Learning in the 21st Century:
2009 Trends Update

Blackboard K-12

As part of the Speak Up project, Project Tomorrow®, a national education nonprofit organization, in collaboration with Blackboard Inc. has tracked the growing student demand for online learning and how schools are meeting that demand. The initial report, *Learning in the 21st Century: A National Report of Online Learning* analyzed trends from 2006 Speak Up data and was followed by a Trends Update on the 2007 Speak Up data. The 2009 Trends Update examines Speak Up survey data collected online in fall 2008 from more than 335,000 K-12 students, teachers, administrators, and parents across the nation and finds increasing acceptance and awareness of online learning.

Annual online Speak Up surveys collected for the past six years as well as student and educator focus groups conducted across the nation have consistently shown that students, for the most part, more readily embrace the use of technology than their parents, teachers or principals. Students openly acknowledge that they have to "power down" when they enter the schoolhouse, and then "power back up" to resume their techno-infused lives outside of school. The near ubiquitous access to technology has empowered students to become *"free agent learners,"* and as such, they are less dependent upon traditional education institutions for knowledge acquisition and are much more self-reliant, exercising their Internet-based skills to aggregate data and information. It has become increasingly clear that students are functioning as a "Digital Advance Team" for our nation illuminating the path for how to leverage emerging technologies such as online learning effectively for teaching and learning.

2008 Data Findings

Since the publication of *Learning in the 21st Century*, online learning and virtual schools have become mainstream news. Today, online or virtual schools are established in 29 states, according to the 2009 *Education Week Technology Counts Report.*[1] Despite this new level of awareness and state-level commitment, Project Tomorrow® found that online classes are primarily offered to teachers, according to 58% of principals, compared to students (31%).

Students report widespread interest in online learning, but few opportunities to take courses. Almost half of 6-12th graders have researched or are interested in taking an online class, and more than 40% believe that online classes should be part of an ideal school, yet only one in ten 6-12th grade students have taken an online class *through their school*. While students pursue online learning to gain more control of the learning experience, have access to more courses, get extra help and work at their own pace, the top priority for principals to offer online learning is for remediation and credit recovery. Rather than widespread access, online learning is being offered as an add-on or alternative. Speak Up also shows that teachers who have more experience with online learning—by taking or teaching an online class—are more likely to agree with students that self-directing the learning process is a key benefit to online learning. Our analysis suggests that for online learning to take hold in schools, teachers will have to be prepared to teach online, not just experience online learning through their professional development.

Free Agent Learners and the Growing Demand for Online Learning

Clayton Christensen makes a bold prediction in *Disrupting Class*, a national bestseller on the future of education, that 50% of all high school classes will be delivered online by 2019[2]. Christensen argues that online learning will provide students the educational opportunities they seek, and by meeting that demand,

will disrupt the current educational system. If the Speak Up students had their way, they would not have to wait until 2019 or high school to learn online.

According to 2008 Speak Up results, when asked to imagine their dream school, middle and high school students were twice as likely as adults to select online learning as a technology with the greatest positive impact on learning (44% of 6-12th graders compared to 28% of principals and 21% of parents and teachers). Awareness among 6-8th graders has caught up with their older peers with 42% choosing online learning as a component of the ultimate school, a 40% increase from 2006.

District priorities and availability of online classes have not caught up with student demand. While almost half of high school students have researched or are interested in taking a class online, just 10% have actually done so at school. The experience is nearly identical for middle school students. Slightly more middle school students (7%) than high school students (4%) have taken an online class outside of school, suggesting that the next generation of students is even more likely to pursue online what cannot be found at school, as Christensen predicts.

When asked why learning through an online class might make school more interesting, 47% 9-12th graders, 39% of 6-8th graders and one in four 3-5th grade students want to learn online to "be in control of my learning." They do not expect courses to be easier online, but they do expect the online format to make it easier to succeed because they can review materials when they want and are more comfortable asking teachers for help. Teachers who have taught online classes overwhelmingly agree on the advantages: 76% believe that online learning benefits students by putting them in control of their own learning, compared to 10% of all teachers who participated in the surveys.

Figure 1: Students Speak Up about Reasons for Taking Online Classes
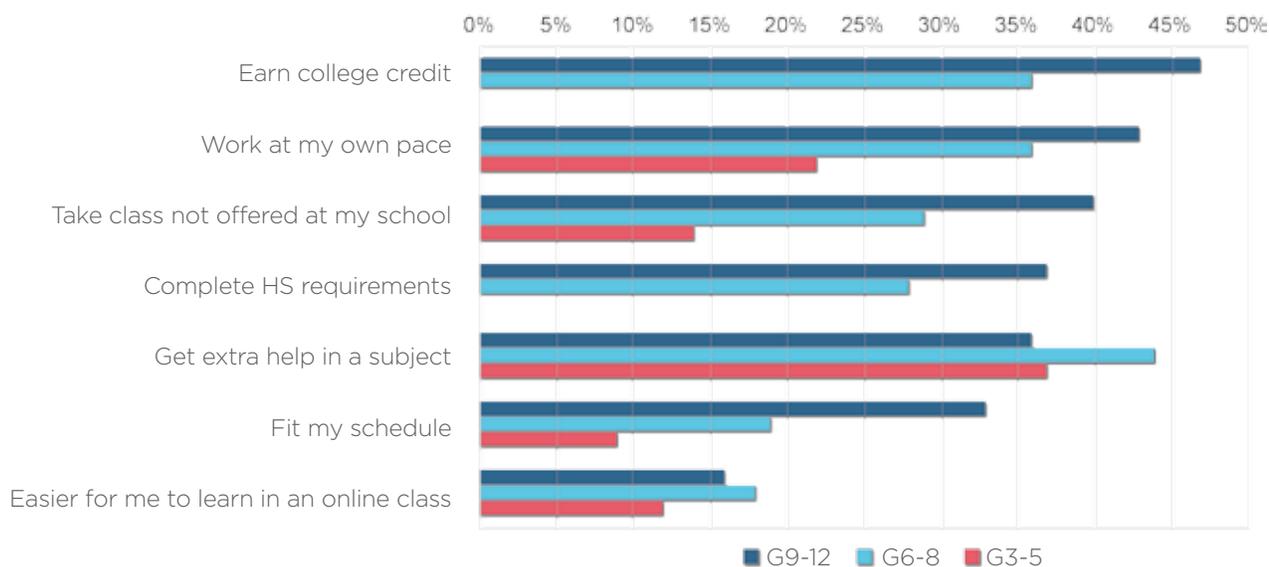
technology with the greatest positive impact on learning.

Middle school and high school students continue to have different priorities for taking online classes (Figure 1). Older students were most likely to desire online learning to earn college credit, while more middle school students would pursue online learning to get extra help in a subject. The number of middle school students interested in pursuing college credit with online courses increased by 29% from 2006 to 2008. Students of all ages see online learning as a way to work at their own pace.

Barriers to Implementing Online Classes

Most principals believe their school should offer online classes. More than one-half of the principals reported districts (or schools) are more likely to provide online classes to teachers rather than students (31%). When schools do offer online classes to students, the course content is primarily focused on providing remediation services and credit recovery, offering scheduling alternatives and keeping students engaged in school. Online classes are most likely taught as a hybrid course: online combined with face-to-face learning.

The barriers to offering online learning courses are consistent with the challenges to technology implementation generally: funding and teacher preparation. In addition, 16% of principals are concerned that students do not have access to Internet-connected computers. Twenty-two percent of principals report online learning is not a funding priority in their district and 20% cite limited state funding as barriers to providing online classes at their school. Many education leaders believe that changes to school funding policies will be a key factor in determining the future of online learning—whether it is generally available to all students or limited to particular courses and students.

Even more importantly, principals report that relatively few teachers are willing to teach an online class. Specific to teachers, principals identify the following barriers to offering more online learning courses: teachers are not comfortable using the tools (18%) or teaching online (17%), are reluctant to try (14%), or their school does not have the expertise to create online courses (14%). The barriers were slightly higher for principals who do offer students online learning, suggesting that once the funding issues are resolved, availability of qualified teachers becomes a dominant issue.
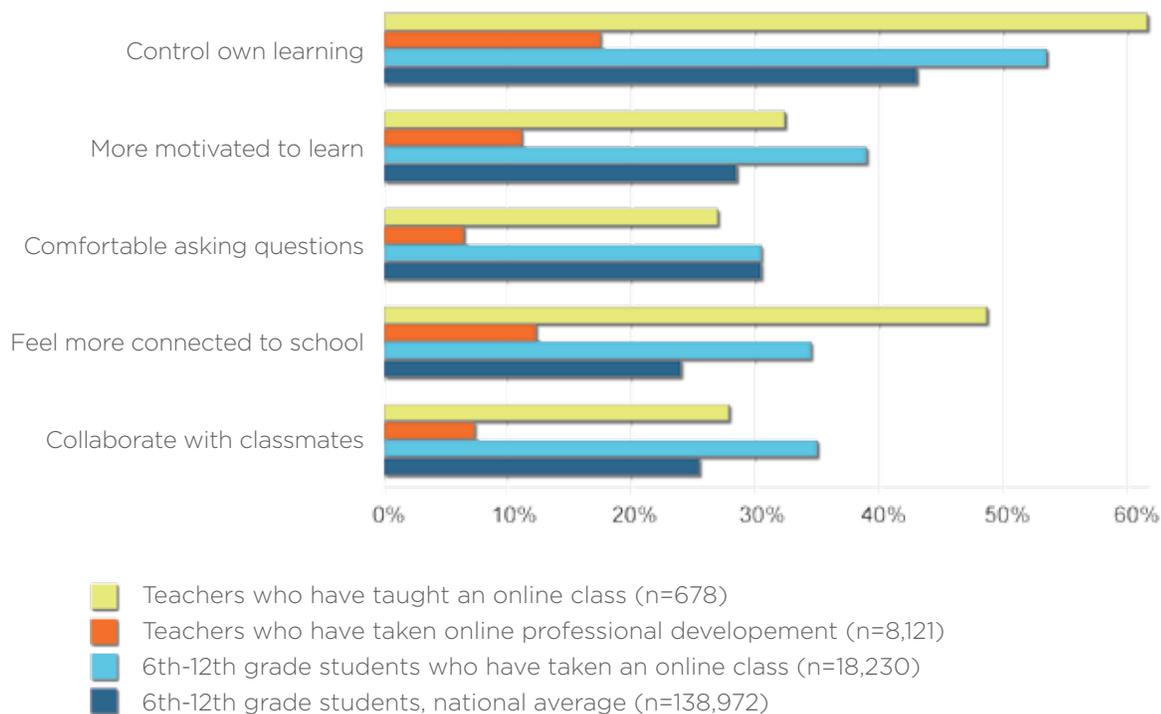
Teachers Become Online Learners

Many experts believe that teachers who learn online will become more comfortable with the technology and embrace teaching online classes. From the Speak Up 2008 data we learned that one-third of teachers have taken an online course for professional development (a 57% increase from Speak Up 2007 data), and one-fifth of teachers participate regularly in an online professional learning community. The top reason teachers prefer online professional development is

more flexibility in their schedule. Other benefits include the ability to customize learning, review materials as needed, and save time.

Principals and teachers are realizing that using technology to facilitate professional learning communities in schools and districts helps teachers' gain experience with informal, community-based learning online. Speak Up revealed that teachers would like to use technology in their professional learning community to take online courses and graduate-level courses, collaborate with colleagues at school and in

Figure 2: Students and Teachers Speak Up about the Benefits of Online Classes for Students

Legend:
- Teachers who have taught an online class (n=678)
- Teachers who have taken online professional developement (n=8,121)
- 6th-12th grade students who have taken an online class (n=18,230)
- 6th-12th grade students, national average (n=138,972)

other schools, and to access a centralized repository of teaching resources. Teachers would also like to use blogs, wikis, and podcasts to share best practices, and videoconferencing to connect with experts.

When asked how they currently use technology to facilitate professional learning communities, the responses of principals matched teachers' expectations with one exception. More than one-half of the principals reported that they used technology to give teachers electronic access to student achievement data, yet only one in four teachers requested access to students' data in this way.

The increase in online learners among teachers has not yet translated into a greater amount of teachers teaching online. In 2008, just 3% of Speak Up teachers reported to have taught a class online, a number that has not changed in three years. Only 13% of teachers are interested in teaching online, a considerable mismatch with the growing student desire to learn online.

Meeting Students' Demand for Online Learning

Will students pursue online learning on their own as *free agent learners* or will schools catch up to the digital advance team and offer more opportunities for student online learning? To better understand how attitudes toward online learning might be changing, Speak Up compared the response of teachers who have taught and/or taken an online class to Speak Up students and teachers generally. Teachers with online instructional experience were far more likely to identify control of learning as a benefit for students (Figure 2), the primary benefit cited by students of all ages.

When asked how online learning improved their effectiveness as a teacher (Figure 3), Speak Up teachers who had taught an online class were much more likely to respond that they had encouraged students to be more self-directed (67%), facilitated collaboration between students (48%), and facilitated student-centered learning (47%).
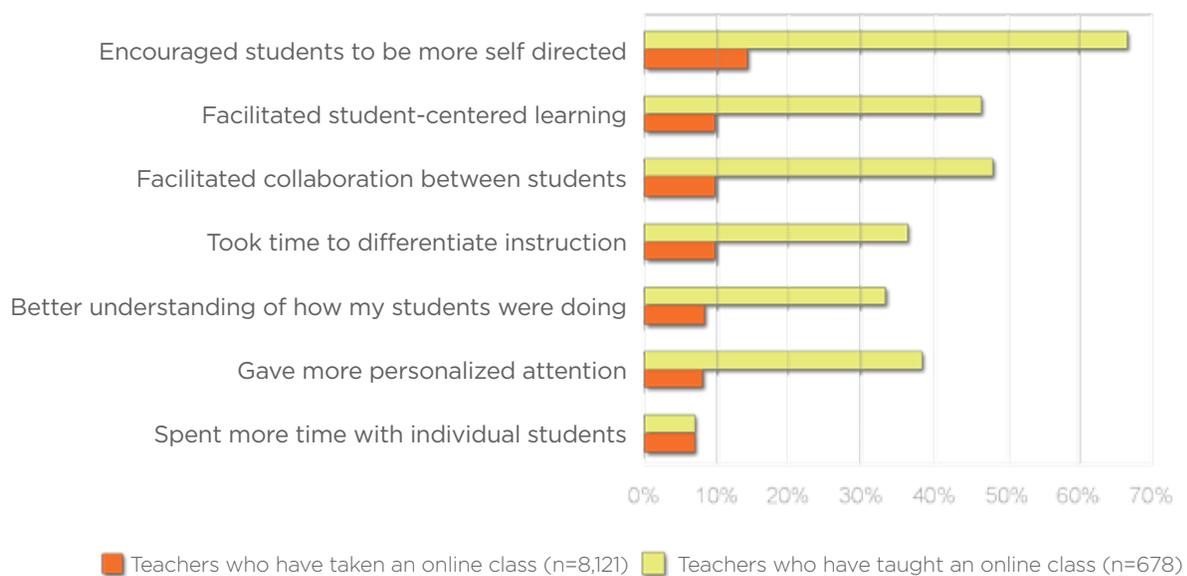
The sharp difference in teacher attitudes suggests that teaching an online class should be a top priority for pre-service training for 21st century learning. This is a new concept that is not yet echoed from principals in the findings. While 42% of principals reported that pre-service teachers should take an online class prior to completing their credentialing process, only 11% of principals expect pre-service teachers to have experience teaching an online class.

To understand and engage *free agent learners,* teachers and principals must not only become online learners, they must learn how to effectively use technology in a way that gives students more control of the learning process. Increasing interest in online learning among middle school students suggests that demand for more options will continue to grow. It will be up to principals, teachers, and parents to shift their thinking about the application of technology to learning to close the digital divide between what is available today and what is possible for learning. Their willingness to change will determine whether students are exposed to expanded learning opportunities through online learning offered by their school or continue to develop as *free agent learners*, pursuing information, knowledge and learning on their own without the guidance and support of the education professionals.

Figure 3: Teachers Speak Up about how Online Classes Improve their Effectiveness as a Teacher

Encouraged students to be more self directed
Facilitated student-centered learning
Facilitated collaboration between students
Took time to differentiate instruction
Better understanding of how my students were doing
Gave more personalized attention
Spent more time with individual students

0% 10% 20% 30% 40% 50% 60% 70%

■ Teachers who have taken an online class (n=8,121)   □ Teachers who have taught an online class (n=678)

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About Project Tomorrow®

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. Since fall 2003, the annual Speak Up project has collected and reported on the views of over 1.5 million K-12 students, teachers, administrators and parents representing over 18,000 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. Education, business and policy leaders report using the data regularly to inform federal, state and local education programs. For additional information, visit **www.tomorrow.org**.

About Blackboard Inc.

As a trusted advisor in education for over a decade, Blackboard enables K-12 districts to create connected, personalized learning experiences that can engage all learners regardless of time or place. By providing online learning solutions, Blackboard empowers schools and districts to modernize and organize how courses are created, managed, and delivered to both teachers and students. Each day over 12 million learners around the world use Blackboard solutions to support a 21st century educational experience that is engaging, individualized, and effective. **www.blackboard.com/k12**

[1] Hightower, A. M. (2009). Tracking U.S. trends: States earn B average for policies supporting ed. tech. use. *Education Week.* 28, 30-31.

[2] Christensen, C., M. B. Horn, C. W. Johnson (2008). *Disrupting class: How disruptive innovation will change the way the world learns.* New York, NY: McGraw-Hill.

Blackboard K-12

650 Massachusetts Avenue, NW 6th Floor
Washington, DC 20001
1-800-424-9299, ext. 2427

15707 Rockfield Blvd
Suite 330
Irvine, CA 92618
949 609-4660 ext 17

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