21st Century Students Deserve a 21st Century Education

About the Speak Up Project

Speak Up is a national initiative of Project Tomorrow (formerly known as NetDay), the nation's leading education nonprofit organization dedicated to ensuring that today's students are well prepared to be tomorrow's innovators, leaders and engaged citizens of the world. The Speak Up Project has three primary goals:

- To collect & report on what key education stakeholders think about key 21st century education issues such as technology use within learning, science and math instruction and job/career preparation.
- To raise awareness about the importance of including student, educator and parent voices in national and local discussions on these critical issues to our society and economy.
- To stimulate new local conversations and support school & community efforts to improve educational opportunities for all students.

The Speak Up data is collected through online surveys and verified through a series of focus groups and interviews with representative groups of students, educators and parents. To participate, districts register their schools and schedule time for their students and staff to take the 15 minute online surveys, and promote the survey to parents in their community. The survey is a convenience sampling with schools and districts (not generally individuals) self-selecting for participation. To minimize bias in the survey data, significant outreach is done to ensure adequate regional, socio-economic and racial/ethnic/cultural distribution.

Since fall 2003, the annual Speak Up online surveys have collected and reported on the views of over 1.2 million K-12 students, teachers, administrators and parents representing over 14,000 schools in all 50 states. The Speak Up data represents the largest collection of authentic, unfiltered stakeholder input on education, technology, 21st century skills, schools of the future and science instruction, and the data is used regularly by education, business and policy leaders to inform federal, state and local education programs. Every school and district that participates in Speak Up receives their own aggregated quantitative data with national benchmarks as a free service; that data is available to them for planning, purchasing and decision-making. Special reports are also available on regional data and/or national key findings and trends. The Speak Up project is underwritten by corporate and foundation sponsors and supported by a network of over 100 nonprofit and association partners from the education, business and community sectors.

Background on Speak Up 2007

Speak Up 2007 provided online surveys for K-12 students, teachers, parents (in English and Spanish) and for the first time, school leaders, defined as school principals, technology coordinators, district administrators and school board members. In addition to asking foundational questions about technology use, 21st century skills and schools of the future, this year's surveys also polled on timely issues such as emerging technologies (online learning, mobile devices and educational gaming), science instruction and global competitiveness, and the challenges facing school leaders today. The Speak Up 2007 online surveys were open for participant input from October 1 through December 21, 2007.

Participation Overview: Surveys submitted from schools in all 50 states, American DOD schools, Canada, Mexico and Australia. Top participating states in 2007: TX, CA, AZ, IL, AL, MD, NC, PA, FL, MI

- 319,223 K-12 students - 25,544 teachers - 19726 parents - 3,263 school leaders
- 3,729 schools and 867 districts
- About the 2007 Speak Up schools:
  - 97% public schools – 3% private schools
  - 32% Urban – 40% Suburban – 29% Rural
  - 43% Title I eligible; 29% majority – minority student population

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Selected National Findings

For this national release we have identified some key national findings from our Speak Up 2007 results that we felt were most timely for the national discussion. Additional findings and special reports will be released throughout the year and will be available on our website, www.tomorrow.org. For more information about Speak Up or to inquire about use of these data findings, please contact Amanda Ford at aford@tomorrow.org or 949-609-4660 x12.

Overview – Technology Use by Today's Students, Teachers, Parents and School Leaders

Students:
- 70% of students in grades 6-12 consider themselves "average" in their tech skills compared to their peers. The 24%, however, that identify themselves as "advanced" have significantly different views on technology.
- Following a trend identified in every Speak Up survey since 2003, girls in all grades continue to be more likely to identify themselves as having beginner or average tech skills compared to boys, and less likely to say "advanced."
- What do you do regularly with technology outside of school? Top vote getters:
  - Gaming – over 64% of students in grades K-12 play online and/or electronics based games regularly
  - Download music - #1 activity by middle and high school students mirrors increases in MP3 usage
  - Social networking - 40% of middle school students and 67% of high school students have a personal website (Facebook, MySpace, Xanga) – most popular activity on that website: emailing with friends
  - Communications (email, IM, text messaging) – while over 50% of all high school students use these tools regularly, girls' use outpaces boy's use by an average of 12 percentage points
- For school work, students in grades 6-12 are using technology for these top 5 activities in 2007:
  - Writing assignments (74%)
  - Online research (72%)
  - Checking assignments or grades online (58%)
  - Creating slideshows, videos, webpages for schoolwork (57%)
  - Email or IM with classmates about assignments (44%)

Teachers:
- What do you do regularly with technology?
  - 93% use email to communicate with colleagues or parents – only 34% email with students
  - Create a powerpoint presentation – 59%
  - Create or listen to podcasts or videos – 35%
  - 21% maintain a personal website like MySpace or Facebook
- #1 use of technology to facilitate student learning: assigning homework or practice work (51%)

Parents:
- What do you do regularly with technology?
  - Email my child's teacher – 91%
  - Email, IM or text with my child – 51%
  - Download music – 53%
- 58% say that technology accelerates learning opportunities for their children

School Leaders – Principals and District Administrators
- What do you do regularly with technology?
  - Email with colleagues or parents – 93%
  - Create a powerpoint presentation – 71%
  - Participate in online communities – 30%
- 84% say that their school's implementation of technology enhances students achievement

Preparing 21st Century Global Students

21st century skill development

- Over 54% of middle and high school students place a higher value (49%) on the importance of learning a 2nd language as a prerequisite for future success than do their teachers (36%) and parents (40%). Students also put a higher premium on developing creativity (70%) and teamwork (60%) skills than the adults in their lives.

- For the first time this year 60% of parents and 73% of teachers rate good technology skills as important – though both groups rate communications skills as more important. Students in grades 3-12 (including 74% of high school students) consistently identify good tech skills as the #1 skill they need to be successful in the 21st century.

- In terms of leveraging technology to develop 21st century skills, 68% of teachers identify Web 2.0 tools and 48% chose multi-media projects as what they are currently using to address these skills.

- 45% of school leaders say that "21st century skill measurements" are the most effective way to measure the impact of technology on student achievement.

Preparing students for future jobs

- While 66% of school administrators give a passing grade to their school in its preparation of students for jobs of the future, only 47% of teachers and 43% of parents agree. And amongst middle and high school students who assessed their technology skills as "advanced," only 23% of those students feel that their school is doing a good job preparing them for future jobs.

- When asked specifically about the role of science in their child's future, almost 100% of parents feel that a good understanding of science is important. However, 12% of middle and high school students say that they did not believe that understanding science is important for their future.

- 54% of parents said they would encourage their child to pursue a job in a scientific, math or technology field. While only 19% of students in grades 3-12 say today they are interested in a job in these fields, an additional 1/3 of students in these grades say they may be interested if they knew more about the jobs and careers in science, math and technology, providing a great opportunity for developing a new pool of students with STEM career interests.

Student Interest in STEM Careers
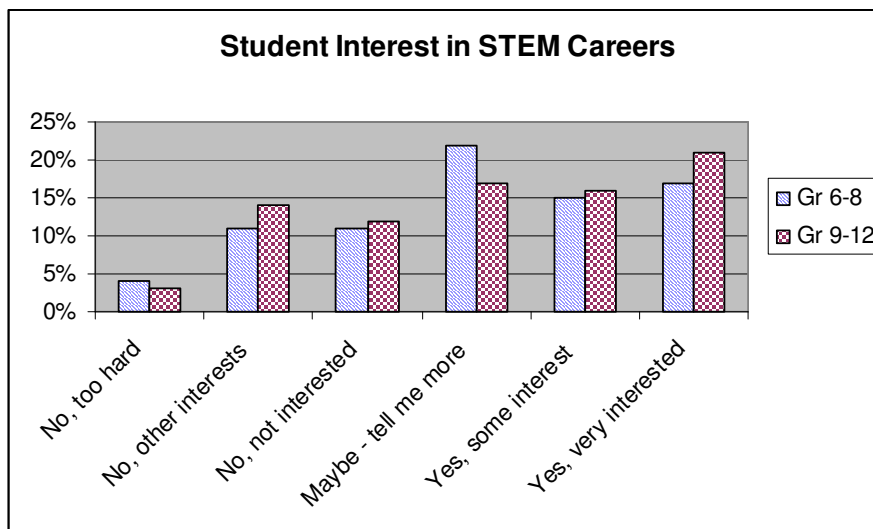
Leveraging Emerging Technologies

Educational Gaming

- What devices are kids using for gaming?

    o While high school kids are still more likely to use a video game console for their gaming, the younger students in grades K-8 are more likely to play games with computer based software and handheld gaming devices.
    o Girls across all grade levels are also most likely to play games using computer software. While 62% of high school boys list the video player console games as their #1 device, only ¼ of girls say the same thing.
    o 2/3rds of students in grades 6-8 play online games – either in multiplayer environments (31%) or single player games (36%).
    o Students in K-2 (33%) lead the way with their play of cell phone based games with 1/3 compared to only 23% of their high school peers.
    o Only 3% of elementary students say they don't play electronic games on some kind of device, 9% of middle school kids and 17% of high school kids.
    o On average across all grades, K-12 students are playing games approximately 8-10 hours a week.

- The number one reason students in grades K-12 (48%) like to play electronic games (besides winning) is the competition with other kids. For the students in middle and high school, finding ways to be successful at the game (46%) and the high level of interactivity (44%) are also strong motivators.

- And when asked about the value of gaming technologies within learning, students in grades 6-12 are very interested for a variety of reasons:

    o **Games make it easier to understand difficult concepts – 51%**
    o **I would be more engaged in the subject – 50%**
    o **I would learn more about the subject – 46% (56% of students in K-2 chose this as their #1 reason)**
    o **It would be more interesting to practice problems – 44%**

- Increasingly teachers are becoming interested in use of games to increase student engagement (65%), address different learning styles (65%), focus on student-centered learning (47%), and to develop problem solving and critical thinking skills (40%).
    o These strong belief statements by the teachers show no differentiation based upon gender, teaching assignment, years of experience or education level.
    o However, for the teachers who self-assess themselves as advanced technology users, their interests in gaming technology was significantly higher than the teachers who viewed themselves as beginner tech users. In fact, teachers who consider themselves as advanced tech users are 2X as likely to play online games as beginner teachers.
    o Only 6% of teachers do not see any value in even exploring gaming within education.

- Over 50% of teachers said they would be interested in learning more about integrating gaming technologies into teaching strategies and 46% would be interested in professional development on this. 11% said that they are currently incorporating some gaming into their instruction.

Mobile Devices

- Students are very interested in making better use of the "computers in their pocket" for learning and particularly to assist with communications, collaborations, creativity and productivity.
    o Over 50% of middle and high school students want to use these mobile devices to work on school projects and to communicate with classmates.
    o Students are also interested in increasing their productivity through organization tools, sharing calendars and downloading information from their school portals.

- And while teachers, parents and school administrators believe that the use of mobile devices in the classroom such as laptops, MP3 players and smart phones will increase student engagement in learning (52%), extend learning beyond the school day (43%) and prepare students for the world of work (42%), less than ¼ of teachers, parents and administrators see these devices as helping students with communications, collaborations or creativity.

- The number one concern with teachers (65%) about the use of mobile devices within learning – digital equity. Teachers also feel that they need professional development on how to use the devices within instruction and examples of effective classroom practice.

- Student access to mobile devices has exploded in the past year, especially in terms of MP3 access and students having smart phones (SP) or personal digital assistants (PDA). Growth from 2006 to 2007 for K-2 students having MP3 players was 84% and 58% for students in grades 3-5. The number of middle and high school students with smart phones increased by over 44% from 2006.
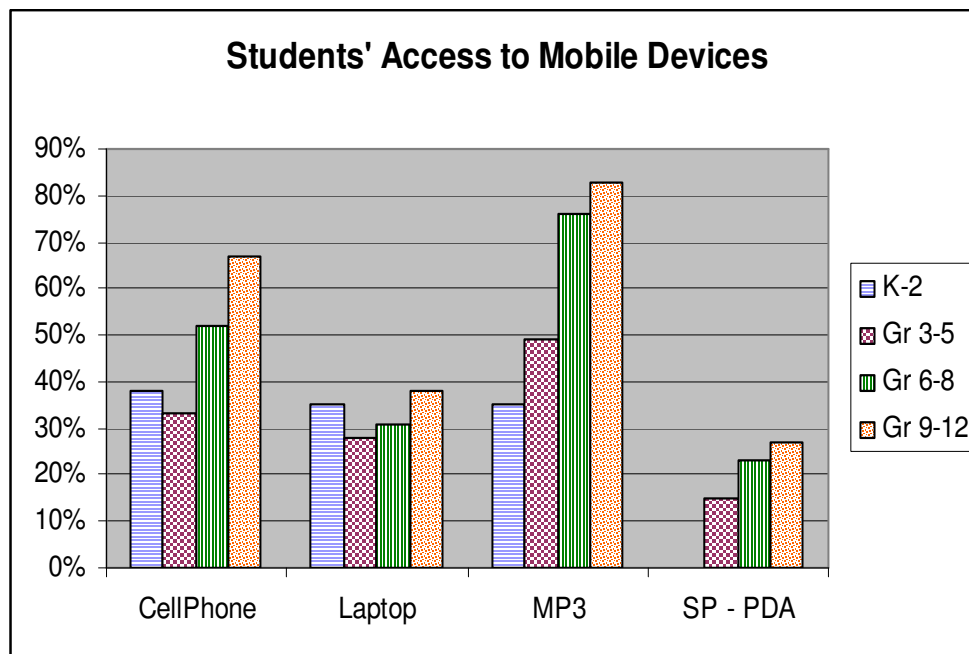
Online Learning

- From 2006 to 2007 teacher interest in taking an online class for their own professional development jumped 29% with almost 1/3 of teachers now saying that they would be interested in taking an online class and 26% saying that online learning is their preferred method now for professional development.
    - The reasons behind this new interest in online learning for professional development include scheduling concerns (66%), time savings (40%) and ability to control their own learning pace (41%).

- Student interest in online learning also increased slightly in 2007 with 8% of high school students saying that they had taken a class online and an additional 9% saying that they had taken a class that had an online component in addition to traditional classroom time. 6% of students in grades 9-12 said they had taken an online class outside of school for personal reasons.
    - Additionally, 33% of high school students. 24% of middle school students and 19% of students in grades 3-5 who have not had any previous involvement with online learning say they would be interested in taking an online class, with girls having a slightly stronger interest than boys.

- Student interest in taking an online class is dependent upon their current grade:

Why Students Want to Take an Online Class
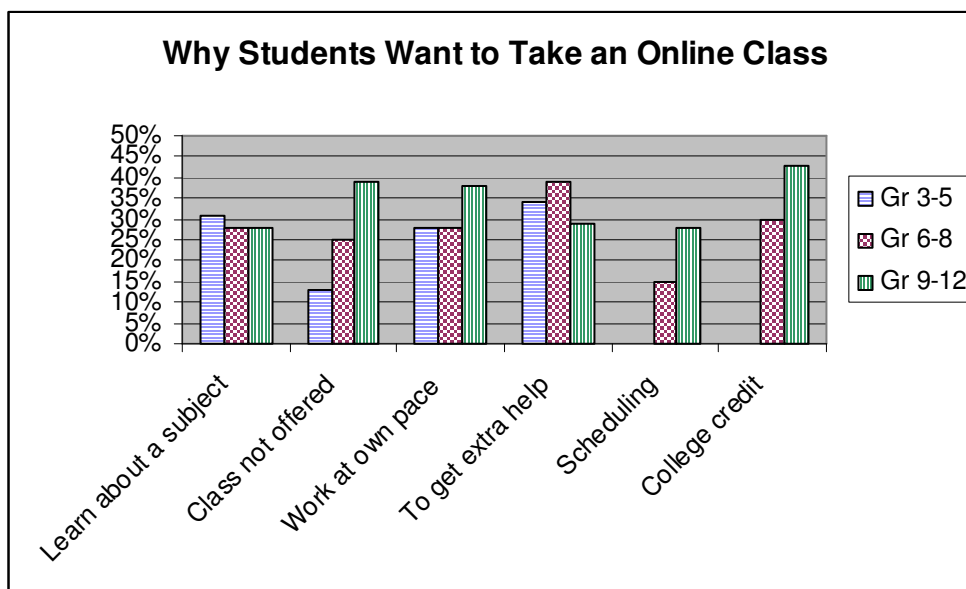
- 33% of teachers have already explored how to incorporate online learning into their classrooms.

- While 34% of school and district administrators said that they have not incorporated any online learning into their schools or districts, 45% said that a driving factor to do so would be to "engage students in learning." The #1 barrier to incorporating online learning today into classrooms – funding.

Conclusion: Creating the Ultimate School for 21st Century Learners

Since 2003 we have polled students about the obstacles they face in using technology at their schools. In 2003 the big vote getters (besides not having time in the school day to use technology) were slow Internet access, school filters and the quality and accessibility of computers. Over the past five years as we have seen the emergence of mobile computing devices and the explosion of a variety of online tools and kids' access to those tools, the obstacles have changed somewhat.

Students' frustration with school filters and firewalls has grown since 2003, with 45% of middle and high school students saying now that these tools meant to protect them inhibit their learning. And since 2004 we have heard repeatedly and more strongly each year, students' discontent with school rules that limit their access to technology at school and rules that prohibit them from using at school the very technology tools and devices that they use constantly outside of school (cell phones, email, IM, Text messaging) in all aspects of their lives. That discontent factor has grown by 46% over the past four years. The other major obstacle today is the teacher – over 40% of students in grades 6-12 cite their teacher as an obstacle since it is the teacher who increasingly is limiting the "when and where" of using technology at school.

When asked how their school could make it easier for them to work electronically, almost 2/3rds of middle and high school students said "let me use my own laptop, cell phone or other mobile device at school." 50% would like to be able to access their school work related software applications and projects from any computer in the school network and have unlimited Internet access on campus.   Students also would like tools to help them communicate with their classmates (45%), their teachers (34%) and to organize their schoolwork (42%).

Each year we also ask students, teachers, parents and (this year) school leaders to envision that ultimate school for 21st century learners. For the past four years the key technology component that students in grades K-12 would like to see in that new school has been the same: a personal laptop for each student to use. And for the first time this year laptops for students also topped the list for teachers and school leaders. Parents, however, only listed personal laptops for students as #6 on their list of technology that could improve student achievement. And just as we saw the students leading the charge for laptops for the past four years, they now are out in front on the use of gaming technologies in education, mobile learning devices, online classes and student access to technology tools while at school.

In each of these key emerging technology areas highlighted in this year's Speak Up national results, the difference between the students and the adults that support their learning lives is significant. Over 50% of students in grades 3-12 would like to see more educational gaming in their 21st century school; only 16% of teachers, 15% of administrators, and 19% of parents endorse that concept.   While 53% of middle and high school students are excited about using mobile devices within learning, only 15% of school leaders support that idea. Less than half as many parents as students see a place for online learning in the 21st century school. And even fewer teacher, parents and school leaders want students to have access to emails and IM accounts from school.

The "digital disconnect" that Speak Up first documented in 2003 continues today even as we envision the ultimate school for 21st century learners. And again this year the driving force behind our creation of the Speak Up project, to include authentic, unfiltered student ideas about education in both the national and local conversations about education, was reaffirmed through the Speak Up results and our focus group sessions with students. As one high school student in a recent focus group told us, his vision for the ultimate school is a school where the teachers and the principal actively seek and regularly include the ideas of students in discussions and planning for all aspects of education, not just about technology. As the student so eloquently said, "This is about our future after all. Our ideas should count, too." We heard this call to action echoed by students from schools and communities throughout the United States. We are honored to have the opportunity to continue to serve as a conduit for students' ideas and for Speak Up to be a catalyst for empowering key education stakeholders including students, teachers, parents and school leaders to have a greater voice in national, state and local education policies and programs.