

2005 NATIONAL TEACHER SURVEY

National Teacher Survey Tracks Shift in K-12 Computing Priorities From Educating the Children to Managing the Data

TECHNOLOGY HAS
CHANGED TEACHING
"A GREAT DEAL."
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K-12 TEACHERS THINK
THERE ARE TOO FEW
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EXECUTIVE SUMMARY

A new independent study indicates that a gap exists between technology for teachers and technology for teaching—and it may be getting wider. The No Child Left Behind (NCLB) Act is driving the shift in priorities—away from instructional computing and toward data management for reporting purposes. While 8 out of 10 of the nation's K-12 teachers are using computers for administrative functions—to send email, record attendance and post information to the school intranet -- slightly more than half are integrating computers into their daily curriculum.

This study, which is the only one of its kind to focus on the opinions of classroom teachers, underscores several trends in educators' uses and perceptions of technology in their schools. Teachers indicated that:

- Technology has changed the way they teach
- More computers are needed for direct student use in the classroom
- Administrative computing is a timesaver for teachers but may not be in the best instructional interests of students
- Hands-on computing is a must-have skill for digital-age children

From the 2005 Teachers Talk Tech™ survey, commissioned by CDW Government Inc. (CDW•G), education leaders can gain insight into teachers' perspectives on key issues in educational technology. The survey, conducted with a thousand K-12 teachers equally segmented from a random sample of elementary, middle and high school teachers, has a margin of error of plus or minus 3 percent. The findings of the study, released at the 2005 National Educational Computing Conference in Philadelphia, support both prior research and the direct classroom experiences of K-12 educators across the country.

The survey highlights a number of national trends. In addition to the key findings noted below, the survey also touches on some interesting regional distinctions. Teachers in the Northeast (15.3 percent) are significantly more likely to have one computer for each student compared to teachers in the Midwest (7.7 percent). By a wide margin, teachers in the South have more confidence in the ability of classroom computers to improve performance on standardized tests (73%) than teachers in the Northeast (47%).

Complete results of the 2005 CDW•G Teachers Talk Tech survey can be found at: <http://newsroom.cdwg.com/features/TTTCompleteResults.pdf>.



FIVE KEY FINDINGS

Finding 1: Technology has changed teaching “a great deal.”

The Teachers Talk Tech survey found that 76 percent of teachers consider technology an effective tool for the subjects they personally teach, with 56 percent saying that computing has changed how they teach “a great deal.” Established, seasoned teachers demonstrate no innate resistance to classroom technology. In fact, over 67 percent of teachers with 20 or more years of teaching experience acknowledge that technology has greatly affected the style and content of their teaching.

There is broad adoption of educational computing at all experience levels, with year-after-year gains in all teacher-related functions. For instance, 79 percent of K-12 teachers use computers and the Internet to research information for preparing lessons, compared with 73 percent in 2004. Asked whether they are using computing as a teaching tool for students, 77 percent said yes compared with 65 percent last year. However, the effectiveness of technology varies widely by

subject. Teachers rank computers as most effective for working on reading skills, writing skills, math drills and critical thinking skills.

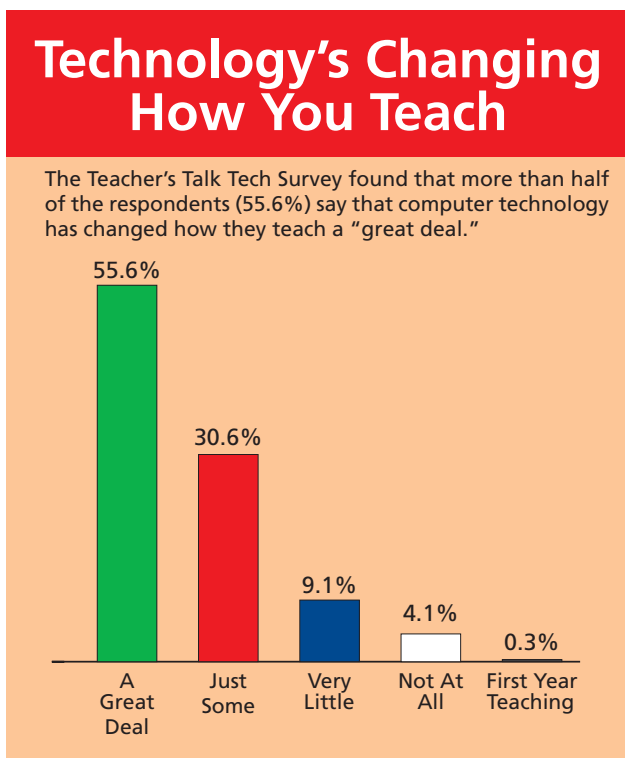
Teachers who know experientially what works and what doesn’t often lack persuasive evidence to back up their hunches. Typically they don’t document these changes or share their insights with the community at large. By shining an unaccustomed light on these attitudes, the Teachers Talk Tech survey underscores the need for more corroborating data, and for public schools to create and document successful models of technology.

Finding 2: Almost two-thirds of K-12 teachers think that there are too few computers in their classrooms. More than half of them support 1:1 computing.

A mere 38 percent of teachers say they have the right balance of classroom computers to students. While 76 percent of teachers acknowledge the value of integrating technology with teaching, only 54 percent use computers on a daily basis for classroom teaching. Lack of student access to classroom computers is slowing the process of integrating technology with instruction.

Furthermore, 2005 saw no significant difference in student-to-computer ratios over the previous year. Three-quarters of teachers occupy classrooms in which students share or take turns using a handful of computers. Only 13 percent of teachers have one computer for every two or three students, and 10 percent have one-to-one (1:1) computing. When asked what the best ratio is for classroom teaching, a majority (54 percent) of teachers replied that 1:1 would be their preference.

Putting appropriate technology into the hands of young users removes learning barriers. One-to-one access to computers—the optimum scenario, according to over half the teachers—assures that students are poised for action when a teachable moment occurs. However, a Palm pilot or Tablet PC for every child is a luxury most K-12 classrooms cannot yet afford. Alternatively, many educators perceive multiple wireless carts as a



cost-effective solution—and one that is preferable to moving children into a library or computer lab for a brief, regularly scheduled session.

Finding 3: Administrative uses for technology continue to increase in number and effectiveness.

NCLB, with its emphasis on mandatory record keeping and reporting, is driving the preference for administrative computing. Strapped for cash and fearful of losing federal grant money, school districts are scrambling to build huge databases and complex data networks. The unintended consequence is that classroom computing is getting shortchanged.

Teachers perceive the value of technology as an administrative tool and find it particularly effective for taking attendance, posting grades online and sending email to parents. High school and middle school teachers are significantly more likely than elementary school teachers to use their school’s Internet/Intranet for technology applications. For instance, 73 percent of middle school teachers and 68 percent of high school teachers regularly send emails to parents, as compared with 51 percent at the elementary-school level.

Finding 4: Teacher training showed no increase over the previous year.

What professional development there was tended to focus on administrative rather than instructional functions. More than 50 percent of teachers feel competent when it comes to sending email. On the other hand, only 25 percent feel they are adequately trained to use today’s instructional software packages. Professional development also lags when it comes to the use of assessment software, on which just 21 percent of teachers think they are adequately trained.

The good news is that the number of teachers who personally rank their computer skills as advanced-to-expert nearly tripled this year—up from 6 percent in 2004 to 17.5 percent today. Hands-on experience has helped many teachers come up to speed. Although 2005 saw no change in the amount of formal professional development, teachers say that technology training is optional but

generally available for those who request it. Nonetheless, specific training on integrating technology with teaching seems to be falling through the cracks.

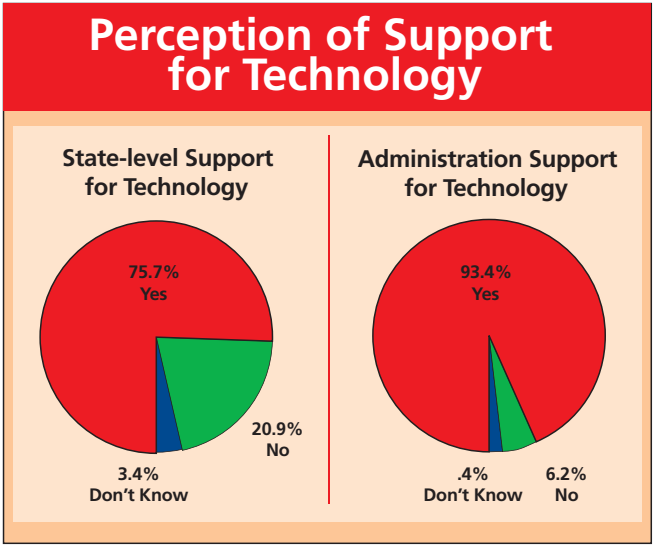
Finding 5: Teachers perceive strong support for technology in schools.

Early adopters of technology are no longer lonely voices crying in the wilderness. More than three quarters of teachers believe that their state government supports the use of technology in the classroom. As for support from school administrators, a whopping 94 percent of teachers believe that it’s strong and growing. The focus has shifted from “Should we have computers?” to “What should we use them for?”

While school board members and principals tend to weigh

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in on the side of administrative computers for NCLB purposes, teachers worry about the dearth of hands-on computing activities in their 21st-century classrooms. They fear that some students—particularly those who lack computer access at home—will leave school unprepared for a technology-driven workplace.



Impact of Findings

This independent national survey commissioned by CDW•G highlights many key trends in educational technology. The study is unique in its ability to offer insights into teacher opinions and perceptions about the role of technology in the classroom. Administrators and policy makers will be interested to learn that a majority of teachers have highly positive feelings about technology’s ability to improve student classroom performance and raise test scores. They should also note that teachers feel a strong need for increased access to more computers, so that students can experience hands-on learning.

For parents, the study offers insights into whether school resources are being effectively allocated. The survey may motivate parents to question current priorities and access to computers at their children’s school.

CDW Government, Inc. (CDW•G), which has been conducting the Teachers Talk Tech™ survey since 2002, is known for providing expert advice across a broad spectrum of technology products and responding with a sense of urgency to the unique technology needs of educators. CDW•G is a wholly owned subsidiary of CDW Corporation (NASDAQ: CDWC), a FORTUNE 500 company, and is a trusted technology advisor and solutions provider to federal, state and local government agencies, as well as to educational institutions at all levels. CDW•G delivers best-in-class solutions from top-name brands such as APC, Cisco, HP, IBM, Microsoft, Sony, Symantec, Toshiba and ViewSonic. CDW•G focuses on building strong customer relationships with its knowledgeable account managers and technical specialists who provide extensive pre- and post-sales support.

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