New Flexibility in Curriculum Development through Word Processing

Computer technology makes it possible to develop, test, and refine instructional materials in the classrooms where they will be used.

Many educators and educational publishers view the computer as an elaborate teaching machine that can provide programmed instruction and drill and practice on materials printed in textbooks. While this approach aligns software with standard texts and lessons, it may do so at the expense of instructional excellence. The approach is likely to compound the problems in a curriculum already organized around feeding facts to students.

The virtue of many textbooks is their organization, sequencing, and standard methods for presentation, study, and testing. Textbooks help burdened teachers in much the same way that TV dinners help burdened homemakers. But no thoughtful educator approves of a completely textbook-oriented curriculum any more than a good cook serves only TV dinners. The problems of textbooks lie in their overspecialization and lack of aesthetic sensitivity and intellectual organization.

Computing Language Arts

Probably 70 percent of schooling, particularly in grades 1–6, is spent in language arts: learning to speak, listen, write, and read. Can software be written so computer technology can help meet language arts and other curriculum objectives meaningfully, beyond merely reinforcing limited technical skills or providing remedial instruction? If so, the computer will find a meaningful place in the mainstream of the elementary and secondary curriculum.

The critical questions are: how can we write a language arts curriculum in a machine format and have it come out more relevant than basal readers and other English textbooks? How many programmers will it take? How can they understand the dynamics of the classroom, or understand the students who will be using the machines? What will be the role of the teacher and of the learner?

Fortunately, educators do not need to depend upon new programs to create computer-based curriculums. The most flexible program for teaching reading and writing skills and for helping educators design, store, and publish curriculums already exists. In fact, it is used in many schools. That program is word processing, and in word processing (and data base management) we are likely to find the organizing axle around which the spokes of an integrated and expressive curriculum will evolve.
"As an alternative to centralized, textbook-based curriculum, word processing as a curriculum design tool enables developers to initiate and implement a flexible, self-refining process."

HAM’s letters were designed to motivate and model writing activities. HAM became a literate and literary pen pal for hundreds of students, and his nonjudgmental interest in students’ self-expression and his tireless efforts to print student writing provided essential ingredients for a successful writing program.

Computers Can Change Curriculum Design

These two storytelling and creative writing projects demonstrate how computer technology can enable curriculum developers to work in residence in the classroom, creating, field-testing, and revising instructional materials and lesson plans to suit the needs of students and teachers. The only limitation on quality is the experience and sensitivity of the developers and users.

Many people have predicted that the high cost of computer programming will further centralize curriculum development. When word processing is used as a basis of curriculum design, however, expensive programming is not required. Creating materials directly on the word processor enables educators to adapt them to particular district, school, or class objectives, and to focus on the cognitive, affective, and aesthetic qualities of the materials. As an alternative to centralized, textbook-based curriculum, word processing as a curriculum design tool enables developers to initiate and implement a flexible, self-refining process.

In many industries computers have changed product design by changing the design process; they have also changed the methods of production. So too in education, computers can change the process of curriculum design and the method of distributing and printing curriculums. If we grasp the design, distribution, and publication capabilities inherent in applying computers to education, we can effect a radical redesign in materials and procedures in our schools.