

Teaching  
Writing  
Across  
the Curriculum

FOURTH EDITION

PRENTICE HALL  
RESOURCES  
FOR  
WRITING

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## ■ Chapter 1: Introduction

### Purpose

This book is written for college teachers in all disciplines. It provides a brief introduction to writing across the curriculum (WAC), its theory and its practice, with the emphasis on practice—on teaching, on using writing as *a tool for learning* the subject being studied, and as a strategy for improving the confidence and the ability of students to communicate effectively. This booklet should serve as a guide to teachers who have been assigned, or who have volunteered, to teach a required "writing-intensive" course in their discipline as well as to faculty who decide to include student writing, whether occasionally or frequently, in their courses. Although my primary audience is faculty members in all disciplines, I expect this booklet to be useful to writing program directors in English departments who often coordinate writing-across-the-curriculum programs or who are responsible for integrating writing across the curriculum with a required first-year composition course. Also, I hope it will be useful to teachers-in-training and to graduate teaching assistants in all disciplines.

### History

Although writing in college courses is certainly not a novel idea, I associate its recent incarnation in WAC with the "language for learning" movement in England in the 1960s and 1970s under the leadership of James Britton, Nancy Martin, and their colleagues in the School Council Project. The focus in England was on writing in the schools, but when the concept moved across the Atlantic in the mid 1970s, it made its initial landings at the college level. By the mid-1980s, a national survey conducted by the Modern Language Association found that one-third of U.S. colleges and universities had a WAC program. Over the past thirty years, WAC has continued to grow on the nation's college campuses, and it has become a viable factor for educational reform in the nation's schools.

My own involvement with WAC began in 1976 at the end of spring term, when a biology professor telephoned me, a new English department head, to find out how a senior in medical technology could write a "semi-literate" report for him after receiving a grade of B from me in a first-year composition course. My first reaction, as you might expect, was defensive. Was he implying that I couldn't recognize "semi-literacy," that I had no standards for effective expression, that grade inflation had gotten the best of me, or, worse, that I was an incompetent teacher? Once I determined that his question was an honest one, that his anger—and he was angry—was not directed at me alone, but rather at a system of education that allowed such things to happen, we decided to meet together, and with the student, to see what we could learn about this thorny situation. How could a graduating senior from a selective university with a 3.3 grade point average be "semi-literate"?

What we discovered may not seem surprising today, but it surprised me at the time. As I read the student's report, I had to agree that it was unacceptable for a senior, soon-to-be a college graduate. And yet, the student, Mary, was an

A-B student in most of the courses she had taken over the previous four years. So what went wrong?

### **Attitudes and Expectations**

Here are just some of the things we learned as we talked with Mary. She didn't understand the nature and expectations of the assignment; she assumed because this was a biology course and not an English course, concerns for a focused introduction, purposeful organization, and attention to spelling and punctuation would not matter. If she had understood that they do matter (the biology professor assumed that seniors understood this and that he would not have to reiterate these basics of good writing), she could have delivered a much more effective report. And indeed she did, when offered the opportunity to revise. So, in this case, Mary knew how to perform the basics, she just didn't think scientists "cared about this stuff." How had she developed such an attitude? As we talked with her further, we discovered that she had not really written anything more than one or two pages long since her first-year English course and that she had never written a substantial scientific report until this professor's class. So during her last semester at college, Mary was doing the first significant piece of writing in her discipline.

It so happens that during this same period of time, our university was considering ways to improve the communication abilities of all our students. Several factors had led us to this point: national publicity about a literacy crisis ("Why Johnny can't read or write"), the advent of the "information society," complaints from employers about our graduates ("technically very competent, but weak on communication skills"), and a growing recognition that communication was an increasingly important and demanding aspect of work in and out of the academy.

The episode with Mary focused on several key issues for us. One change we considered was adding a required junior-level course in writing, taught by the English department, for all students; we realized, however, that Mary would pass such a course as easily as she had passed my first-year course but would continue to see writing courses as a hurdle, as something extraneous to her professional education, would continue to see sustained writing as something one does in English courses but not science courses, and would continue to do little writing in her major courses since her teachers could assume that others on the campus would take care of her writing needs. After all, hadn't the university just added yet another required writing course?

Another change we considered was adding a junior-level proficiency exam and requiring students to take remedial courses until they passed it. But we realized that our biology student would easily pass such a test and yet never experience her writing as an integral component of her professional education. And again, when she passed the test, we would be sending a message to the rest of the faculty that she was a proficient writer in all subjects in all contexts. We were beginning to realize that part of learning to be a biologist was learning to write like a biologist and that to be able to write like a biologist one needed to know what a biologist knows and what a biologist knows how to do. We came to believe that writing was integral to a professional education in biology (and



every other discipline) and not simply a generic skill easily mastered in one or two courses and then transferred effortlessly to all disciplines.

### **Teaching and Learning**

Just as this emblematic experience with the biology student kept us from making some costly mistakes, it also pointed us in a new direction: writing across the curriculum. A simple definition of WAC is that students use written language to develop and communicate knowledge in every discipline and across disciplines. In practice, it often assumes an interdisciplinary effort in which teachers from different disciplines work together to develop a comprehensive program that might include coordination among first-year composition courses, general education courses, writing-intensive courses in the major, and senior capstone courses. But the focus of early WAC programs was—and my focus here is—on teaching and learning and not on curriculum and assessment. To be sure, curriculum and assessment are important components of a comprehensive writing program, but WAC begins with teachers and students learning together through written language. To begin with curriculum and assessment would be to repeat the mistake we almost made in 1976 when we thought of adding a required writing course and an exit exam as a way of improving students' communication abilities, rather than beginning with teachers. WAC assumes that teachers, not curriculum and assessment, are the center of the educational process and the key to educational reform.

### **The Workshop Approach**

Thus, in 1978, we began a series of interdisciplinary faculty workshops, designed by Toby Fulwiler and other colleagues, as highly interactive sessions in which faculty shared the problems and the possibilities of writing in their disciplines and generated new and more effective ways to incorporate writing in their courses. Those first workshops lasted from two to four days, and each one was attended by about twenty-five faculty. Since that time, similar workshop models, with modifications to fit local situations, have been held on hundreds of college campuses across the nation. This booklet stems from my experience conducting such workshops. It's based on the knowledge I've gained from colleagues in nearly every discipline—accounting and zoology, English and communication studies, engineering and forestry. And it's based on the convenient way I've learned to organize these workshops into two interrelated parts: writing to learn and writing to communicate. I recognize that this division is arbitrary—that communication goes on in writing to learn and that learning goes on in the struggle to communicate, but I've found that this distinction often enables teachers to generate new perspectives and strategies in their teaching. I also recognize that to talk about teaching and learning in a generic way is fraught with difficulties, because teaching and learning changes in each situation—when we consider what is being taught, by whom, to whom, for what reasons, and under what conditions. I've attempted to provide examples from a variety of sources so that teachers in widely differing situations might be able to relate and adapt my suggestions to their own situations. I've constructed this booklet, then, along the line of the workshops I conduct, with plenty of student

## ■ Chapter 2: Writing To Learn

Many readers will expect that the first item of business in this section will be a definition of "writing to learn." What exactly is it, anyway? I ask such readers to be patient but also to be active participants in this inductive learning process—one in which we'll build definitions through examples and experiences. Proceeding in this way, I hope that whatever knowledge is gained will come with an understanding of implications and limitations. Although I will offer numerous practical suggestions for teaching with writing, I want to forgo the temptation to say "Do this on Monday morning: it's a can't-miss technique," as if good teaching is simply a listing of successful techniques and assignments. Rather, successful assignments are embedded in the unique goals of each course and are integral to the building of knowledge in that course. Effective writing assignments are not "add-ons" to fulfill a writing requirement or to generate 20 percent of a final grade.

### "My Utopia": An Example

Let us begin, as I often begin a faculty workshop, by reading together a piece of student writing. Here is some context for the writing that follows. On the first day of class, a philosophy professor meets the forty students in his Introduction to Philosophy course. The students are mostly engineering majors fulfilling a humanities elective. He goes over the syllabus and course goals and explains that the first unit of the course will be on the subject of utopias. During the next month, the class will read Thomas More's *Utopia* and B. F. Skinner's *Walden Two* as well as some relevant essays. Teacher and students discuss briefly their initial concept of utopia, and then as the class ends, the teacher assigns the first piece of writing: "As a way of getting us started, please write a brief essay on what your utopia, as you conceive of it right now, looks like. What are some of its features? Now this writing should have a quick turnaround time, so it is due Wednesday, our next class meeting. I would like you to spend about a half hour or so writing it—just about three hundred words—no library research needed—just your own ideas—get them down on paper—for me and your classmates to read."

On Wednesday, most students bring their writing to class, one or two handwritten pages. Before we read the one written by Thomas, please reflect on the three prompts I ask workshop participants to consider in a brief written response (in their workshop notebooks).

1. Give your reaction to this student's writing: what you found interesting, surprising, troublesome, and also strengths and weaknesses.
2. Consider how you might use such student writing in your classroom.
3. Consider how you would respond to this student.

Here is the essay submitted by Thomas:

### **My Utopia**

From my point of view the perfect society would be a small community nestled in the mountains—away from the masses of people and cities. There would be small businesses, but mainly crafts would be the large portion of employment. It would be a closed society in the sense that any one who didn't live there could not come in and find employment. Therefore only enough people could live there that there was jobs available for and there were only enough jobs to support about 5,000.

The economic nature would be as follows: All jobs would have a fixed salary the only way to get increased wages would be to move up in position or status. There would be no inflation because all prices would be fixed. There wouldn't be room for competition because there would only be one firm or one shop for each craft. With no unemployment or inflation people would never have to worry about a decrease in their standard of living. Everyone can still be in whatever class they want, as far as lower, upper or middle classes, as long as they are productive members of society. You must want to earn a living in order to live here. There are no taxes: no welfare programs—the incomes received would allow them to purchase anything they want and they would be able to work as long as they want, age wise.

The government would be composed of a few people who would act more like a committee than a pres., vice pres., parliamentary group. Their purpose is to see that the fixed prices were followed and act kind of like a supreme court. The only rules would be the 10 commandments and if any of these are broken, this is cause enough to expel them from the society.

Faculty participants read and reflect on "My Utopia," and then we hold a brainstorming session in which differing perspectives are encouraged and in which criticism of one another's initial reactions is not allowed. Some of the most frequent reactions to the first prompt include the following:

This student is so illiterate, he should not be in college.

I wish half my students could write so well.

I'm put off by all the errors in spelling, grammar, and punctuation.

It is well organized, with a beginning, middle, and end.

His utopia sounds appealing—back to nature—like Thoreau.

His utopia sounds totalitarian, worse than communism.

He honestly gives his first reaction as the assignment asks.

Poor logic and confusion in thinking: who would choose to be in the lower class? No "room for competition," but you can still "move up"?

Lots of questions need to be answered and issues clarified: How would people (over 5000) be kept out? Would there be any children left if one disobedient act got them expelled? Is he saying people can stop work at age 22? People can have low wages yet buy anything they want? What will they be able to buy besides "crafts"?

## Writing and Thinking



### Writing To Learn

- Discovery thinking
- Invention: uttered, generated
- Writer-based prose (explains matter to oneself)
- Audience: self and trusted others
- Personal language in social community
- Teacher as facilitator
- Personal knowledge
- Forms: journals, field notes, rough drafts, blogs

### Writing To Communicate

- Critical thinking
- Revision: crafted, clarified
- Reader-based prose (explains matter to others)
- Audience: distant
- Formal language of discourse community
- Teacher as professional
- Contextual knowledge
- Forms: essays, reports, business letters, web publications



## Discovery and Critical Understanding

Look first at the left column of my "Writing and Thinking" chart. The promulgation and practice of "writing to learn" throughout the curriculum is one of the major contributions of the WAC movement. When a teacher designs a writing-to-learn assignment, such as "My Utopia," he or she offers, as James Britton has said, an opportunity "to explain the matter to oneself," when the "matter" can be net ionic equations in chemistry or the Battle of Gettysburg in history. A writing-to-communicate assignment, on the other hand, challenges the student "to explain the matter to others." Following Britton's reasoning, we can understand the difficulty, if not the impossibility, of explaining the matter to others before you have explained it to yourself. And because writing to learn has traditionally been underutilized in instruction, the WAC movement encourages adding writing to learn to most courses for two principal purposes: (1) students will learn the material better and (2) this better understanding will lead to improved written communication.

I return to the left column of the "Writing and Thinking" chart to annotate it briefly:

- *Discovery thinking*: Writing to learn is associated with discovery writing and drafting—Thomas discovering (provisionally, of course) what his utopia might look like.
- *Invention: uttered, generated*: An early part of the writing process—make words and ideas visible so they can be examined, played with, or discarded.
- *Writer-based prose*: Writing that usually makes sense to the writer—who is close to the language and the context—but that may not hold much meaning for others.
- *Audience: self and trusted others*: Writing that may never be shown to others, as when a physicist keeps a private journal of speculations and imaginings, or that may be shown to others who can be trusted to be supportive readers—such as a teacher in the role of trusted mentor, or a reader who expects to see mistakes and incompleteness as part of the learning process (in writing, in mechanical engineering, in everything else) but who reads looking for fresh ideas and new insights in order to encourage further learning.
- *Personal language in social community*: This is the language that writers have easiest access to for thinking—the language students own as they enter our classes—this is a powerful language for learning, and teachers as mentors should allow students access to it (as opposed to insisting on formal academic language in writing-to-learn assignments).
- *Creative*: I associate writing to learn with right-brain activity and creative problem solving.
- *Personal integration of knowledge*: Writing to learn assists in integrating new knowledge into a writer's existing system of knowledge and beliefs—a major component of "explaining the matter to oneself."
- *Forms: journals, field notes, rough drafts, blogs*: And I might add freewrites, fastwrites, one-minute essays, and other informal writings designed to encourage personal reflection and active engagement in learning, such as "My Utopia."

Writing to learn privileges the learner's language and values. Writing to communicate privileges the reader's language and values. The primary goal of writing to learn is *to please the writer* by leading to new discoveries, information, and perspectives. The primary goal of writing to communicate is *to please the reader* in providing new discoveries, information, and perspectives. This may be a single reader, as when an employee writes a memo to a supervisor, or it may be a community of readers, as when a psychology researcher writes an article for a specialized journal in behavioral science. In each case, the writer wants to be heard and taken seriously, and the shift in purpose and audience from writing to learn makes additional demands on the



writer. Although I will discuss writing to communicate later in the book (47-68), let me annotate the right side of my chart for comparison's sake.

- *Critical thinking:* Writing to communicate is associated with the self-conscious arranging, manipulating, and presenting of words and ideas for some rhetorical purpose (to inform a reader, to persuade a reader).
- *Revision: crafted, clarified:* A later stage of the writing process—sentences, ideas, thinking are clarified by being reworked.
- *Reader-based prose:* Readers want to process information effectively and efficiently, and thus writers attempt to conform to reader expectations on such things as structure and conventions.
- *Audience: distant:* The writer is not close to readers, who are often judgmental, so the writer must earn their reading time—teachers read student writing critically as mentors encouraging revision, and they read student writing in their role as evaluators for how well it meets readers' expectations.
- *Formal language of discourse community:* Writers enter and write the language of a community or communities—as writers move from being students of geology to becoming geologists they learn the discourse conventions of writing and thinking as geologists do.
- *Analytic:* I associate writing to communicate with left-brain activity and systematic problem solving.
- *Objective understanding of knowledge:* Writing to communicate often means integrating the writer's information or perspective into a reader's existing system of knowledge and beliefs—as when an astronomer reports the discovery of a new star to other astronomers.
- *Forms: essays, reports, business letters, web publications:* And other forms designed to enhance the transfer of information from writers to readers.

At the conclusion of my "Writing and Thinking" chart, I relate writing to learn and writing to communicate to both discovery and critical understanding because I realize that these processes are interrelated and overlapping. Certainly writers discover new ideas in the act of revision and use their creativity in performing analytic tasks. My dualistic chart is not meant to be a theoretical construct as much as a heuristic for thinking about different ways to help students write to learn and learn to write.

I also use this chart as a framework for looking at student writing in new and productive ways. For example, Thomas in "My Utopia" has been given a write-to-learn assignment, and he has responded appropriately by taking a half-hour to jot down some initial thoughts without paying too much attention to such things as logical coherence or editing. I believe that teachers who give such

assignments should recognize that they generate fairly impromptu personal reflections in writer-based prose and therefore should respond to them in the teacher-as-mentor role, not worrying about spelling errors (in this kind of writing) but only about what kinds of responses will encourage further learning. Conflict arises when the teacher assigns writing to learn and then the teacher (or other readers) reads it as writing to communicate—as a thoughtful, crafted, final product. This is undoubtedly what happens when some faculty at workshops see Thomas's writing as unsatisfactory in almost every way. On the other hand, Mary's senior biology report offers an example of poor communication between teacher and student. Mary naively thought that her biology professor would accept a discovery draft of her scientific report as a successful final product. She had never turned in such a lengthy report to him or any other biology professor. Her report rambled from point to point in no logical order, and she was not attentive to reader-based needs. The professor had assigned a write-to-communicate assignment, and he read with professional expectations that surprised Mary, but once she was made aware of them she was able to write a report that better satisfied the reader's needs. If James Britton is correct, then students who write discovery drafts are engaging in a productive exercise that ought to be encouraged—they are getting their ideas down so they can better craft them and understand them. But they should understand that discovery drafts are usually unsatisfactory as final drafts of writing that must conform to reasonable reader-based needs. Teachers can help students in a variety of ways to understand the processes by which scholars and researchers generate and communicate knowledge by distinguishing between these two kinds of writing, both of which are necessary and valuable to most of us.

### The Example of Thomas Edison

Inventor and entrepreneur Thomas Edison was a prolific writer. Most workshop participants are surprised to learn that five and a half million pages of his surviving laboratory notebooks and other papers are currently being studied by scholars. Edison is well known to most of us as a famous "hands-on" engineer, working long hours in his laboratory, but we don't usually think of him as a "writer." And while he did not often write for publication, he wrote hundreds of pocket-size notebook pages per week. These notebooks are filled with speculations, plans, critiques, rough technical drawings, thinking on paper, visualizing on paper. They are written in writer-based prose to Edison himself as audience or sometimes to his colleagues in his laboratories. Here is a brief section from an entry in his Greenwich Cable Telegraph Pocket Notebook of June 10, 1873:

ascertain if some magnetic arrangement might not be made so as to be included with the circuit ~~to~~ ~~we~~ so that it would exactly neutralize the static charge in So many knots of Cable if these devices Could be put in the Cable & their Capacity would remain as Constant as the Capacity of the Cable = it would be valuable =

Try two ~~insulated~~ disks of rubber on which is a strip of Zinc & of Copper Connected together= This stands still now another disk 100th of an inch from it revolves slowly & also with immense rapidity This disk has one Strip Copper. See if influence would generate E. & Connect to Sensitive Galvanometer= (*The Papers of*