

Learning Through Graphics (In Seidel, Computers and Communication)

Alfred Bork, U. of Calif, Irvine

"Most of our ways of education at the moment are very much oriented toward the use of language. For students who are linguistically apt, verbally sophisticated students who learn well in this way, this emphasis on words does not present any problems. But many students, at all levels of education, are not this sophisticated in assimilating verbal information, and would be greatly aided by the use of other channels of communication."

"Our most widely used student-computer dialog is MOTION, an 'F=ma' world for the student to explore freely. Students control, in a highly interactive manner, the force laws, equation constants, and initial conditions. Thus they can examine many more situations than they can in the 'real' world, with much more control."

"Another extremely important educational role of graphics is to motivate the student."

"An Irvine dialog, LUNA, uses the visual model of the phases of the moon as a vehicle for introducing the notion of a scientific model."

"Color. It is essential that future computer-based systems have full color capability, the ability to display any color in any graphic manner. AT least two aspects are important. The first is that a color can be a conveyor of information, a new dimension in the kind of information that can be carried.... Another very important aspect of color concerns the effective component of education....If the educational world presents a monochromatic view, it fails to compete for students' attention."