing.

Example: Je m'appelle Natalie.
J'ai seixe ans.
Je suis née à Toulouse, France.
J'habite Liancourt, près de Paris.
J'étudie à Paris au lycée Louis Legrand.
Je n'aime pas les sports.
Je préfère étudier.
Je veux être professeur de français.

My name is Natalie.
I'm sixteen years old.
I was born in Toulouse, France.
I live in Liancourt, near Paris.
I'm studying in Paris at Louis Legrand lyceum.

I do not like sports.
I prefer to study.
I want to become a French professor.

Rédaction: Je m'appelle Natalie et j'ai seize ans. Je suis née à Toulouse, France, mais j'étudie à Paris au lycée Louis Legrand. Je n'aime pas les sports mais j'aime beaucoup étudier. Je veux devenir professeur de français.

My name is Natalie and I am sixteen years old. I was born in Toulouse, France, but I'm studying in Paris at Louis Legrand lyceum. I do not like sports, but I like to study a lot. I want to become a French professor.

II. Intermediate and Advanced Levels

In the Intermediate and Advanced French classes, the students are to actively engage in the art of writing by developing skills in a sequential and logical order, and are guided and challenged in progressing from moderately difficult to complex writings.

"Le compte rendu" is a general term which includes several different types of oral and/or written exercises; namely short and long resumes, themes and character analyses, as well as expressions of personal evaluation of selected readings, movies and/or plays. These exercises lead to the writing of a term paper in the advanced grammar and composition level.

In the intermediate as well as in the advanced levels "le compte rendu" is introduced systematically in order of difficulty. Its main objective is to teach the student how to compose a paragraph with clarity, fluidity, and coherence; the second is to learn how to be observant and precise; third to be sincere and authentic. in their personal evaluations, and finally, to develop their own writing style using creativity to sustain interest. These exercises are read, examined, and discussed in class.

In both levels students are to practice the use of transitional words and sentences, simple and complex sentences, varied sentence patterns, selective vocabulary, and punctuation. These writings become more and more sophisticated in the advanced level.

III. Overview of Writing in French

The students are asked to keep an up-to-date file on all their written assignments as well as their corrections. They are also taught to keep a viable vocabulary list as well as a glossary of sophisticated vocabulary; to avoid "les mots-pièges" (traps) i.e. cognates which appear similar but are of different meaning (for example, "proposer" means in French "to suggest" not "to propose" as in English); to observe grammatical and linguistic rules, and, most of all, to be organized in their thoughts to ensure fluidity and coherence in their multipurpose writings.

The students must constantly struggle to conceptualize in French, not in their native language, to labor arduously over a piece of writing for whatever purpose or genre assigned, to observe all the qualities and techniques in writing a paragraph, to accept constructive criticisms from peer and/or teacher evaluation, and to meet deadlines.

The teacher must create a friendly ambiance among students and himself/herself in which students strive to overcome the barrier between the target language and their own, to reinforce self-assurance, to encourage progress in their efforts, to display patience and understanding when confronted with frustration, to endure the endless task of correcting papers, to make meaningful suggestions in order to improve their writing styles.

Upon the students' final achievement, there is a definite admiration between the students and the teacher filled with love, respect and jubilation, a self-rewarding satisfaction and accom-

plishment, and, finally, a well-deserved victory. Commitment and dedication create success.

Writing in the Social Science Department

Michelle Anne Fistek

The Social Science Department at Plymouth State College is a diverse department, but one of the threads which holds us together is our commitment to student growth, especially to the development of student writing skills, As I collected information from my colleagues, I found that the boring, assigned topic term paper of my college days seems to be a thing of the past. Each discipline addresses the challenge of teaching students to write like professionals within that discipline. Faculty are using writing to both "learn to write and write to learn."

Anthropology/Sociology

Faculty in anthropology and sociology make extensive use of writing in their courses. They use free writes to focus students before discussions. One professor uses a "longitudinal free write." Students at the beginning of the course are asked to identify a list of terms, geographical sites, people, and events. The professor adds to the list throughout the semester and then uses these free writes as a way of tying the course together at the end of the semester. Students see how much they have learned by reviewing early attempts at identifying these topics covered in the course.

Many courses also include the use of journals. Students respond to readings and lectures and create a dialogue with the professor. One professor has students write a paper based only

upon their journal entries.

Other assignments used include writing 15-18 page papers, with an emphasis on writing in the style of the discipline, especially in citations and other stylistic considerations. Faculty also require take-home essays as part of exams and do in-class peer review sessions on papers.

One faculty member took advantage of the new writing assistant program through the writing center. She chose a student who had taken her class last year, to work with her current students. Her writing assistant attended and participated in classes and joined the Writing Center staff. The writing assistant was available to the students from the class and also served as a regular Writing Center consultant. The same faculty member is encouraging students to write more creative papers in her upper-division courses, Plays, poetry and other forms of writing are encouraged in appropriate courses.

Geography

Geographers use a variety of writing assignments in their classes including short papers, and essay exams. One geographer has consulted with Roy Andrews, Director of the College Writing Center, on assignments and has had him come into classes to talk to students about the assignments. Papers are required to be written with attention to grammar, mechanics, length, sources, documentation, and citations in the form geographers use.

One particularly interesting assignment requires students to watch a video, take readings from assigned books and reserve readings and class lecture material and integrate them into a paper. The professor carefully reads the papers, makes comments and then the students may revise their papers for an improved grade. Results of writing assignments have not always met the expectations of the professor, and he finds himself frustrated by the poor quality of his students' writing.

History

History especially lends itself to using writing to evaluate student learning. Historians use a wide array of writing assignments to encourage student learning.

The research paper is a tried and true assignment. Students are asked by one professor in his United States History; 1928 to Vietnam course for a topic description on a Topic Decision Form. The form asks the student to list major ideas and resources which will be used. Then a month later, students turn in a Precis Statement, a concise summary statement of the essential ideas about their topic on a 3x5 card. Three weeks later, students turn in a Microtheme Statement, which is a one-page extended restatement of the precis. A rough draft is to be turned in after another three weeks. The draft must bc at least three pages long and contain citations and bibliography. The completed paper is then due one month later. Students are required to use proper grammar, spelling and other mechanics, as these will be graded along with the content. Some professors require students to summarize their papers and then present them to the class for discussion.

Another historian explores the distinction between primary and secondary research with her students in her New Hampshire and New England History course. The class explores resources available at the Library, such as the *New Hampshire Provincial Papers*. Students are introduced to the idea of using primary documents in historical research. This professor also introduces students to the techniques of oral history and how interviews can supplement historical research. Students are required to use at least one interview in their research papers.

One historian uses very clever questions for quizzes. He asks students to write their answers for the "Switzer Historical Encyclopedia Company." This encourages brevity, thoroughness and professional style of writing. This professor has recently tried having students write weekly essays rather than research papers. Students are expected to integrate lecture material, required readings and reserve readings. Students then have a collection of

essays that reflect their particular interests in the historical period dealt with in the class at the end of the semester.

Students are further encouraged to write, not for a grade but to show their interest in the class, by turning in either "gut cards," 3x5 cards with their reactions to course material or current events, or one-page reaction papers.

Another professor requires 8-10 page papers on assigned books, which may also require some outside research. Students are expected to integrate classroom learning into their critical examinations of these books. For instance, in Shapers of the Western World, they are to trace the ideas of Marx and Darwin in Emile Zola's novel *Germinal* and then assess if Zola is more of a Marxist or a Darwinist.

Political Science

My own discipline, political science, emphasizes writing as an essential communications tool. All of us were required to write extensively in college and graduate school, as well as now as professionals. We all require the same from our students.

We use a wide array of writing assignments to give students a taste of the different types of writing our discipline uses. Two of us have adopted essays which are peer reviewed and then compiled into a portfolio. This assignment encourages students to write as we do, doing multiple drafts which are reviewed by our peers. Several of my students have reported that they have used these essays as writing samples for internship, job, and graduate school selection processes. The students also review all of the course material throughout the semester, and see how others in the course write. I have found that not only has their writing improved, but they get to know one another, and there is more discussion about course material than in the past. There is more of a sense of camaraderie among our majors.

One of my favorite paper assignments follows course material closely. In my Public Policy Analysis class, students are required to write a paper about a problem they would like to see solved.

They define the problem, investigate alternatives and then advocate one or more solutions. The paper is to be addressed to whoever has the power to solve the problem. They then present their papers by "testifying" before the class. Their research becomes an integral part of the class.

My lower-division class writes essay exams and they do several take home essays for me. They also do an exercise to examine where their beliefs and opinions come from.

Another professor assigns in-class essays as well as longer (5-7 page) essays to be completed outside of class. The longer essays incorporate classroom lectures, assigned readings with outside research. He also gives students documents and then asks students to find similarities and contradictions from class lectures and assigned readings.

Other assignments ask students to use Political Scientist Robert Dahl's framework to compare and contrast the strengths and challenges of democracy in Great Britain and France. Students then do the same analysis on an emerging Central or Eastern European country.

Two of us have students investigate organizations that our courses center on. For my Public Administration course, they pick an agency; in Political Activism, students pick advocacy organizations. In both, we ask students to look at structure, purpose, goals and strategies.

Group projects are another variation, as well as journals. Finally, a very challenging assignment requires students to put together an extensive Annotated Bibliography on a U. S. Foreign Policy. Students then have to do an oral presentation based upon information gained from this exercise.

Social Work

Social work is a practice-oriented discipline with a professional research orientation. Students must learn to integrate theories and research from the classroom with practice in the field. Assignments in Social Work classes place an emphasis on

the style expected of those in the field. Social Workers must extensively document their activities. Students then are trained to accomplish the requirements of their chosen careers.

Social work students are given extensive experience in the techniques used by social workers. A primary activity expected of social workers in the workplace is to keep extensive records of their interactions with clients. Writing skills are necessary to clearly convey what actions have been taken and any recommended care or follow up that may be required. Group therapy is a technique often used by social workers. Students in Theory and Practice of Social Work Intervention 11 observe a self-help community group and are asked to analyze the dynamics of the group and phase of development which the group exhibits. They watch videos on groups and again analyze what they have observed. Finally, they simulate a group. They critique their own participation, as well as that of the other members of the simulated group. These groups are often video taped so that students may observe themselves and then comment on their own behavior. Students are given extensive guidance on these processes through instruction sheets, checklists and questions they must answer in writing.

Research papers are also required. Students must become familiar with the literature of the discipline to become effective social workers. One professor spends a lot of time on how to conduct a literature review and how to analyze, and synthesize articles. She requires students to produce a "publishable" paper by the end of the semester.

Social work faculty use typical Writing Across the Curriculum techniques such as freewrites and peer review. Students are urged to make use of the College Writing Center.

I am struck by the explicit requirements of students to integrate course material, readings and research with their experiences. Students are expected to investigate their own values and responses. They are much more directly connected with the material they are learning than in other disciplines.

One of the social work professors included an article in the

information he gave me about writing used in his classes. It refers to the healing power of writing. The article encourages the use of freewriting in class to help students organize their thoughts. The author found that freewrites improved class attendance and performance on exams. The author feels in the article that "Writing can be an invaluable skill in learning about and coping with the world. Under the right circumstances, writing promotes mental and physical health. Although not a panacea, the .judicious use of writing can improve the quality of life for many of us" (1). I couldn't agree more!

1) James W. Pennebaker, *Opening Up: The Healing Power of Expressing Emotions.* (New York: The Guilford Press) 1997. p. 191.

Writing to Learn in the Music and Theatre Department

Roy Andrews

Imagine yourself in a classroom, as a student, and the teacher of the Intro to Music course tells you he's going to put on a bestselling CD of 1994 and then ask you to do a freewrite. He starts up the CD and out of the sound system comes a soothing flow of chanting Benedictine monks, the rhythm loose and flexible, the melody without surprises, rising gracefully like a large tranquil bird and then floating down to rest for a moment before rising upward again and again.

"Okay," says the professor, "what does this music bring to mind? What does this music suggest to you?' And so you freewrite, stopping occasionally to listen more carefully and to search inward for the words *to* express what is happening in your mind.

This is one way Robert Swift uses writing to draw students more deeply into their listening experiences and beyond, into the insights of reflection. The following compilation describes several other ways writing is used by faculty of the Music and Theatre Department for teaching their disciplines.

Concert Reviews

Students attend musical performances and write up their observations or critiques. Jonathan Santore, who teaches an Intro to

Reading Music course for non-majors writes:

> I'm very interested in students experiencing the performance of live music (from rock concert to faculty recital to religious service to a night at a bar to dinner accompaniment) as fully as possible--I hope to move them from passive listening to active listening. In order to facilitate this, I specifically ask them to take note of the entire experience—what role is the music actually playing in what's going on? How's the audience responding to it? What does the audience seem to think its role in the proceedings is—how are they dressed, when do they clap, do they shout and if so when, etc.? I welcome specific musical commentary, but don't require it. Those students who are practicing musicians invariably surprise me with the perception of their comments—for example, a weekend guitarist in a punk band commenting at length on the relative merits of one student ska band over another.

Others assign concert reviews as well. Margot Swift's Music Skills students attend a musical event of their choice at the Silver Cultural Arts Center and comment on the performance, "giving their impressions of all aspects of the work," and Robert Swift's Intro to Music students "attend three live music performances and write critiques, the focus of the critiques being the melody, form, and rhythm of the music, and the balance between the solo and accompanists."

Performance Reviews

Performance reviews are for peers who perform, to help those persons improve. Kathleen Arecchi, in her voice classes, uses performance comment sheets that ask student reviewers to respond to the following: Tone Quality, Intonation, Technique, Interpretation/Communication, Stage Deportment, and Other. A sample response for Technique: "You lost a few words, but the softness might have been part of that. You put the intensity into

the softness. Sounded wonderful. Proves you don't need to be loud to make a song fill a room" (Melissa Hunt). A sample for Intonation: "Pulling back on volume doesn't mean cutting back on intensity. Go with sensations—if you feel a buzz, work with that buzz—it will help you find that place" (Katie Ludwig).

Teacher Observations

Robert Swift has students observe peers teaching secondary school music classes. The observers give a numerical grade of the teaching and write up a paragraph or two of supporting observations. In class Swift uses freewrites, such as "Think of one of the best teachers you ever had (music or otherwise) and what is it about that teacher you still remember. Try to write about one specific incident of this person's teaching that you remember." From writing and sharing these observations, a class discussion is generated on what makes good teachers.

Dramatic Writing

Students learn about the arts of playwriting and screenwriting by doing it. In dramatic writing courses, Paul Mroczka has his students do regular exercises for homework, as well as intensive assignments in class.

Responses to Dramatic Writing

Paul Mroczka writes:

> In some survey courses of drama, I have used writing portfolios with great success. The portfolio is a collection of essays, poems, dramatic pieces, etc., which serve as reactions to plays we have read and discussed. Each student writes 7-9 reactions; they then go through peer review in class; and then students select which of their pieces they will rewrite and include in their portfolio (which is usually five pieces). Portfolios include a banner statement, a table of contents, and a title page.

> In classes such as World Drama, Modern European, and American Drama, I give students the choice of writing a traditional research paper or a creative paper. Most choose the creative paper, which may be a burlesque of a play we've studied, a dialogue between two or three writers from different periods, a "where are they now" paper on characters 20 years after the play has ended, etc. These tend to be creative and revealing for students—showing how much they really understand and bringing new light to subjects.

Performance Studies Notebooks

Voice students of Kathleen Arecchi's at the 100-400 levels keep **a** performance studies notebook in which they write, according to the assignment sheet, "verbatim (word for word) translations of texts of each foreign language song studied during the semester; phonic (IPA) spellings of the text for both foreign language and English; a paraphrasing, in English, of each text, English texts as well as foreign; and a brief historical sketch of your character (in the song or aria), leading up to the time you express yourself in the song or aria being studied." Arecchi says that "the purposes of this exercise is to acquaint students with varied ways of approaching the study and interpretation of vocal literature through analysis of text and music and the application of acting techniques, as well as to explore ways of personalizing material while fulfilling the composer's content."

Also included in the performance studies notebook is "a paragraph giving a brief biographical sketch of the composer of each song or aria and any significant information about the song or aria studied (is it from a song cycle? what opera or oratorio? etc.)."

Program Notes

Kathleen Arecchi's students design and write the program notes for their senior recitals. These programs, distributed to

members of the audience, might include biographical information about the composers whose works are about to be performed.

Research Papers: Biography and Musical Analysis

Dan Perkins assigns, in his Music History course, a 6-10 page research paper on a composer and a specific piece by that composer that is particularly relevant to music history. The paper must have both a biographical section on the composer and a musical analysis section on the specific piece, like the writing music historians and critics do in scholarly journals and books.

Besides the requirements of the actual paper, the assignment has the requirements of a basic writing process built into it. Students must have their topic approved by Dr. Perkins, write a draft, share that draft with a writing consultant at the College Writing Center, pass a draft to Dr. Perkins for his comments, and then submit a final draft for a grade. As Perkins says, "It's a good learning experience for students who didn't know how to go through an editing process, who used to just write a draft and consider it sacred."

Formal Musical Analysis

Jonathan Santore writes:

> In the first four semesters of the theory/analysis cycle for music and music ed. majors, short prose assignments are interspersed with assignments in musical composition and harmonic analysis. In the fifth semester, our focus shifts almost exclusively to formal analysis—prose discussion of the overall shape of entire movements, works, etc. The final assignment in this course is a five-page paper analyzing a short work of the student's choice—any period, any style. One of the five pages can be a graphic rendering of the work's overall form; the rest of the paper should consist of detailed, grammatically and orthographically precise discussion of the musical glue which holds the work together,

which gives it shape in musical space.

One of my favorite papers in recent years analyzed a long "jam" by Phish; the student who wrote the paper pointed out that this lengthy, ostensibly free-form improvisation was held together by a steady underlying rhythmic pulse which, despite its reinterpretation in various time signatures throughout the piece, never changed. He discussed the means by which this pulse was established and reinterpreted, and also commented on the perceptual tension between the improvisatory nature of the work's harmonic and melodic materials and its tightly controlled rhythmic framework.

Was it this tension which drew him to the piece in the first place? Is it the presence of this deep musical structure which explains Phish's success? I dunno. However, it's the verbalization of these issues which affords us deeper understanding of an essentially nonverbal art form. The whole point of my primary teaching discipline, music theory, is the elucidation of musical structure. The verbal description of the ineffable is a central part of this discipline.

Using Writing in the Business Department to Pursue Excellence

Bonnie Bechard

Communication skills are crucial to organizational effectiveness at a time when business is adopting a quality-based philosophy and pursuing excellence in meeting the needs of their customers. Organizations utilizing the principles of quality are striving to empower their employees to make decisions to deal with problems that will lead to improvements in product quality and customer service. Successful organizations embrace the ideas of using as much statistical data as possible to make informed decisions. Much work is team-based and self-managed.

Many of the writing assignments across the business curriculum focus on problem solving and empowering students to make informed decisions. Students gain experience and skill in identifying and analyzing work-related problems and using both oral and written communication to present their solutions. They learn to conduct primary and secondary research and to perform data analysis using statistical tools. Some assignments are team-based and require self-management (with the instructor as the facilitator).

The menu of writing contained in the business program is extensive and varied including report writing, case studies, newsletters, press releases, research papers, team projects, business

plans, journals, essays, literature reviews, free writes, peer evaluations, training plans, and labor contracts. The remainder of this paper will provide samples of some of the assignments used in the Business Department to teach writing and will also demonstrate how writing contributes to the learning of business concepts and work place requirements.

Quality Team Project in Organizational Behavior

One of my favorite and most innovative research and writing assignments is the quality team project used in my Organizational Behavior course. Through this project students learn about team building and continuous process improvement tools and apply their research and writing skills to real-life problem solving. Students work in teams of five to study a system or process at Plymouth State College for the purpose of improving it. The LEARN process (Baugher, Stamford University, 1992) has been adopted as the model for this project. Students follow the steps below:

1. **L** ocate a problem. Students brainstorm for potential problems—systems or processes that could be improved on the PSC campus. Some of the past studies have focused on the following aspects of the campus: snow removal, registration, advising, shuttle service, security, cafeteria meal plans, bathroom maintenance, and instructional methods.

2. **E** stablish a team. Teams are randomly assigned and members assume various team roles including a team leader and recorder. (The team roles may be rotated among members). They select meeting times and locations (out of class) and keep a progress chart of their activities and summary of their meetings including a record of the responsibilities of each team member.

An important initial step in the forming of these teams is an icebreaker activity conducted early in the semester known as the

"Hotel Building" exercise. Each team of students is given an envelope containing the following materials: deck of 3x5 cards, ruler, scissors, stapler, tape, and marker. They are given 30 minutes to construct a hotel using these materials. Their team performance is judged on the strength and aesthetics of their hotel. The test of strength is measured two ways: first, a book is dropped from 3 feet onto each hotel. Those still standing in good condition are given the second test, a member of the class usually someone tall and of a sturdy build is nominated to stand on each hotel—some of the hotels are strong enough to withstand this test and others quickly crumble. This is a FUN activity and also an effective way to break the ice and observe group dynamics.

3. **A** ssess the current process. The instructor is the team facilitator and responsible for helping the teams to learn the methods of continuous process improvement. Primary research is conducted to assess the current process using a variety of research techniques including a survey.

4. **R** esearch the causes. Students use tools such as fishbone diagrams (also **known as** cause-and-effect diagrams) and pareto charts to analyze the causes and chart the results of their investigation.

5. **N** ominate a solution. Based on data gathered through research, each team makes recommendations for improving the current process.

These steps provide the framework for the final quality team report. The problem is defined, the results of the investigation are reported, and recommendations for improvement are presented for consideration by campus decision makers. These teams have been successful both in terms of their investigations and also with regard to team performance. Many teams have become highly cohesive and seriously committed to their work—two teams

recently were successful in getting their recommendations implemented on campus.

Communication Audit in the Graduate Seminar in Organizational Communication

At the graduate level, business students are taught advanced writing in the Seminar in Organizational Communication course. Students are introduced to proposals, business plans, and report writing. The most comprehensive, challenging, and labor-intensive writing assignment experienced by students is the communication audit report. The communication audit is a business research technique used by managers and consultants to evaluate the strengths and weaknesses of an organization's communication systems and activities. It focuses on assessing the quality, quantity, and timeliness of information, measuring the communication climate, and identifying networks of communication. The audit process involves gathering data using questionnaires, interviews, observations, focus groups, network analysis, critical incidents, and content analysis. This data gathering phase is followed by analysis and evaluation that lead to the preparation of a communication audit. Essentially the student is becoming a consultant to an organization. As a result of the audit, it is likely that the student will discover hidden communication problems, which if corrected can lead to improved morale, reduced costs, higher productivity, better use of technology, and changes in organizational culture.

Due to the hands-on, field-based nature of the communication audit, students must be able to apply and evaluate communication theories, concepts, and practices and at the same time demonstrate their ability to communicate their expertise to decision-makers within the organization studied through oral and written communications. It's a project that could easily overwhelm even graduate students without proper guidance. The success of this assignment depends on a thorough understanding of the audit process facilitated by the instructor and supported by the host organization. Likewise, the opportunity to review "model" communica-

tion audit reports is helpful to students in planning, organizing, and writing the content of the report.

Below are the steps that I teach students to complete the communication audit:

1. Locate the target of your study and obtain permission to conduct the audit. This requires a written statement of the audit outlining the overall purpose, services to be performed, types of methodology, and possible uses of the audit results.

2. Select the methods of research. Students are encouraged to select their methods to match the needs of the organization, as well as their own time, skills, and available resources.

3. Schedule the audit. Prepare a calendar of activities allowing time for the return of questionnaires and scheduling of interviews, as well as processing of data and preparation of the report.

4. Get started. Inform all members of the organization of the audit and its procedures. This is communicated by the student, but also by a letter of support from management.

5. Select participants and construct a survey. (A specific discussion of methodology is beyond the scope of this article.)

6. Analyze the data and evaluate the results. Once the data are collected, they must be analyzed and conclusions reached. Recommendations are based on strengths and weaknesses discovered in relation to the organization. Audit results are usually reported orally and in writing to top management and then in a condensed form to all members of an organization (both favorable and unfavorable findings). Results must be empirically based and reported clearly and objectively and centered around the needs of the organization.

Some of the most common areas of focus for past comunication studies have included organizational philosophy, mission, and goals; employee participation and decision making; communication climate; interpersonal relations; communication channels and media, and interdepartmental communication.

Many students tell me that this is the most challenging and intensive course work that they have ever completed but also the most rewarding and meaningful—it can even result in follow-up work as a paid communication consultant.

Newsletter Assignment in Principles of Marketing

In teaching Principles of Marketing, Professor Tom Fitzpatrick was searching for a writing assignment that would involve original research and the development of skills that would follow students into their careers. He created a newsletter assignment that met these criteria requiring students to write a newsletter for a company that they worked for or an industry that interested them.

One of the concerns that such an assignment presents is whether it stretches students' abilities and thereby provides a learning experience or whether it proves overwhelming to them. Professor Fitzpatrick has given the newsletter assignment to classes of first year and sophomore students at PSC and to adult learners at the College for Lifelong Learning. To his delight, the students have produced newsletters that are equal to professional newsletters in terms of content, style, and graphic design. This assignment integrates course content, computer application skills, current events, and writing/editing skills into a final product that the student could proudly show a prospective employer.

At the beginning of the semester, the students are asked to form work teams of no fewer than three and no more than four students. They are required to pick a company or an industry around which to build their newsletter. Frequently, one student may be working for an organization that would like to have a newsletter created, and the team agrees to work on this project. Each team member is responsible for one page of the four-page

newsletter, and their work must be reviewed/edited by the other team members.

In summing up, an assignment that presented some concerns about the degree of difficulty, proved a challenging and confidence-building experience for Principles of Marketing students. Additionally, it was not unusual for the newsletter to actually go to print and fulfill its role communicating the organizational message to consumers, employees, or membership.

Video Presentation and Report Writing in Business, Ethics, and Society

The Business, Ethics, and Society course uses real-life issues to teach ethical principles and concepts of social responsibility. The most effective teaching technique that I have found to do this is to videotape television programs such as *Dateline, 60 Minutes,* and *Nightline* that report on ethical or unethical corporations and their acts of social responsibility or irresponsibility.

In this course I assign a team project requiring each group of students to videotape such a television program on a current issue related to business, ethics, and society. From that video a 10-to-15-minute segment of the program is presented to the class, and the members of the team lead the class in a discussion of the issue presented in the video. This semester students selected the following issues: retail discrimination, unsanitary hotel conditions, automobile safety, unethical landlords and privacy violations, hospital billing and overcharging, illegal employment practices, gun safety, the pharmaceutical black market, cornea transplants and the rights of the living versus the rights of the deceased.

The second part of this assignment is to write a five-page report analyzing the chosen issue. To expand upon the knowledge gained from the television program, students use primary research such as interviews and conduct secondary research via the internet and library. They are also required to apply specific concepts, principles, and ideas from the textbook and classroom discussions

related to their issue.

Students are provided with the following questions to help them in analyzing and reporting on the issues:

- What is the issue? (Present key facts and take a stand on the issue).
- How active or dormant is the issue?
- Who are the stakeholders affected by the issue?
- What ethical principles and concepts of social responsibility apply to the issue? (Use these constructs to support your position on the issue).
- What options are available to business in managing the issue? Can they be integrative? Proactive? What policies should be implemented or practices modified?
- How should the issue affect the company/industry strategy?
- What influence can/should the business have on the political environment affecting this issue?

Students enjoy this assignment. It actively engages them in the learning process and brings the course to life. Most importantly it keeps them informed about current issues and teaches them ethical decision making. It is also an opportunity to develop and refine their presentational skills, analytical abilities, and writing skills.

Business Report Writing in Organizational Communication

The most direct way that undergraduate students are taught to write in the Business Department is through the writing (W) course known as Organizational Communication. For many years this course has been one of the most highly regarded courses in the business program. Alumni consistently acknowledge the value of the course and its contributions to their success in the work place.

Among the many skills learned in Organizational Communication is report writing—a major component of the student's work

is dependent upon the successful planning, research, and writing of a formal analytical business report. The skills learned in this assignment are readily transferable to various disciplines and careers. The assignment is interesting and challenging to students as it requires them to research and analyze real-world business problems. Topics are not assigned by the instructor but chosen by the students. Examples of topics include: new product research, management practices, employment policies, employee wellness, employee rights, business laws and regulations.

Planning the Business Report

When I teach this course, students are encouraged to explore current business issues related to quality, work force diversity, globalization, technological change, and ethics. These issues are then developed into problem statements. Each student must then identify the purpose, scope, and methodology for the report to establish the framework for the study. The final planning stages of this assignment involve developing a preliminary outline of content as well as establishing a work plan that identifies task and time requirements. The success of this project depends on students providing regular progress reports and the instructor responding with feedback.

Conducting Primary and Secondary Research

Students are taught that the value of their reports depends on the quality of information that is generated through primary and secondary research. One of the main differences between this assignment and other academic reports is the requirement of primary research. Students must go out into the real world and collect data that will help them to analyze their selected business issues and develop conclusions that support their recommendations. Common methodologies used by students include interviewing experts in the field; visiting organizations to observe their operations; contacting corporations to receive business documents such as sales reports, policy statements, and other correspondence;

and surveying in the field to gather data.

Analyzing Data and Writing the Business Report

Based on the primary and secondary data collected, students analyze their issues, form conclusions, and make recommendations to the targeted audiences. Students have an opportunity to use statistical/computing/graphic skills and practice their problem-solving skills as they work through the analysis of their business issues. The writing of the report emphasizes proper content and formatting, effective language and style, organization and readability as well as visual aids that complement the written text. One of the most important pages in their formal reports is the executive summary. Students are taught that business readers rely on an executive summary to provide an overview of the most important parts of a report and generally these summaries are widely distributed across the organization.

My most successful experiences teaching the course have been when students write their reports and go through the revision process one or two times. This involves extra time for students and instructors alike and necessitates keeping the sizes of classes to manageable numbers.

Concluding Thoughts

The writing in the Business Department promotes active learning through hands-on activities that apply theory to the real world and teach problem solving and decision making. The writing assignments emphasize team-building skills, research methods, critical thinking, and analytical writing. These skills follow students through their college studies and into their careers, contributing to their successes in the business world.

W-Courses in the English Department: A Goodbye Interview of Henry Vittum

Mary-Lou Hinman

"Where do I begin," I thought, fingers poised over the keyboard. I had been chosen to describe how English Department members teach majors to write for the discipline. I have great affection and admiration for my colleagues, who daily use writing to teach their students to think for themselves, to learn how to learn, and to be creative, whether they are writing nonfiction, criticism, fiction or poetry. How could I count the various techniques employed, much less describe them in a short article: the freewrites, the journals, the workshops, the portfolios, not to mention the myriad of paper assignments that encourage students to examine literature closely or to create literature that deserves to be read?

In my desperation, my mind wandered to various colleagues who have shared assignments and their excitement with me. With sadness, I thought of four men the English Department was losing to retirement. "No one is irreplaceable," people say, but I am not convinced. When I think of the English Department without Richard Chisholm, Russell Lord, Henry Vittum, and Gerald Zinfon, I get an empty feeling in the pit of my stomach. They were all members of the English Department long before I joined; three of them have been active participants in Writing Across the Curriculum from its inception; and all four have written articles for *The*

PSC Journal on Writing Across the Curriculum. We will miss them.

Then it hit me. One of their number, Henry Vittum, has consistently taught the two W-courses offered in our department, in addition to Advanced Composition, required of all of our majors. He, more than anyone, has been involved in teaching students to write for our discipline. He has been PSC's Distinguished Teacher, evidence of the great affection students, faculty and staff hold for him. What better way to examine writing in our department than to talk to the English Department's Master Teacher,

I met Henry in his office one day last spring to talk about writing. If you have never been in his office, you have missed a real pleasure. It is like his mind—uncluttered, organized, full of information, books, and his love affair with the Victorian period. In the comfort of that special place, we talked about his classes and his students.

"What should a W-course for an English major accomplish? What are its goals?" I asked.

"W-courses (in our department either Literary Criticism or one of the two Shakespeare courses) should go beyond other writing courses," he said. "They should be more intensive, more creative, and more individualized."

I had anticipated the "intensive" part of his response, but asked what he meant by "more creative" and "more individualized." He gave me the example of a journal assignment he uses in his Shakespeare classes. Each semester, Henry discusses a number of plays, but focuses on one, which the class returns to every week for continued in-depth study. Fall term that play was *King Lear.* Students were asked to assume the persona of one of the sisters (Goneril, Regan, or Cordelia) or one of the brothers (Edgar or Edmund) and keep a journal of responses from that character's point of view throughout the semester. The students wrote one entry a week, and Henry collected and responded to the entries weekly.

Students were invested in the activity, Henry explained, really entering the persona of the character they had chosen. (He thought it interesting that students did not necessarily pick a character of their own gender; they seemed to enjoy viewing the play through entirely different eyes.) On the whole, students showed excellent understanding of the character whose identity they had assumed, and they wrote with imagination.

For Henry's part, the journals allowed him to individualize instruction as he responded to each entry; in his words, "I carry on a dialogue with each student." And because he limited the entries to one a week, the work load for him was not excessive. Still, the students had the advantage of a sustained inquiry and became much more involved in the play under discussion.

Other writing activities from the Shakespeare classes intrigued me. From the beginning of the semester, students are assigned to the same discussion group. They are given written questions on a worksheet and asked to respond collaboratively in writing. They learn to listen to one another and to approach a problem as a team. Collaborative writing focuses discussion and creates fewer pieces to read by the professor. Henry also employs what he terms "working papers." He always gives a list of questions for each play's study. Students choose two of those questions and write response essays before the discussion. They may write more "working papers" if they would like.

As for the formal essays in his Shakespeare classes, Henry expects "much more critical insight" than he would in other courses. Still, he is always willing to talk to students about their ideas and will read drafts for students who prepare them in advance.

Our discussion drifted to the other W-course Henry teaches, Literary Criticism. There, he employs a variety of writing assignments and techniques to aid discussion, get students thinking, and inspire close reading. For example, he will often give his students a piece of literature not in the text and ask them to write a response to it. Then he introduces a critical theory and after the

discussion of the theory asks the students to revisit the piece they had written about previously. "Now what would you say," he asks, and students write again, displaying new insight.

The textbook used in Literary Criticism contains sample student essays which employ the critical approaches outlined in the various chapters. Henry has his students write a response to the student essay, and over the process of the semester, students learn how to read another's work and respond productively and critically. Then they try their own critical analyses of short fiction and read them aloud in class for peer response. During the process, they become less timid about sharing their work and more skilled at giving meaningful feedback to their colleagues.

In addition, students are often asked to, "write for a few minutes about...," a common freewriting technique to start students thinking, to give them something to contribute to class discussion, and to force them to look more closely at a given problem. It is writing that is not collected or read yet is nonetheless invaluable practice at the kind of critical writing the course demands.

Of course, the examinations for the class are critical essays where students show they have mastered the theory and are able to apply it in a meaningful way. The mid-term during spring term was anessay about *The Pearl* and the final a discussion of *Wide Sargasso Sea.* The examination essays, like every piece of writing for the course, are patterned after the critical techniques Henry has introduced to the class.

After our conversation, I thought about the variety of writing activities Henry employs. In the two W-courses Henry uses freewriting, journals, multiple draft essays, peer response, informal informational essays, formal critical essays, and collaborative written responses to discussion questions. And these are courses where content (either literature or literary theory) is stressed. Writing in his classes enhances understanding, allows for individual response from the professor, and teaches close reading and analysis. At the same time, students are learning what is entailed

in "writing for the discipline."

I've already decided to "steal" his journal assignment once Henry leaves; it is such a creative way to teach character and point of view. But there is one other aspect of Henry's teaching I also hope to inherit. At the end of our conversation I asked, "How have our Majors changed over the years?' He never missed a beat.

"Oh," he said. "They are much better than they used to be. My students are better every year." And when we as a faculty believe in our students, they do become better every year. When we demand a great deal of our students, they deliver a great deal to us. Henry Vittum figured that out a long time ago.