The Great Computer Drill and Practice Put-down (Guest Editorial)


It echoes from every part of our land. Fashionable and trendy, it gathers steam as it races through academia. Being part of it certifies some sort of technical intelligence and guarantees membership in the innermost inner circles. It has its standard clichés ("expensive page-turner," "lack of student involvement") and ridicules those it believes do not understand the pristine propers of learning. ("You don't use a drill program?!") Although its call for higher-level uses of the computer is commendable, its premise—that drill and practice is not a worthy use of the computer—is rubbish.

If you don't believe the inner circle exists and that the Great Computer Drill and Practice Put-down is indeed the very latest and utterly voguish, simply mention a positive aspect of drill and practice at any conference session, and the onslaught will begin. Those who favor computers in education will be horrified that the computer could be so denigrated, while those opposed to computers in education will yell, "See, we told you. What a waste of money. May as well put the students in workbooks." Someone from the inner circle will add, "It reminds me of all the other so-called innovations in education. Let's not forget educational television and programmed learning, folks." The rest of the inner circle will nod in all-knowing agreement.

Next, a couple of people will tell you that they know how bad software is and how impossible it is to have enough computers for all the children. Someone knowledgeable about research will stand up and remember that peer teaching outscores computer learning in a research project. This, of course, will set the nodders in motion and will serve as a signal for the speaker to sit down with a satisfied expression.

"Well?" the Great Computer Drill and Practice Put-down enthusiasts will say as they cast a pitying look upon you, the unfortunate who uttered the unthinkable. "The child should be in charge of the computer program. The software must emphasize critical thinking skills and not rote memorization. Drill and practice stifles intellectual development. The questioning, rather than the absorption of knowledge, is most important."

The inner circle will set you straight. You are ruining lives, turning children into robots, denying inalienable rights, and suppressing the American way. (You probably don't excuse anyone who has to visit the lavatory, either.)

[[Drawing of a student dressed as a robot has been omitted.]]

But you know something that the inner circle doesn't. Drill and practice works. It cannot be admitted too loudly because drill and practice is the stepchild of computer education. Research has proven that it works, but research is impersonal, somehow not human enough. A real story is the best evidence. A first grader struggling with addition facts. A teacher who realized the child was bright but for some reason was not learning in class or with extra help from the teacher. One exciting drill and practice disk. A good one that the child enjoys. Twenty minutes before school
each day for two weeks. The child learns the facts better than anyone else in the class. She continues to use the program. End of the school year. The same child has taught herself to carry and can add numbers such as 345+789+263. She is an "A" mathematics student in second grade. The confidence is there to go on now.

No one in the inner circle seems to recall that intelligent questioning follows the absorption of knowledge. No one is advocating that computers be used solely for drill and practice. Drill and practice has its place, but so do the other uses of computers.

As for the raucous cry about poor software, it seems rather anachronistic now. Several years ago when most software was terrible, little was heard. The technology was so new that few people knew whether a program was bad or not. Perhaps they were delighted simply to have the opportunity to buy anything which would run without a syntax error. As software improves-and it is improving-all of a sudden the inner circle seems to have found out the secret that software can actually be rotten. There are also some rather undistinguished textbooks, movies, filmstrips, simulations. . . . Shall we give up all books because . . . ?

Does it really matter if peer teaching "beat" computer learning? Peer teaching is cheaper, of course, and with some older students it is a good idea, but what parents want their young children spending any significant amount of time teaching others when this same time could be used for moving them ahead in the academics? This is 1985, not 1967. Parents expect teachers to teach, and they'd love for computers, not their children, to help out.

"What did you do in school today, Bill?"

"Well, I knew all the reading so Mrs. Holmes had me help Nancy with her papers and then in math I'm ahead so I got to be the boys' room monitor."

"But what did you learn?"

"That Nancy can't read. Don't worry. Mom, I'll learn something just as soon as everybody catches up."

The Great Computer Drill and Practice Put-down is similar to many movements which have gone before. It is not, it seems, directed solely against drill and practice, but instead against change itself. With educational innovations, bad or good, follow backlashes which in almost every case destroy the promises of the new. The inner circle is already mounting concerns about computer languages such as Logo, BASIC, and Pascal; about word processing; about simulation/game use; and about computer use itself in precollege education. The Great Drill and Practice Put-down is only the beginning.

Watch out for the inner circle. It is gaining in education. Maybe. But not in the American home.