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ABSTRACT

Developing long-range plans that support educational computing programs requires leaders that understand the problems and promises of instructional computing. If administrators are expected to provide the vision needed to guide program development, they must first be encouraged to increase their computer competence. A course on administrative uses of computers that provides opportunities for mastering productivity applications and for planning instructional computing program development can give administrators the necessary competence to understand the kind of training and support that teachers need to help them master the machines. The paper concludes with a brief description of a recommended course. (8 references) (EJS)

SHARING THE VISION, POWER, AND EXPERIENCE:

INCREASING THE TECHNOLOGY COMPETENCE OF ADMINISTRATORS

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ABSTRACT:

The late 1980s witnessed the rise of issues that have caused administrators to shift their attention from instructional computing. The situation promises programmatic chaos unless leaders who understand instructional computing develop plans that insure program needs are satisfied. However, developing comprehensive plans requires leaders who understand the problems and promises of instructional computing.

If administrators are to guide instructional computing programs, they must increase their computer competence. Administrators must understand and be able to use appropriate technology. A course on administrative uses of computers which provides opportunities for mastering productivity applications and for planning instructional computing program development can satisfy those needs. If we want educational computing programs guided by leaders with understanding, similar courses will be required for administrative certification.

BACKGROUND

The late 1980s witnessed the rise of social issues that captured the national spotlight. Increased emphasis on drug education, AIDS awareness, and other concerns caused administrators to shift their attention, and their funds, from instructional computing to other programs. Mary Jo Langhorne, et al, suggest: "The use of computers in education is not the compelling issue it was even two years ago." Educational computing

received strong public support in the past, but new topics now monopolize media attention.

During the past three years, many schools have had fewer resources available to them. How have instructional computing programs fared in this time of financial instability? In 1987, I conducted a national study of elementary school instructional computing programs. Computer budgets proved to be volatile, with few schools establishing computer expenses as permanent line items. Another pattern emerged from the same study: funding levels for computing programs had declined dramatically during the late 1980's. The findings suggest that administrators felt they'd paid their dues by purchasing hardware. They were now prepared to allow other educational issues to take financial precedence. Most lacked long-range plans to guide the development of their programs.

In addition to the fiscal instabilities, some sources continue to challenge the importance of using computers educationally. A recent New York Times headline states: "Computers are in the classroom, but no one is paying much attention to them." The popular media suggest a reduction of interest in computing at a time when more support is needed to ensure programmatic stability. This situation promises educational chaos unless leaders provide guidance and support. They must develop understanding of instructional computing program needs so that they can develop long-range plans that insure those needs are met. Unfortunately, few school leaders have the necessary computer competence, and consequently, far too few comprehensive plans exist.

CURRENT QUANDARY

A recent National School Board Association survey of American schools concluded there is little evidence of comprehensive planning for educational computing programs. The findings conclude that most plans "did not have a comprehensive flavor." Developing long-range plans that support educational computing programs requires leaders with deep understanding of the problems and promises of instructional computing. Greg Kearsley contends that "administrators often lack any suitable preparation to effectively manage the computing activities in their schools." Administrators are being asked to make decisions on topics for which they are not prepared.

If we expect administrators to provide the vision needed to guide the development of computing programs, we must encourage them to increase their computer competence. Kathleen Fulton points out that only "18 states require...all students in their teaching degree programs...take a course on [educational] computer topics." Only one-third of our states value computing enough to mandate it in their teacher education programs. And, if one-third of the states require computer education for teacher certification, far fewer require a similar course designed for administrators. Still, without such experience for the administrators, there will be no vision guiding instructional computing programs.

Many educational leaders have called for greatly increased computer training for our teachers. Robert McCarthy quotes Tom Snyder: "We made a serious mistake in giving the computers to the kids first. We ignored the teachers, cut them out of the loop, and that's precisely the way to kill a

promising educational technology." And, teachers are still not receiving the preparation they need to use technology successfully. Dave Moursund points out: "By and large our colleges of education are doing a miserable job of preparing teachers to deal with the Information Age." Teachers do need more assistance with using technology instructionally. But who is in the best position to insure that teachers are provided the support they need? Their administrators, of course, if the administrators understand the unique need for support that instructional computing adoption requires.

Empowering our teachers—raising their level of technological competence—is very important. I endorse increased staff development efforts to raise the technological understanding and comfort level of teachers. However, if the promises of educational technology are to be kept, educating administrators is equally—perhaps more—important. Often, administrators have little or no hands-on microcomputer experience. Without that experience, they don't understand the need for continuing support that instructional computing demands. Administrators must develop the experiential base they'll need to guide their computing programs. One part of that foundation is the hands-on experiences a course on administrative uses of computers provides.

David D. Thornburg argues for informed leadership: "Educational computing took its sabbatical last year, and now it's time to get to work...{Our} problem, as I see it, comes from a lack of vision." I contend the journey toward vision includes frustrating moments caused by lost files, software incompatibilities, and confusing screen displays. The trip also includes exhilarating times produced by polished document creation,

facile data manipulation, or swift numerical analysis. Administrators with no personal microcomputer experience can't really understand the training and support teachers need to help them master the machines. Without that understanding, educational computing vision is not possible.

RECOMMENDED COURSE

I was recently reminded of that when I taught a graduate course, "Administrative Uses of Microcomputers," at SUNY College at Buffalo. The course is part of the educational administration certification program. Participants are aspiring administrators, individuals seeking administrative certification as a precursor to finding an administrative position. Nearly half of those enrolled had no previous computer experience. Those numbers echo ones reported by Kearsley for a similar course.

Although demanding for tyros, the participant consensus upon completing the course was that the hands-on expectations provided a critical part of their experience. Without the opportunity to master the computer for themselves, they felt that they would not have understood the powers and the problems of technology adoption. If they receive administrative appointments, these leaders-of-tomorrow will not be guilty of "dumping" hardware on untrained teachers. They understand the need for continued, substantial support, both financial and psychological.

The course includes practical applications, group discussions, individual and co-operative learning experiences, and opportunities to explore in depth an "emerging technology" topic. The applications include the productivity enhancement standards: word processing, data base

managing, print merging, spreadsheet developing, chart generating, and data exchanging between components. The power of each application is discussed, with attention given to how that power applies to educational administrators. Each application is taught during class sessions, using Microsoft Works for its power and ease of use. Students practice independently by completing assignments representing typical administrative uses of that application.

In addition to the productivity applications that focus the course, participants also engage in group discussions and problem solving experiences. These situations provide more pervasive opportunities for applying their computer understandings. Topics discussed include establishing computer adoption approaches, determining administrative computer uses, creating stable computer budgets, planning instructional computing programs, planning staff development of computer competencies, determining the cost-effectiveness of computer use, and establishing program evaluation policies.

Beyond the individual and group requirements, students form a cooperative partnership. Each pair becomes familiar with an emerging technology and reports on its administrative implications to the class-at-large. Subjects include telecommunication uses, dedicated input devices (scanners and digitizers), dedicated applications (scheduling or attendance programs), and new storage media (CD-ROM or laser disks). The explorations of emerging technologies remind administrators of the time needed to master new innovations.

Each element of the course is important. Without hands-on experience, discussions become second-hand. Without discussions, hands-on experiences become software training workshops. Without discussions and hands-on opportunities, the presentations become "Show-And -Tell" sessions. Together, the components provide a foundation for computer leadership capable of guiding us into the next decade. The course prepares administrators who can model technology uses in their own professional situations.

Many educational computing advocates are concerned that computers might share the fate of instructional television and other educational innovations that came and went. Robert McCarthy states: "The computer is too powerful an educational tool to be cavalierly consigned to the educational broomcloset." If we are to keep the computer out of McCarthy's broomcloset, we must increase the vision and leadership of our school administrators.

Daniel E. Kinnaman reports the recommendations of the National Education Association's committee on technology: "All schools should develop and implement a plan to install a computer with adequate software on the desk of each teacher by 1991." To develop such plans we must have informed, knowledgeable planners who know the powers and pitfalls of educational technology adoption. The way to avoid the computer broomcloset is to require our administrators to raise their computer competence. A course like the one described here should be required as part of the preparation for receiving and maintaining administrative

certification. Our educational leaders must understand what they are expected to lead.

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