

Crossroads

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The National Educational Computing Conference held this past summer was overwhelming. More people, more exhibits, and more announcements of new products. The conference has been followed by a rash of price cuts and additional new product announcements this fall. The pace of change seems to be quickening.

I am particularly struck by three major, apparently conflicting, roads that are being built. One road is computer-assisted instruction. Here, the computer is viewed as an instructional delivery system. The underlying aim appears to be to develop computer-assisted instruction delivery systems and instructional materials that are educationally sound and more captivating than MTV or Nintendo.

The second road is computer-as-tool. Here, the underlying goal is that of providing students with powerful tools that are related to the curriculum they are studying-aids to problem solving and communication. Some of the newer tools increase the ability of students to easily work with a combination of text, sound, graphics, and video. Others provide increasingly powerful aids to solving the range of problems that students study in a broad-based academic program. Still another category, known as "groupware," facilitates groups of people simultaneously working on a project from different physical locations.

The third road is consumer market products such as "personal digital assistants." Some are designed to solve a particular problem that consumers might have (for example, need to carry around a large file of names and addresses; need to have easy access to a number of words and phrases in five different languages), while others are designed to create new markets (home hypermedia; Apple's forthcoming "Newton"). Such consumer products have substantial applicability to education.

Which road should education take, and which road will education take?

Empowerment

Obviously, education should take the road that leads to students obtaining the best possible education commensurate with the available resources. Still, that does not help us much in making a decision.

One aid to analyzing the problem comes from the business world. In recent years, business has undergone a strong movement toward empowering workers. Workers are empowered by being given the authority, responsibility, and education to do their jobs well. This formula has worked well in many countries and in many different types of business.

A similar aid comes from the literature on school improvement and change. In recent years, some leaders in the movement to improve schools have asked why all of the previous efforts have not lead to greatly improved schools. While the issues are very complex, quite a bit of the answer seems to lie in the "power" structures of education. Who has the power? Does it reside mainly with students, teachers, parents, school administrators, school boards, or legislatures?

Seymour Sarason in *The Predictable Failure of Educational Reform* (Jossey-Bass, 1990) argues that any educational reform movement will fail that is not firmly rooted in giving substantially increased power to students and teachers.

I will write about empowering teachers in my next editorial. What does it mean to empower students? Sarason and others argue that for most students, school is dull and is relatively unrelated to their world outside of school. Students are put into an environment with a restrictive set of rules and with few options. Much of the curriculum content is of the nature, "Memorize this for the test." It is a "throwaway" curriculum.

What would school be like if students were more empowered? You might play a mind game of imagining that a great deal more power resided with students. Would the typical student focus on "learning" the content of a specific textbook, and demonstrating knowledge by passing an objective and short answer text? Would science classes spend more or less time on hands-on, inquiry-based activities? Would students choose to spend more or less time on drill and practice types of activities—whether based on paper and pencil worksheets or computer based systems? Would school be competitive or cooperative?

As you come to understand the notion of empowering students, you can begin to answer the crossroads question for your particular school environment.

The Answer

The answer to the crossroads question is that "the" answer cannot exist. Each road can empower students if the students are assisted by knowledgeable, supportive teachers and a wide range of other humans. No road empowers students who do not have such support. And, of course, there are many other elements of the educational system that must be considered as one answers the crossroads question. Thus, the crossroads question must be answered in light of considering education as a system, not as individual elements.