The Two Most Important Competencies for Millenniem Teachers

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THE CENTRAL IMPORTANCE OF THE STUDENT AND THE INTERNET

Of all of the levers for educational reform and improvement in this new technologically rich millennium, clearly the two most powerful are *students,* whose needs and talents should be at the center of any and all new K-16 reforms in teaching and learning, and the *Internet,* which will enable every student to touch and feel and know and master this new world. In the process, these two dynamos will become the teachers' and schools' most vital resources and energize the reinvention of schooling as we know it. Further, students will become better prepared to excel in our technology-centered society, and add dramatically to the nation's already impressive pool of innovators and entrepreneurs.

MILLENNIUM STUDENTS

The "Generation YES" Program (*www.genyes.org*), spawned by the U.S. Department of Education's Technology Innovation Challenge Grant Program, has clearly demonstrated that the nearly 50 million students in our schools are ready to become the nation's most plentiful and critical resource for educational reform and improvement. One of the most common clichés in education is that "Our children are our most important resource." But, we have done little during these days of technology-centered educational change to draw upon and grow their remarkable facility with these new technologies. Students in Generation YES schools have worked magic: they have helped teachers to learn and use the new technologies, become the primary source of technical support for the complex technology infrastructures in their schools, and become the most gifted trainers of both students and adults in before-and after-school programs. They have even become the most effective spokespersons to the community about the advantages of technology for increasing student motivation, attendance, achievement, and success. They have changed the culture of each of the schools in which they have been allowed to flourish. They have made schools places that students *want* to be in—and sometimes are even reticent to leave at the end of the day!

One of the most plaintive oxymorons heard almost every day from school leaders making excuses for not accelerating their efforts to integrate proven technologies into their management, instruction, and assessment is: "We just don't have the technological know-how, or the technical resources needed to do much with technology at this time." All the while, they are surrounded by some of the richest technology-savvy resources in the world: their students. Schools do not need to bring in outside experts to work with the 507 students (average U.S. school size) and 31 teachers (average U.S. teacher-to-school ratio) in their school, when they have 507 students who are already well on their way to becoming experts in how to use and fix a broad array of new technologies!

Learning to work with students as educational partners, especially in technology-rich curricula and instruction, will require the building of a whole new set of "millennium" teacher competencies. It will require a visionary, admiring, and appreciative perspective on the part of school boards, administrators, teachers, and parents toward their understanding of the almost unlimited potential of students to become equal team members. It is this kind of perspective that will enable students to help plan and effectively implement new technology-centered approaches to almost every aspect of schooling—at every level.

THE INTERNET AND WORLD WIDE WEB

The Internet and its associated resources, including the World Wide Web, e-mail, file transfer, and voice and video communication, constitute a transformational phenomenon that has the capacity to change how we think and work and live. To realize this potential, teachers must view this vast resource as more than just another "arrow in their quiver" of educational resources. They must realize and accept its central importance in education and society, as well as how its use will change teaching and learning as we now know it.

The majority of school students are already quite facile in accessing the Internet—millions of them use it for research on school projects and participate in chat rooms for long hours, almost daily. Most however, have had little orientation or instruction about how to best take advantage of the vast resources it holds for learning the core subjects and for connecting them to the rest of the world. So, a set of "millennium" teacher competencies (almost as important as those necessary to effectively partner with students in their own education) would include the ability to convince students of the central importance of the Internet in their education, and the ability to teach them how to navigate and capture its resources with ease. Mastery of such competencies by "millennium" teachers would not only provide their students with the content and processes needed to meet schooling requirements, but also prepare them to use the Internet in ways that will be required by most careers in our new high-tech world. The Internet not only provides teachers and students with millions of times more resources than have been traditionally available to them for classroom instruction; it provides ready access to people, places, and programs located almost anywhere on the globe.

With the Internet, instruction can move away from a focus on learning facts and move toward perfecting "millennium" learning processes. More emphasis can be placed on helping students learn *how* to learn. We can stop the pedagogical nonsense inherent in asking students to learn such things as "who discovered America," and lead them to invent *new ways to discover who discovered America*—and all those other places listed chronologically in history books. Students can move away from attempting to master a limited body of knowledge and move toward becoming master learners, or even creators and contributors to knowledge. If we do not help teachers see the unusual power of this transformational imperative, we will have done more than miss the point. We will have missed the boat.

MASTERING THE TWO MOST CRITICAL COMPETENCIES

The Student as Learner and Teaching Assistant

Teachers must:

- believe in the advantages that students can bring to teaching and learning, and must help develop, improve, and grow the many roles that they can play in the classroom;
- be aware of how students are much more knowledgeable of, and adept with, the new technologies than most of their adult counterparts;
- believe that students can become full partners, and even leaders, in helping with the effective integration of the new technologies into curriculum and instruction;
- learn how to accept and nourish students as partners, as teaching assistants, without giving up their own critical role of teacher, mentor, and adult model;
- be comfortable in learning from students how to appreciate, use, and even fix the mainstream technologies now being used in schools;
- encourage their students to continually expand their already rich knowledge and understanding of the role of technology in society and education;
- become advocates in the schools and their communities for the expanded role of students in implementing sound, technology-centered teaching and learning; and
- become knowledgeable about the large and growing number of successful student-centered programs being implemented across the country, and become effective in determining which of those programs have implications for their own work with students as instructional partners.

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