Review: Computers and Basic Skills

Harriet E. Spitzer
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Microcomputers and Basic Skills in College: Applications in Reading, Writing, English as a Second Language and Mathematics. (New York: The City University of New York, Instructional Resource Center, Spring, 1984)

Harriet E. Spitzer

A friend and colleague, who is the director of a college writing center, was under some pressure to acquaint herself with the issues concerning reading and writing and computers. Her university dean was eager that the writing center "get some computers". In addition, some of the students who the center typically serves were expecting to use computers as they had in high school. I did not recommend that she read CUNY'S latest publication, Microcomputers and Basic Skills: Applications in Reading, Writing, English as a Second Language, and Mathematics. Let me explain.

Microcomputers and Basic Skills takes a rather broad look at computer-based learning as it relates to developmental education. The idea for CUNY'S monograph, says Geoffrey Akst, its editor, emerged from an April, 1983 conference jointly sponsored by The City University of New York and Long Island University and held at LIU's Brooklyn campus. We are told in the preface that while half the articles in the ninety-four page issue are based on presentations at the 1983 conference, the remainder were written in response to invitations extended.

In all, the monograph brings together in one collection twenty-six articles representing an array of academic disciplines: reading, writing, English as a second language, and mathematics. For a person wanting to look broadly across disciplines that typically constitute basic skills instruction, the CUNY publication will have appeal and utility. The monograph is organized by discipline with sections for language and mathematics, and an opening general section that includes broader and less discipline-specific concerns. Also included in the monograph is a preface, introduction and glossary. The twenty-six articles are authored...
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by a bonanza of contributors, thirty-nine in all, of whom twenty-three
are CUNY-affiliated. Many of the contributors are new to the
"computer-learning scene" and it is promising that so many new prac-
titioners are involved in thinking about how computers can best serve
the needs of learners who have been previously underserved by their
educational worlds.

While the breadth of the CUNY monograph is appealing and the ex-
tensive list of contributors impressive, both of these features, I believe,
serve to undermine the credibility of the collection. Ironically, these
features turn out to be the publication's liability. Each article is only
two to three pages in length. Thus the presentations read more like sum-
maries than discussions; in fact, some of the presentations seem to be
abstracts of the oral conference performance, lacking the deliberation
and elaboration of written discourse. Most serious of all, this cursory
treatment taken together with the document's broad base (there are
four basic skill disciplines under consideration) has the overall effect of
sidestepping the learning issues that underlie computers and basic skills.

By way of contrast, I am reminded of a recent publication like the
CUNY document in that it reflects back upon a conference's pro-
ceedings. Computers in Composition Instruction edited by Joseph
Lawlor grew out of the proceedings of a research/practice conference
held at SWRL (Southwest Regional Laboratory) Educational Research
and Development, Los Alamitos, California, April 22-23, 1982. But the
SWRL document is quite different in format from CUNY's. In
SWRL's case the editor selected seven presentations for inclusion in the
eighty-eight page monograph, providing ample opportunity for discus-
sion and clarification. The effect is that Computers in Composition In-
struction is a smart, helpful publication making significant contribu-
tions to the state of the art of computers and composition. One article,
"Computers and the Composing Process: An Examination of
Computer-Writer Interaction" by Earl Woodruff (The Ontario In-
stitute for Studies in Education) is particularly noteworthy. Woodruff
identifies three different ways in which the computer can assist the stu-
dent in producing a piece of writing—computer as consultant; com-
puter as questioner; and computer as collaborator. Woodruff takes the
reader through the thinking that underpins these new computer-writer
relationships. And because the reader has been in on the thinking
behind the conclusions, the conclusions seem appropriate and
measured. The quality of that contribution is nowhere apparent in
CUNY's Microcomputers and Basic Skills in College.
However, I don’t want to give the impression that there is no value in some of the individual presentations in the CUNY monograph. Joan Baum’s short but insightful remarks in “Word Processing in the Classroom” recommend the good idea that teachers and students, both new to the electronic medium, become electronic writers together. And the LaGuardia Community experience (“Word Processing: A Catalyst for the Basic Writer”) reported that word processing not only permitted the basic writing faculty to maintain their pedagogical belief that writing is a process made up of prewriting, drafting, revising, and editing; it also encouraged students’ peer editing and collaborative learning.

But some rather traditional and irksome notions of writing, especially in relation to basic writers, were also expressed. In one presentation, (“Sentence Logic”) the authors, Marvin Kushner and Robert Latzer, comment that “their program was designed to create a ‘halfway house’ between computer programs that deal with individual lexical or syntactic units (words, phrases, and sentences) and original writing with a word processor.” The nasty premise here is that basic writers are not yet ready to write; they have neither “their own ideas, their own context, their own imagination” to compose. Basic writers, according to the authors, have to “graduate” to writing and the word processor. Thoughtful practitioners, of course, know this is not true and have developed and articulated writing programs and writing centers where student writers compose and regularly confirm the connection between high expectations and performance.

And then there is the inevitable grammar drill—sometimes called the electronic workbook—that loads into the computer what had dubious value on paper. According to Robert G. Gillingham, (“Teaching Sentence Structure by Microcomputer”) “drill and practice in rudimentary sentence patterns will enable students to learn the variety of localized sentence patterns at their disposal.” Although the computer allows the writer to scramble and unscramble sentence parts in the drill, this activity is essentially mechanical and manipulative. But writing is not a series of manipulations; rather writing is a cognitive act that expresses meaning and achieves purpose.

It was somewhat of a relief to see that the three articles that discussed the use of the microcomputer in the service of improved reading instruction and practice did not propose an electronic workbook solution to basic reading. One article, “The Potential of Computer-Assisted Instruction in College Reading Programs” by Ann Bradstreet Grinols
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stresses the advantages of the computer medium over print: it is individual, it immediately corrects, it can provide graphic reinforcement, it is forgiving and it has the capabilities for complex record keeping. The two other articles on reading encourage college reading teachers to begin to design their own courseware or adapt existing programs for the computer. Through a computer authoring program, teachers can easily alter material on disk to meet an individual learners's needs. If as one presenter says, ("College Reading Programs: Instructors Can Design Their Own") reading instruction is perceived "not as general skill instruction but as guiding students to cope with strategic demands of the various passages they encounter," then computer reading programs will be more than an electronic notebook or a ready-made instrument to implant reading skills. We hope so.

These individual presentations notwithstanding, it seems to me that the CUNY monograph would have been more successful had it pursued in greater detail a smaller number of these more interesting and promising computer applications. Rather than our getting the "record" of the conference—the reader would have benefited from an enlightened discussion to consider the real "contribution" of the conference.

What help is there for my friend, the director of the writing center, as she considers the prospect of computers in her center? Clearly there is no quick fix, no remedy courseware that will transform unskilled writers into mature composers. In Microcomputers and Basic Skills in College, as so often in discussions of basic skills and the computer, we find that we are not only talking about computer applications but discussing the potential of individualized instruction. We are caught up a little short as we realize how little we know, from an educational research perspective, about developing instruction that is tailored to meet individual needs. Using computers raises old instructional issues like student interaction and learner control as they are redefined in computer learning environments. Most exciting, the introduction of the computer in schools and colleges has not only drawn attention to itself, but to the "nature of the learning process, individual differences in learning, instructional strategies and instructional sequencing." (Kearsley, G., B. Hunter and R.J. Siedel, "Two Decades of Computer Based Instruction Projects: What Have We Learned?" , p95. In Technological Horizons in Education Journal, [Feb 1983], pp 88-96).

There is a growing body of literature, some of it research-based, that addresses some of the critical issues of composing, computers and learning. This literature talks less about available software (and that is appropriate) and more about the heuristic opportunities of the machine in
the garden—the computer in the classroom. It is less boastful than some earlier commentary because it does not propose the computer as an educational panacea. Instead, it parallels the second-wave or second-generation of computer applications in general, rejecting the hacker mentality that if something can be programmed, it should be programmed. Benefiting from the first-generation computer experience, this second-wave has more responsible and principled expectations, grounded in beginning research and pedagogy.

So, I will recommend that my friend read NCTE's recent publication, *The Computer in Composition Instruction: A Writer's Tool*, edited by William Wresch. I will also recommend that she consult Bridwell and Schwartz’ “A Selected Bibliography on Computers and Composition” (*CCC*, Feb. 1984) for additional Sources. Finally, I will encourage her to be patient and very demanding.

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