

A Course on Computer-Based Composing Strategies



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When writers begin to use computerized text editors, they often retain their old paper-based composing techniques and do not fully exploit the power of the computer. This paper describes an innovative course in which students improve their writing by learning a broad range of computer-based composing techniques. These techniques include melding the planning and drafting stages, drafting in words and phrases rather than in full sentences, and moving text freely on the screen rather than simply adding new text to the bottom of the draft. They also learn about outliners, spelling checkers, invention programs, and other special computer capabilities.

The computerized text editor is an extremely valuable production machine for writers. Elaborately formatted documents with a variety of fonts and more than one column can be created easily. Last-minute changes can be made on the screen with no need for re-typing an entire page of the document. But the computerized text editor is more than a powerful production machine for writers. It makes possible a broad range of composing techniques and capabilities that are not available to people composing on a typewriter or in longhand. As such, it has the potential to improve the quality of writing.

Highly skilled writers frequently praise the computer as a writing tool but, as noted by Hawisher (1), studies of student writers have, for the most part, failed to show that the use of text editors leads to improved writing. In fact, studies intended to determine whether using a text editor improves composing habits--as measured by amount of revision activity--have produced contradictory findings. For instance, Collier (2) reports increased revision activity, whereas Harris (3) reports less.

If we assume that the text editor does enable certain writers to develop new and effective composing strategies, then one reason why the benefits of computer-based writing do not show up clearly in the research is that many writers may not readily change their composing habits simply because they have begun working on a text editor. Also, writers may change their composing habits, but not in productive ways. If you simply hand someone a powerful new tool, you cannot assume that person will begin using it effectively. It may well be that many writers will require *instruction* in computer-based composing techniques. This idea lies behind the chapters on how to compose with a computer that are now appearing in writing textbooks, and it lies behind the teaching methods of instructors such as Yaw (4), who includes in her writing courses demonstrations of her own computer-based writing techniques. It also lies behind "Writing in the Computer Age," a course I developed recently in conjunction with Jean Blank Farkas, a technical writer, curriculum designer, and Extension Division writing instructor at the University of Washington. This course is devoted entirely to helping students develop computer-based composing techniques and, as such, may be the only course of its kind. To describe this course is the purpose of this paper.

SETTING AND LOGISTICS

"Writing in the Computer Age" is a one-day non-credit course intended for working professionals. It is offered through the Education and Training Division (E & T) of Boeing Computer Services. E & T is a non-degree-granting institution that draws its students from the Boeing workforce and from many other organizations as well. Courses are taught at facilities located in Vienna, Virginia; Dearborn, Michigan; and Seattle, Washington. Courses are also taught at customer sites. Most of the courses deal with data processing, computer languages, and software applications. "Writing in the Computer Age" is part of a group of 17 communication and management courses.

The course was pilot tested in February 1987, was significantly revised and taught again in September and October, and is slated to become a regular E & T offering taught by E & T instructors. All students have been Seattle-based Boeing employees holding a broad range of technical and administrative positions. Enrollment is limited to 14 to permit ample interaction between students and instructor and to enable each student to have sole use of one of the IBM PC-XT microcomputers installed in the classroom.

The course itself is not specific to any particular text editor, but for logistical reasons all the computers were loaded with Microsoft Word™ (Version 3.1), and the students were expected to know Microsoft Word. Some of the students had recently completed an E & T course on Word. Others were experienced Word users. Two students chose to take the course even though they use other text editors. These students had difficulty performing the student exercises, but were not otherwise handicapped.

CONTENT

Below is a brief account of the major topics and activities of the course.

Introduction to Course

The instructor begins by defining a computer-based writer as one who fully exploits the capabilities of the text editor. Many professionals, however, are still "paper-based writers" (or "secret typewriter users") even though the machine on their desk may be a computer. One characteristic of computer-based writers is that they can, when appropriate, compose in a highly flexible, dynamic way, freely moving sentences, phrases, and whole passages around on the screen. In contrast, paper-based writers tend to restrict themselves to composing in full sentences and generally write "linearly," by adding new sentences to the bottom of their draft. The instructor notes that the course assumes the students' willingness to change some deeply ingrained habits in order to become computer-based writers.

The course then proceeds with a discussion of the differences between writing with beams of light on the screen vs. writing with ink fixed to the page. The computer offers the ability to delete text, to move and copy text, to open up space in a document, and to change format--all without degrading the physical appearance of the document. These capabilities and others as well are more than secretarial conveniences that do away with the need for a final typing job. Rather, they can become integral to the composing process itself.

Students are encouraged to voice any objections they may have to using a text editor. They are apt to make the following observations:

- Computer screens are smaller than sheets of paper; hence, you don't see as much text as you do with paper.
- Computer screens often have poor resolution; it can be easier to miss typos.

- It is harder to "navigate" through a long screen document than a paper document. You don't see where you are in it. It can be harder to re-organize documents and to move blocks of text from place to place.
- It is difficult to annotate a screen document, either with notes to yourself or to collaborators and reviewers. In addition, you can't edit a document on the computer screen without obliterating the author's original wording.

The instructor acknowledges the legitimacy of these objections, but notes that most of these problems are being remedied. Screens are getting larger and clearer; windowing, the search function, and other capabilities compensate, at least in part, for difficulties in navigating through text; online annotation capabilities and online review and editing software are becoming prevalent. In addition, there is no law against occasionally printing off a hardcopy version of a draft, either for easier reading or to get a better global view of the document. The instructor's overall point is that, especially with improvements in hardware and software, the advantages of working on the screen far outweigh the disadvantages.

It is also necessary to acknowledge the continuing role of dictation in the workplace--although we will soon be dictating not to a secretary but to a computer. But writers should also recognize that with dictation reviewing what has already been written is inconvenient. And so, dictation is best suited for drafting short documents and documents in which the organization is not complex or difficult.

The Writing Process

Writers need a general understanding of the composing process if they are to modify their own composing activities to exploit the power of the computer. The course, therefore, includes a lesson on the composing process--and this is one of the few parts of this course than can be called traditional. Indeed, the treatment of the composing process is quite traditional: composing is divided into planning, drafting, and revising. Students, however, are made to recognize that these stages overlap and that writers shift continually from one to another.

Planning is divided into determining the audience and purpose of the document, determining document type and approach, generating content, and organizing content. Again, these are not presented as psychologically distinct processes.

The section on **drafting** contains two innovative ideas: (1) that a writer's control over her subject matter and organization will vary from one situation to the next; and (2) that faced with only moderate control, a computer-based writer may benefit from composing not in full sentences, as a paper-based writer would do, but in phrases and fragments of various kinds. For one thing, this approach can prevent writer's block. For another, it seems a shame for a writer to invest the extra energy required to hammer out complete sentences if it will be necessary to revise these sentences extensively later on. These ideas accord in a general way with Hairston's (5) attempt to distinguish between kinds of writing which make greater and lesser demands upon the writer and which therefore require different composing strategies. These ideas are developed further in the lesson on computer-based drafting.

The suggestions for **revising** offered in this lesson are not computer specific. They are (1) letting the draft "cool"; (2) revising in multiple, dedicated passes; and (3) soliciting peer review.

Screen-Based Planning

Students next learn to use the special capabilities of the computer in the planning of documents--specifically in the activities of generating and organizing content. The instructor first explains why paper-based writers have often been frustrated by the process of creating outlines, even informal "scratch" outlines. They do not want to waste time repeatedly typing or handwriting outlines that have become too messy to work with. They do not want to develop their outlines in detail because the time they spend handwriting or typing a lengthy outline seems wasted in that they will have to repeat these same words and sentences in the actual draft. Finally, paper and ink outlines do not let the writer include sentences and paragraphs that may come to mind during the outlining process--the paper-based writer cannot open space between two outline entries and jot in some good sentences that have popped into her head.

These problems, however, are eliminated when outlining is performed on the computer screen. Outlines do not get messy, outline entries can be used as headings and topic sentences, and--most significantly--the writer can add and manipulate notes and draft sentences along with traditional

outline entries. While computer-based outlining certainly does not require the automated outlining function offered on most sophisticated text editors, this function may benefit some writers and so is briefly demonstrated. The instructor notes, however, that the orderly, systematic style of planning enforced by computerized outliners may be constraining to some writers.

The flexibility and freedom made possible by the text editor can alter the planning stage in still more dramatic ways. For some writers, the planning and drafting stages are completely melded into a dynamic and highly creative hybrid of the two, as was reported by the highly skilled writers in a study by Lutz (6). Many writers, however, will not discover or adopt this technique simply because they are using a text editor, and so this technique is taught in the course.

Finally, a few computer-based tools designed to promote rhetorical invention and creative thinking are described and illustrated via transparencies.

Screen-Based Drafting

This lesson includes some standard guidelines for drafting, specifically, to avoid interruptions and to avoid interrupting oneself by stopping to make minor corrections that are better left for the revising stage.

The lesson then returns to the ideas that writers have varying degrees of control over their material and that writers can benefit by drafting in note form when composing continuous discourse is difficult. Using transparencies, the instructor presents brief case studies of writers who switched over to drafting in phrases and sentence fragments when they encountered difficulty and who gradually developed and combined these phrases and sentence fragments into continuous discourse. Another reason for drafting in note form is also noted: in the professional world, writers must often begin drafting even though they are waiting for some missing information. The writer may want to get a lot of the ideas on the screen and "write around" the missing information, but may not want to invest time hammering out and polishing sentences until the missing information comes and she sees how it will affect the surrounding material.

Finally, students are asked to recall the clumsy and frequently detested "notecard method" that writing instructors recommended and often required students to use in preparing research reports. The benefit of the notecard method was that the writer could always reorganize the material and add new information anywhere in the draft. It was an attempt to achieve some of the flexibility of computer-based writing before the advent of the computer.

Screen-Based Revising

Even "secret typewriter users" appreciate the ease with which errors can be corrected using the computer. But there are revising techniques that go beyond using the computer simply as an advance over correction fluid. Several are "technological"--namely, the automatic spelling checker, the online thesaurus, the search-and-replace feature, and the (emerging) style and grammar checkers. Other revising techniques require only fundamental text editor capabilities. Just as a writer can assemble notes and phrases into sentences, so can she break a faulty sentence into pieces before working on it. Some writers like to open white space before and after the faulty sentence so they can better focus their attention on it. Also, using the copy function, the writer can create an "experiment" version of a problematic passage and can work on it without any effect on the original. If the revision is successful, the new version is retained; if the revision is unsuccessful, the old version is retained. In general, the use of a text editor can lead to an experimental attitude toward revision.

Demonstrations and Exercises

Throughout the course, the instructor demonstrates many of the computer-based writing techniques on a microcomputer hooked up to a screen projector. Furthermore, the students practice newly learned techniques by performing several writing exercises at their own machines. These exercises include planning, drafting, and revising a short document at three different junctures in the course. The exercises utilize notes, headings, and other source material that have been loaded onto the students' hard disks.

CONCLUSION

It has not been possible to conduct pre-tests and post-tests in an attempt to measure how much the course does improve the students' writing. But the course has received consistently strong evaluations, and we have significant anecdotal evidence that the students are learning computer-based writing techniques which are largely new to them and which they feel will make them better writers. Jean and I believe that in the near future writing will routinely be taught as a computer-based activity and that the ideas presented in this course can be adapted to many forms of writing instruction.

REFERENCES

- (1) Hawisher, G.E., "The Effects of Word Processing on the Revision Strategies of College Freshmen," *Research in the Teaching of English*, 21: 145-159, 1987.
- (2) Collier, R.M., "The Word Processor and Revision Strategies," *College Composition and Communication*, 35: 149-55, 1983.
- (3) Harris, J., "Student Writers and Word Processing," *College Composition and Communication*, 36: 323-30, 1985.
- (4) Yaw, Y., "Computers on Wheels Help Students Learn Writing Skills: Writing Demonstrated as Process," *Academically Speaking*, 3(1): 2-3, 1987.
- (5) Hairston, M., "Different Products, Different Processes: A Theory About Writing," *College Composition and Communication*, 37: 442-52, 1986.
- (6) Lutz, J.A., "A Study of Professional and Experienced Writers Revising and Editing at the Computer and with Pen and Paper," *Research in the Teaching of English*, 21: 398-21, 1987.

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