

# COMPUTER WRITING AND THE DYNAMICS OF DRAFTING

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In "Analyzing Revision," Lester Faigley and Stephen Witte wrote that "revision cannot be separated from other aspects of composing," since writers "move back and forth among the various activities of composing . . . and frequently review what they have written and make changes while in the midst of generating a text" (400). I quote those words, here, because they compactly summarize one of the key insights composition research has offered into the dynamics of writing: that the processes of observation and change we usually call "revision" are central to the margin-to-margin production of words during drafting. Nancy Sommers put it this way following research into the "Revision Strategies of Student Writers and Experienced Adult Writers": the revision process is "a sequence of changes in a composition—changes which are initiated by cues and occur *throughout* the writing of a work" (380, emphasis added). And in "A Cognitive Process Theory of Writing," Linda Flower and John Hayes wrote that "revising and evaluating" are "able to interrupt any other [writing] process and occur *at any time* in the act of writing" (374, emphasis added).

How these productive interruptions work during drafting has been the object of a good deal of research. For instance, in "Reflection: A Critical Component of the Writing Process," Sharon Pianko reported how her subjects:

paused, rescanned, then paused again. These behaviors were indicative of certain mental processes: a pause was to plan or 'rehearse' . . . what to write next . . . , a rescanning to orient oneself with the writing to see if the

'rehearsal' was a fit, and again a pause to reformulate' or revise the mental plan or 'rehearsal.' (276)

And on the basis of her research, Sondra Perl described how:

we begin to move along, sometimes quickly. Other times, we need to return to the beginning, to reread, to see if we captured what we meant to say. Sometimes after rereading we move on again, picking up speed. Other times by rereading we realize we've gone off the track . . . and we need to reassess. Sometimes the words are wrong and we need to change them. . . . Sometimes in rereading we discover that the topic is 'wrong,' that the direction we discovered in writing is where we really want to go. (367)

What such passages make clear, I think, is that revision is the heart of writing in that drafting "is a kind of growth that can only occur as writers sense the need for change, incorporating changes into the developing text as they write. In other words . . . "drafting is a form of changing" (Gebhardt 81).

Obviously, revising a completed draft involves consciously trying to make changes: for instance, Reordering, Adding, Substituting, and Cutting, in such things as Ideas, Organizing Principles, Connectors, Sentences, Words, and Punctuation. But such changes also take place during initial composition of a draft—in the eye-blink long pauses, brief rescannings, and moments of reflection that have interested Sommers, Perl, Pianko, and others. During such times (and even as their hands continue to move across paper or keyboard), writers can see how their drafts are developing, intuitively compare the results with their intentions, and try to make adjustments. During drafting, to put it differently, writers constantly make "spontaneous decisions—where a sentence is heading, where it has ended, where emphasis has or has not occurred, where the pace lags, where it would be better to scratch out and start over" (Irmischer 32). Such intuitive decisions and the changes they prompt are, I believe, the essence of the dynamic flow of words during drafting.

Against that background, the title, "Computer Writing and the Dynamics of Drafting," probably begins to make sense, if you are a computer writer that is. For one of the things writers usually discover as they work with computers is how a word processing

computer lets a person really use the growth-through-change of drafting. I will elaborate on that point in the rest of this article and try to suggest that computers can be powerful tools to help students understand—and use—the dynamics of drafting.

Computer writing can be a valuable resource for writing teachers because it makes the growth-through-change of drafting so do-able and so visible. You can expand on an idea or add supporting ideas or more precise words by simply moving the blinking light of the cursor to the appropriate point and typing. You can see changes happen in idea or structure or vocabulary—the text expands to accommodate them, or the cursor seems to absorb unneeded material. You can, with a few keystrokes, move a concluding paragraph to the beginning of a paper to see whether it might serve as the kernel of an introduction. You can “try out” different organizational arrangements by reshuffling the sections of a draft. You can leave a draft thinking it is complete, but return later to add new supporting material. And you can save the different drafts that result from such changes and decide later which draft to work toward a completed paper.

I am not trying to be exhaustive with those examples. But they do suggest that computer writing lets a person with decent “keyboarding” skills really use the dynamics of drafting in a very different way from trying to crowd later thoughts between lines or into margins as a pen-and-paper writer must. I have sensed this very sharply, drafting in front of the computer in my study. My students have experienced it as they have paused to expand a draft, or returned later to add information or reshuffle a paper. And Warren Self, a teacher and computer writer, has described the experience this way:

My words move up and down and across the screen as I keep adding words to the text or as I scroll forward and backward through the text. My relationship with those words is different from my relationship with words I have written with a pen or a typewriter. . . . They are less like permanent images that must be effaced to be altered, and more like fluid matter capable of many possible shapes and arrangements. Sensing the words' transience, I develop less of an attachment to them. That detachment makes it easier for me to attempt alternative arrangements. Moreover, the capabilities of the

computer make it easy for me to cause the words, sentences, and paragraphs to assume different arrangements on the screen. . . . When I am working with my composition on the screen, the words are written in light, not in ink. Their transiency makes it possible for me to manipulate them without feeling as if I have to labor to alter concrete form. Moreover, I know that whenever I make any of these changes, I am merely experimenting; I am not making any permanent change. . . . (19-20)

*Ease of change* is part of what Self writes about there. But what is more important for writing teachers in that quotation is that the ease serves as an incentive to make changes. Words on a computer monitor seem “less like permanent images that must be effaced to be altered, and more like fluid matter capable of many possible shapes and arrangements,” Self writes—his metaphors implying that the fluidity helps him want to make changes. Then he becomes more explicit: the changed relationship of writer and words lets the writer change words “without feeling as if I have to labor to alter a concrete form”; it “makes it easier to attempt alternative arrangements.”

This incentive to change is one reason computer writing can be a powerful aid to writing instruction. It is not only that the computer can help a writer easily reorganize a draft, or insert material, or modify the conceptual core of an argument. Besides such things, *knowing* that the computer makes such tasks easier can help writers make changes while they draft. As William Marling noted after interviewing college students in an experiment on writing with computers, “they felt more free to put down their first versions of a sentence [than when they drafted at typewriters], because the word, sentence, or paragraph could be erased instantly. They said it was easier to see the conflicts between parts of a sentence, idea, or paragraph and to work them out on the screen” (19). I have seen this many times in my own writing and as I have worked with students. Put in front of a blank computer screen, students with some knowledge of word processing are more likely to begin to write something—and much more likely to insert, delete, and move material around as they draft—than students usually are when they sit before a blank sheet of paper or in front of a typewriter.

For the reasons outlined in the past few paragraphs, it seems

to me that drafting at a computer can help some students learn to make fuller use of the growth-through-change of drafting. But it would be naive to fill a classroom with computers, lock our students in, and wait for effective writers to emerge at the end of the semester. Writers who have been taught that revision only happens after a draft is complete can carry that misconception into their computer writing practices. Those who decline to change anything but spelling, punctuation, and word-choice can turn a word processing computer into a device for surface-neatening. Writers who seldom reorganize drafts when working with pen on paper can simply treat a computer as a bulky typewriter and never use its reshuffling powers. And, of course, students who cannot type will not benefit fully from computer writing until they have mastered some lower-level keyboarding skills.

So, then, no matter how much faith we may have in the power of computer writing to orient students to the dynamics of drafting, good sense and professionalism require us to ask how we can use computer writing to help students learn to make *substantial* changes—expansion of details, modification of concepts, reorganization—while they draft, rather than concentrating on word choice and mechanics. My general answer to that question is that we should become fluent computer writers ourselves so that we can use word processing computers to *show* students the dynamics of drafting.

For years, Donald Murray has urged teachers to demonstrate and demythologize writing by revealing their own struggles and failures as they “write on the board in front of the students, trying to develop a paragraph, editing and changing the words according to student suggestions” (22). Why not substitute a huge-screen monitor for the chalkboard or just let students cluster behind us while we draft at computers? Or have them watch the monitor while we give an illustrated lecture on the kinds of changes writers can make in brief pauses in their drafting. Or let them observe how we would pick up the thread of a student’s in-progress paper and continue drafting. At the very least, this approach would give a clearer impression of the writing process than a conventional lecture accompanied by static drawings on a chalk board or overhead projector. And the approach could bring far greater benefits, if, as William Wresch notes in *The Computer in Composition Instruction*, “it only takes seeing a few sentences move

around on the screen” for some students to realize “that writing is a very dynamic art” (4).

One key to using computer writing to demonstrate this dynamic art is being comfortable drafting at a computer. But this is not hard if you are comfortable writing at a typewriter and if you have worked with a word processing program long enough to have absorbed its common commands. Computer writing pedagogy also requires a good grasp of the writing process and a sense of how specific features of computer writing can be used to demonstrate the growth-through-change of drafting. To see what I mean, consider these five “basics” for computer writing teachers.

First, computer writing teachers need to be nimble with the cursor-control keys and to have an intuitive sense of the cursor’s power in computer writing. James Britton’s phrase “writing at the point of utterance” implies a great deal about the fluidity and dynamic quality of writing, in which “the formulation, and the setting down of words . . . , go on together and are interdependent” (44). Writing at the point of utterance is an especially apt metaphor for computer writing teachers. We can show students that one writes at or with the dancing point of light on the monitor. At this point, words appear or disappear, and paragraphs or longer chunks or text enter the middle of drafts from files saved on disks. *With* the cursor’s point of light we do computer writing—lay down words, expand ideas, eliminate text, move material around, etc.

Second, computer writing teachers need to realize that it takes time to adjust psychologically to computer writing: for instance, to the fact that words still *are* in the computer even when they scroll off the top of the screen; or that clearing the “memory” of the computer does not injure material stored on a disk; or that the computer can simplify such tricky typing tasks as centering, setting up tabular columns, and making sure pages end at desired points. Some students learn these lessons quickly and naturally, especially if they have decent typing skills and are using “user-friendly” word processing software, but others take longer to learn these lessons and mastery of the common commands of their word processing software. (William Marling found that students in freshman courses took 15 weeks to become as skilled with word processing as advanced writers became in five weeks [22].) So computer writing teachers should not expect all students to take easily to the growth-through-change of computer writing. Instead,

we should organize instruction to benefit students whether or not they are yet fluent computer writers.

Third, computer writing teachers need to sense how writing with a word processing computer can counteract the tendency of many student writers to change little as they draft or to limit their changes to “little” surface features. As we demonstrate computer writing and organize classroom exercises, we can stress large changes:

- How easy it is to move whole paragraphs or longer chunks of text.
- How little effort it takes to add qualifying words or phrases in the middle of a sentence or whole sentences of clarification and elaboration in the middle of a paragraph.
- How parts of a draft can be saved for possible later use and how this feature can be used to create—without laborious recopying—a new draft made up of sections of other drafts.
- How an earlier draft—or part of such a draft—can be retrieved from a disk and incorporated into a current writing project.
- How easy it is to eliminate—or eliminate and then replace—sentences and longer segments of text.

Fourth, teachers should realize that writing at a computer can magnify the concern some students have about surface correctness. To counteract this tendency, we need to emphasize in our demonstrations how easy it is to clean up such matters *later* using the “find and replace” command of word processing software and the ability of “spelling checker” software to locate misspelled words. We also can demonstrate how easy it is to draft right through a trouble spot—not worrying about a clumsy phrase or the lack of an example, but just leaving a space and going on, knowing how easy it will be to fill the space in later with the right phrase or needed evidence.

Fifth, computer writing teachers need to know that the computer and its keyboard can work very well without a video monitor. If students persist in disrupting the productive flow of drafting with corrections of spelling and typographical errors, and the selection or substitution of words, we can let students write truly “in the

dark." We can turn the monitor off awhile or adjust its contrast until the screen is blank in an emphatic demonstration of the appropriate disregard of errors in rough drafts. We also can structure sessions of invisible free-writing so that stopping to find the right word or phrasing does not, to paraphrase Sheridan Blau, cause students to lose the last half of an emerging thought before they net the first half (307).

Those points, I'm sure you notice, assume a dynamic, non-linear view of writing and a computer-assisted writing approach pretty much limited to word processing. That is deliberate. I see a lot of potential for computers to help students generate and develop points of view on material, and I agree with Raymond and Dawn Rodrigues that computer-based invention software can reinforce classroom strategies by letting students work with structured invention whenever they need it (78-79). But what concerns me primarily, in my classes and in this article, is the dynamic drafting process—the growth-through-change at the heart of writing. And one of the best ways I have found to make the complex and simultaneous processes of writing clear to students is through computer writing. While writing with a word processing computer and working with students in microcomputer word processing classes, I have discovered that computer writing makes the growth-through-change visible—and so to at least some extent, demonstrable to student writers.

What I am suggesting, then, is that professional writing teachers should look for ways to use word processing computers to help students understand the dynamics of drafting. Toward this end, we should explore the pedagogic powers of computer writing to demonstrate key concepts of writing, even to students who write their papers with pens or typewriters. But since microcomputers are spreading rapidly into homes and educational settings, even simple demonstrations of the kinds of changes possible during drafting will register with some students as meaningful acts of role-modeling. For as we use computer writing to demonstrate the dynamics of drafting, we will be showing the computer writers in our classes how they can use the dynamics of drafting when they work with their word processing computers.

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