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Word Processing and the Writing Process: A Cautionary Tale

This is a story about a teacher research project that took on a life of its own, leading me in directions I had not anticipated and bringing up questions I had not expected. (1)

Several years ago, I began to acquire some proficiency on a word processor and, seduced by its promise of mechanical ease in writing, revising, editing, I was eager to see what word processing might do for my basic writing students. So I encouraged them to enroll in Word Processing for College Writers, a self-paced course developed by two of my colleagues. When I joined the teacher research group sponsored by the Bay Area Writing Project and the Center for the Study of Writing, I thought an ideal project would be to study the effects of word processing on student writing. I realize now that I expected to join the growing chorus of paens to the wonders of the computer age and the freedom it would allow my students in the composing and revising processes. I didn’t, but I’ll come to that later.

I decided to do a case study, to consider how word processing affected one student’s writing process, especially in terms of revising and of detecting and correcting basic surface errors. I chose Mike as the subject for this case study for several reasons. I could track his writing for over a year, through three quarters of basic writing and one quarter of English 1A, Freshman Comp. He took the word processing course a little more than midway through this period—toward the end of the second quarter—and from that time on used a word processor in his writing. As a result, I had the opportunity to examine his writing both before and after he began using a computer to see how he fit it into his writing process. And though he has the potential to become a fine writer, his writing is marred by basic surface errors (misspellings, fragments, run-together sentences) and a tendency to

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ramble, limitations which would lend themselves to the computer’s most accessible features: spell-checking and the ease of editing and revision. (2)

Mike’s writing caught my attention during his first quarter as my student. Reading through a pile of papers written in response to canned, mundane topics (in this case, a report on “some distinctive pattern of behavior observed at a particular time and place”), I came upon this sentence:

The restaurant had a nice atmosphere, you know your typical denney’s type of place with lots of fake brass and plastic plants everywhere.

And a little later on:

Right after they sat down they yelled out for coffee and stuck there heads down in the menus. But it didn’t end there; I could here old grouchy voices behind the menus fighting over the prices of the food...

Errors be damned. This student can write. Irony. Careful observation. Sensory images. A mundane topic approached with a perceptive angle and response. I’m going to keep my eye on this kid, I thought.

And I did. Because of his difficulty with spelling and editing, I encouraged Mike to take the self-paced word-processing course, hoping he would recognize spelling and sentence-level errors more easily if he saw them printed rather than in his own handwriting.

Since we teach process in our basic writing course, Mike had some idea of pre-writing, rough drafts and final drafts from his very first paper. One passage in the rough draft of his first paper reads:

It was about 6:00 pm and we were just starting a dinner rush and this lady came in and placed an order as usual but when she placed it she special ordered all her food, that means no pickel or no catchup or something like that.

The revised (final copy) reads:

It was about 6:00 pm on a Friday night and we were just starting our dinner rush. This lady comes in and places her order as usual, but when she placed it she special ordered all her food. That means no pickelks or mustard or something like that.

Mike made some necessary changes here. He broke up a run-together sequence into sentence units, added the “ed” to “special order,” and changed “catchup” to “mustard”—I suspect because he was uncertain of the spelling of catsup. Evidently, however, he made these changes while recopying his draft; he did not mark the changes on his rough draft, which led me to think that revising on the screen would be a natural for him.

By the next quarter, Mike’s writing process showed evidence of more sophistication. His pre-writing notes were more detailed and he was beginning to mark corrections and changes on his rough drafts. Still, many of the changes on the final copy were made (presumably) during the copying rather than on the draft ahead of time, and his papers, even after corrections, still showed a high incidence of basic surface errors.

During his third quarter in the writing center, Mike took the word processing course:

A ... great plus, for me especially, is that the word processor has a spelling checker, which, when your done entering everything into the computer, checks over everything you’ve entered and makes sure everything is spelled correctly. Another thing I’ve noticed when I use the spell checker is that after it makes me correct the same word a couple of hundred times I finelly start spelling it right.

The spelling in Mike’s papers improved. By the time he left my classes, however, he still hadn’t mastered homonyms: he used “your” for “you’re” and “finelly” for “finally.” He did “finelly” get most of the basic ones under control (there/their/ they’re, your/you’re), but others kept cropping up: “road” for “rode,” “board” for “bored”—the spell checker doesn’t catch homonym errors.

By the time Mike entered English 1A, his fourth quarter as my student, he had just about eliminated fragments in his writing. We practiced cumulative sentences and double-checking for subjects and verbs early in the quarter, and this helped. Run-together sentences, though, were another story. He continued to write them and had to edit every paper to correct them. Part of this may be due to the increased complexity of his sentences. In the sample from his first paper (above), Mike did make some RTS corrections, but the sentences are relatively simple, containing discrete thoughts. In his later pieces, Mike wanted to link ideas:

The action here is starting to pick up, a lady and her husband sitting across the lobby, waiting for the next show to start, just lit up a couple of cigarettes. George looks at his watch, “the three o'clock shows should just about be ready to break,” he says as he grabs a broom and dust pan from the room in back of the snack bar.
After announcing the "action," Mike shows the people in the lobby of a theater awaiting and preparing for the next show; the announced "action" and the people are linked in Mike's mind, so he misses the comma splice in the first line. He needs a break after "watch" in the next sequence, necessary even though he's introducing a quote. These are RTS errors students should learn to catch when proofreading or editing. When I asked Mike about run-togethers, his response was invariably: "If it sounds right I think it's OK." He could tell a fragment by sound, but not a run-together sentence, whether a comma splice, a run-on, or a missing comma before a conjunction. He must have had trouble seeing when he needed these corrections; he couldn't depend on sound. He mentioned several times that he wasn't much of a reader, that he hadn't read or written much in high school. He said, "The counselors and career people kept putting me into classes like welding and auto shop, which was fine with me at the time because there wasn't much work involved."

So, speaking strictly in terms of how the word processor affected Mike's editing, I think the results are mixed. The computer helped his spelling. He not only learned to use the spell checker, but learned to spell more words by having to correct them often. His handwritten work toward the end of this period contains fewer misspellings than his earlier papers. He also reduced the number of fragments in his papers; by the end of his last quarter with me, he wrote very few fragments, only two in his last three papers, though whether this is due to his growing sophistication as a writer, his ability to "hear" fragments, or his using a word processor is a moot point. Run-togethers, however, are a different story. Right up until the end his papers contained a large number of run-togethers, especially comma splices. As he said, and as I think, he writes by sound. When I wrote RTS in the margin (but didn't pinpoint the location), Mike was able, for the most part, to find and correct the errors. But he still couldn't find most of them by himself. So seeing the sentences on the screen or on a type-written draft didn't help as much as I thought it would.

Unhindered by nit-picky English teacher considerations, Mike was delighted to be using a word processor:

"The thing that has been the most useful to me in this course was learning how to use the word processor, its great being able to type my own papers, and at the same time I learn how to spell difficult words the right way. It's like typing a paper and looking through a dictionary at the same time... One area of writing I still need to work on is spelling and punctuation, but even that has become a lot easier using the word processor."

So Mike's perception is that word processing definitely had a beneficial effect on his writing. I must agree, if for no other reason than he feels empowered to write:

"I can write whenever I want, however I want it written, and on whatever subject I want to write about, it may not be spelled right, but I can still do it. I think somehow there is a kind of power of the pen, if you write well, you'll get results. I think that's kind of what I'm striving for."

Given that Mike felt empowered in his writing by using the word processor, and that the spell-checker freed him from one of his worries, how did he fit the computer into his writing process? His comment about the "power of the pen" is revealing; he continued to write his first drafts longhand. I wonder why. Perhaps it was because he could use computers only at school, or, if he had a computer at home, he could write only when other members of the family weren't using it. When I asked him, though, these were not his reasons. He continued to write first drafts longhand, he said, because "the writing's better." I wasn't sure what to make of this until I got further into the research project.

When Mike first began using the word processor, he'd write out his draft, then type it into the computer more or less as it was, much as he'd copied over final drafts of his early papers, making minor corrections as he went along. Later, though, still writing a first draft longhand, he'd type it into the computer, print out copy, make revisions by hand (mostly minor editorial corrections and deletions), then enter the corrections on the computer. When I'd hand him back a word-processed draft with RTS in the margins, he'd make those corrections by hand on the hard copy and then enter them into the computer. Mike was gradually incorporating the computer into his writing process, but in so doing he was making more corrections by hand than he had when he first began working on the word processor.

At first I was surprised that Mike didn't use the computer for first-draft composing and that he was making more changes by hand than on the screen. Then, as I was writing the work-in-progress report for this paper, I began to examine my own writing process. I started out by writing on-screen, but I found continued on next page

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that most of what I wrote was "sheer cloudy vagueness," (p. 166) in Orwell's terms. Although what was essentially free-
writing on the computer did loosen me up, the most substantive part of my writing was what I did in longhand: the writing was better, more concrete, more detailed. Like Mike, I'd print out a hard copy, make revisions by hand, then enter those revisions into the computer. Unlike Mike's, however, my revisions were more substantial than minor corrections and rewording; I was deleting computer-generated stuff and writing lengthy inserts on the old faithful lined yellow pad. Finally, frustrated and angry at my inability to get anywhere on the computer, I sat down with my yellow pad and wrote the damn thing out longhand, entered it into the computer, then made revisions on another hard copy. Once I had written the substantive part longhand, I found I could use the computer more or less as a high-tech typewriter and low-level editor. I found this process surprisingly similar to Mike's.

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What surprised me even more was finding some research articles that substantiate what I thought were idiosyncratic writing techniques. Jean A. Lutz (1987) conducted "A Study of Professional and Experienced Writers Revising and Editing at the Computer and with Pen and Paper." She found that these writers did indeed make more revisions on the computer than those who wrote in longhand, but that the revisions were generally surface level: "... participants using the computer tended to make fewer word-, phrase-, sentence-, and paragraph-level changes" (p. 415). She acknowledges the computer's role as an enabling device, allowing "the writer who begins without a plan to try out many variations of a text and to see them and compare them immediately; for those who plan before they write, the computer allows them to work at the word- and sentence-levels to refine meanings and express ideas precisely" (p. 418). However, as she also points out, "computers pose at least two problems for writers" (p. 418). One, writers must "learn to compensate for a possible tendency to tinker," otherwise constant small changes and moving the cursor around may "detract from, rather than enhance, the finished product and even the writing process itself" (p. 419). This is close to my own experience. I found the tendency to tinker reduced when I made changes on a printed draft. Professional writer Sallie Tisdale (1987) simi-
larly finds that the computer interferes with her writing process. Her comments on the computer's effects on the writing process brought me up short:

There is more than appearance here. The computer seems to interrupt a process. It lends a false importance to the individual (called, so admiringly, the operator)—and to the page itself, at the expense of a breadth of vision. It actually interrupts the process of vision, of seeing thoughts become notes and evolve into a story, and only very eventually into type and print. The drudgery of writing is not an unfortunate thing, but writing itself, essential, the heart. Drudgery is a matter of attention to detail in the service of the whole. (p. 91).

Tisdale sees the computer as interrupting the writing process, as inclining the writer to lose "attention to detail." I thought about what this means in terms of my own writing. Like Mike, I found that my writing was better when I wrote longhand—more concrete nouns, more active verbs, more "attention to detail." As I think about the process, I remember many minutes staring into space, looking beyond the yellow pad. Writing on the computer, looking up. I see the screen, a technical, physical presence, the "shimmery green blocks of type," as Tisdale says, not the airy nothings that allow me to focus on the visible images in my mind and struggle to find the invisible, intangible words to convey them.

This corresponds to a second problem Lutz observed, that the "hardware and software limitations of word processing equipment directly affect the focus of a writer's attention. If writers do all of their composing at the computer, they may have a tendency to focus only on lower-level changes. Thus, they may need to be encouraged to use hard copy or pen and paper composing for such things as reordering and organizing larger chunks of the text, such as paragraphs. ...The computer seemed, in this study, to be particularly restricting for editors who reported needing to obtain a sense of the whole text that the computer did not allow" (p. 419).

Her study suggests that writing generated by a computer required more revision than writing generated by pen and paper; that the handwritten copy was better (or more thoughtfully? more concretely?) written. This is my reading: Lutz is careful to state that hers is not a qualitative study. However, she does say that the participants who wrote on a computer "tended to produce fewer and shorter sentences" than those written by participants in the study who used pen and paper (p.407). Her observation corroborates what Alexander Cockbum (1986) (quoted more extensively below) insists, that "word processors degrade the prose style of those who use them" (p. 22).
Lutz's findings apply to writers like me, more experienced writers than Mike (her "experienced writers" were graduate students in writing theory with teaching assistantships). Gail E. Hawisher's (1987) study examining "The Effects of Word Processing on the Revision Strategies of College Freshmen" applies more directly to Mike's writing.

Hawisher, unlike Lutz, made qualitative judgments about the writing, and found that "Those essays produced with pen and typewriter ... received comparable quality ratings to those produced with a computer" (p. 145). In other words, the computer-generated essays were not qualitatively superior to handwritten ones. Hawisher's subjects were above average college students, so in one sense I can't compare them to Mike, a community college student who began his college writing in a basic writing course. However, Mike's writing did not suffer from lack of fluency or specific detail, and he had a distinctive idiosyncratic voice right from the outset, so in that sense he was not as limited as those students Jane Juska and Glynda Hull describe in their studies (cited below).

Hawisher's finding is that there is "little evidence that a computer or pen and typewriter had different effects on the quality of writing" (p. 158), however, certainly applies to Mike. The quality of his writing seems not to have been affected once he began using word-processing, though it did indeed free him from his anxiety about spelling, and it did indeed fill him with pride that he could type his own papers.

As Hawisher points out, "Like Dieterich and Britton, one might argue that for many it is not revision that determines quality. Rather it is whatever writers do in the production of the first draft—that first utterance" (p. 157). She goes on to say that "Those of us who are teachers and researchers of language and writing must continue to explore the relationships among writers, writing, and computers so that we continue to evaluate new tools and methods for the teaching of writing" (p. 158). There's something in the writing process itself that makes it necessary for each writer who uses a computer to find out how that computer fits in best with his or her own process. Evidently, at least for Mike, a beginning writer, and for me, a more experienced writer, computers are not too effective for first drafts, though we both continue to use computers for our writing.

Intrigued, I began to explore what other researchers, teachers, and writers had to say about computers and writing. As you would expect, much work is being done on using computers in teaching writing, much too much to try to cover here. Articles run the gamut from wishful thinking (if only we had a computer lab available to our students, wonderful results would ensue) to thoughtful insights on how computers affect students at different steps in their development as writers. Jane Juska (1989) found not only that she herself loved writing on the computer, but that it increased both fluency and composing time among her group of at-risk ninth-grade students. Glynda Hull (1988) looks at "Literacy, Technology, and the Underprepared," trying out computer strategies at-risk community college students, attempting to use technology "in literacy instruction, particularly the teaching of writing." And there are many more stories of successes, of writers, both novice and experienced, who have found computers opening new ideas, new ease and fluidity in writing, and teachers who share hopes (and frustrations) as we struggle to incorporate this new technology into teaching writing.

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But there are also cautionary notes. Donald Murray (1985) lists some disadvantages of the word processor, many of which are stated or implied in the research and in the writer's comments included here: "Writing is so easy that it becomes too easy.

It's easier to see a small chunk of writing, but harder to see the entire piece. If the writer does not print out the text and spread it out the writer is likely to lose sense of the whole. ... The reality for the writer is the screen" (p. 72) rather than in his thoughts. The writer may be looking at words, rather than at mental images, at "the process of vision" as Tisdale calls it—just what Orwell warns us against.

Marcia Peoples Halo (1990) adds yet another cautionary wrinkle, discovering that even machine choice affects students' writing processes. She found a distinct difference in the quality of student writing depending on the type of computer the students used: IBM-type (word-oriented) or Mac-type (graphics-oriented). Student writers using a Macintosh tended to produce childish prose compared to students using an IBM: "The Mac may appeal to writers who find it easier to express themselves in images than in words" (p. 19).

There is a vast difference between expressing oneself in images and expressing oneself in words that create images. She asks some searching questions: "... what is [the emphasis] on appearance doing to the quality of the prose we and our students labor over?" (p. 16).And, "Can a technology be too easy, too playful for young, immature writers to use? Can such a technology arrest their writing at a less mature stage of development?" (p. 19).

Diane Peltus Balestri (1988) reminds us that teachers of writing "have a new challenge before them" because many

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students choose to use computers, and proposes a program wherein teachers have the opportunity “to exploit the student’s technology of choice, first by understanding how novice writers use wordprocessing and then by developing the potential of wordprocessing itself to improve student practice and, ultimately, student prose” (p. 14). However, looking into the future she foresees other questions than Halo’s, “altogether new questions about the permanence and ownership of written products, and, therefore, about every aspect of the writing process” (p. 45).

Balestri points out the ease with which softcopy (writing to the screen) can “be created and modified invisibly by many hands, and its volatility can make it hard to possess” (p. 17). Alexander Cockburn, a professional writer, puts it more forcefully, and because his opposing viewpoint is heard less often, I’ll quote at length:

Word processors degrade the prose style of those who use them. The syntax takes on a listless quality and, as they do in extemporaneous human speech, the rhythms become nerveless. The reason is surely that what is produced is not script but transcript, the self-indulgent flow of someone assured that the cursor, bustling about the screen, emending, transposing, obliterating, is emulating the justice and finality of properly accomplished prose. But the emulation is spurious. There is never finality in the display terminal’s screen, but an irresponsible whimsicality, as words, sentences, and paragraphs are negated at the touch of key. The significance of the past, as expressed in a manuscript by a deleted word or an inserted correction, is annulled in idle gusts of electronic massacre. (p. 22).

Cockburn is concerned with “the testament of individual responsibility,” feeling that electronic manuscripts have no history, no names, and thus obscure individual responsibility (p. 23). In our age of thinking in terms of “collaborative writing” and “writing communities,” and appreciating how effective these ideas might be in a classroom, it wouldn’t hurt to remember that ultimately the writer is responsible not only for what he says but how he says it. Overreliance on computers can obscure the development of an individual writer’s ideas, ideas that would be preserved in handwritten, typewritten, or even hard-copy edited drafts.

Sallie Tisdale, in the article cited above, offers another dissenting view allied to Lutz’s warning about the tendency to tinker:

The shimmery green blocks of type looked so important, so complete, so publishable. I spent many hours seduced by the machinery, trying to ignore the slow shift of kinetic pages. My words were fine words, and in the same instant of wanting to continue refining them forever, I found them just perfect as they were. (p. 90).

She, too, was “seduced by the machinery,” as I had been, but she is responsible only for her writing—I, as a teacher, am responsible for instilling some understanding of writing and the writing process into my students. And I wonder, as we move more and more into computer-generated writing, what Balestri calls “softcopy” writing, if we’re short-changing our students. For in addition to raising questions about graphics-oriented versus word-oriented machines, about ownership and responsibility, there’s another question to be considered: What about the long-acknowledged but little-understood connection between creativity and the human hand? This is another dimension missing in writing generated solely on computers. James Joyce liked to feel the words flow through his wrist onto the paper; British playwright Dennis Potter reminds us that:

The physical act of writing is something many modern writers have lost sight of. I want to make the shapes ... I want to curl the comma, to cross the ‘t’ ... I have a sense of awe about managing to get into those tight little words all that torrent of feeling. (quoted in Ward, p. 86).

John Updike (1986) calls it “The Illustrative Itch,” the itch “to make dark marks on white paper [that] is shared by writers and artists” (p. 35).

What about the long-acknowledged but little-understood connection between creativity and the human hand?

I won’t lie to you— tempting though it is— and tell you that this whole piece was painstakingly written and revised longhand. It wasn’t. Some of it was written directly on the computer screen in those “shimmery green blocks of type,” pieces of it were typed when I was away from the computer, and parts of it were indeed written out on lined yellow paper. Much of what I’ve written you don’t see; it’s been deleted by the cooperative cursor, lined out by pencil, furiously crumpled— typed, word processed, or written—in the waste-
basket. I'm still struggling, refining, grappling with and learning about my own writing process, with and without the computer.

What I've discovered in the course of this study—perhaps reflection is a better word—and in the course of writing up whichever this is, validates what we all know but perhaps are seduced by wishful thinking into forgetting or ignoring; that each student, each writer, is different, and each of us must discover our own process for our writing, whether it be generated through a computer, written out laboriously in longhand, pounded out at a typewriter, compounded of all three, or written, revised, and polished internally before one word ever sees the light of day. Janet Emig (1971) reminds us there is no single process for writers; we must each find our own. So yes—let’s introduce our students to the wonders of word processing, let’s encourage them to learn the keyboard on a typewriter or a computer, but let us not forget the “illuminating itch,” the solid feel of a pencil in our hand, the words flowing through our wrists, the curl of a comma, the dot of an “i,” and let’s share these wonders, too, with our students.

The research project that started out in one classroom with one student led me far from both—to other teachers, students, researchers, writers, and to far more questions than I can attempt to answer. But what I did find out there I can bring back into the classroom, enabling me to approach my students with a new respect for their individuality and freedom as writers.

Notes
1. My thanks to the Bay Area Writing Project and the Center for the Study of Writing for funding this project.

2. “Mike” is a fictitious name for a real student.

References


