Learning in the 21st Century:

2011 TRENDS UPDATE

Blackboard® K-12

Project Tomorrow

Speak Up

www.tomorrow.org/speakup/

About the Speak Up National Research Project and Speak Up 2010

Speak Up is a national initiative of Project Tomorrow, the nation's leading education nonprofit organization dedicated to the empowerment of student voices in education. The Speak Up National Research Project annually polls K-12 students, parents and educators about the role of technology for learning in and out of school and represents the largest collection of authentic, unfiltered stakeholder voice on digital learning. Since fall 2003, over 2.2 million K-12 students, parents, teachers, librarians, principals, school technology coordinators and district administrators have shared their views and ideas through Speak Up. K-12 educators, higher education faculty, business and policy leaders report they regularly use the Speak Up data to inform federal, state and local education programs.

Demographics of reporting sample

In fall 2010, Project Tomorrow surveyed 294,399 K-12 students, 42,267 parents, 35,525 teachers, 2,125 librarians, 3,578 school/district administrators and 1,391 technology leaders representing 6,541 public and private schools from 1,340 districts. Schools from urban (34 percent), suburban (29 percent) and rural (37 percent) communities are represented. Over one-half of the schools that participated in Speak Up 2010 are Title I eligible (an indicator of student population poverty) and 34 percent have more than 50 percent minority population attending. The Speak Up 2010 surveys were available online for input between October 18, 2010 and January 21st, 2011.

The Speak Up surveys included foundation questions about the use of technology for learning, 21st century skills and schools of the future, as well as emerging technologies (online learning, mobile devices and digital content), science instruction and STEM career exploration. In addition, educators shared the challenges they encounter integrating technology into their schools and districts.

The data results are a convenience sample; schools and districts self-select to participate and facilitate the survey-taking process for their students, educators and parents. Any school or school district in the United States is eligible to participate in Speak Up. In preparation for data analysis, the survey results are matched with school level demographic information, such as Title I, school locale (urban, rural and suburban), and ethnicity selected from the Core of Common Data compiled by the National Center for Education Statistics (http://nces.ed.gov/). The data is analyzed using standard cross-tab analysis and key variables (such as internet and device access) are tested for statistical significance.

To minimize bias in the survey results, Project Tomorrow conducts significant outreach to ensure adequate regional, socio-economic and racial/ethnic/cultural distribution. To participate in Speak Up, organizations register to participate, promote the survey to their constituents and schedule time for their stakeholders to take the 15 to 20 minute online survey. Starting in February 2011, all participating organizations receive free, online access to their data with comparative national benchmarks. Staff from Project Tomorrow summarize, analyze, and verify the national data through a series of focus groups and interviews with representative groups of students, educators and parents.

Each year, Project Tomorrow®, a national education non-profit organization, facilitates the Speak Up National Research Project and, as part of this initiative, tracks the growing student imperative for online learning and how districts are meeting that demand. As outlined in the Speak Up 2010 national report on our K-12 student and parent findings, *"The New 3 E's of Education: Enabled, Engaged and Empowered - How Today's Students are Leveraging Emerging Technologies for Learning,"* (Project Tomorrow, 2011) students envision the role of emerging technologies in education very differently than their parents or their school's teachers or administrators. For today's students, emerging technologies such as mobile learning, online learning and digital content, hold great promise for creating a new learning environment that not only engages them in contextually-based content, but also enables greater personalization of the learning process, and empowers them to explore knowledge with an unfettered type of curiosity that is too often missing from traditional classroom settings.

Since 2007, Project Tomorrow has collaborated with Blackboard Inc. on a series of annual reports that focus on how online learning is changing the classroom paradigm within our nation's schools. In this latest update, we examine the Speak Up 2010 survey data collected from 379,285 K-12 students, parents and educators to highlight not only the continuing growth of online learning opportunities for both students and teachers, but also the new challenges that must be addressed to realize the students' vision for enabled, engaged and empowered learning through technology.

Online learning enables a greater personalization of the learning process for both students and educators and facilitates opportunities to collaborate with peers and experts, thus empowering a new sense of personal ownership of the learning process.

In this year's Trends Update, we focus on five key questions and provide new national data findings to help inform local, state and national discussions around online learning. This year's five key trends are:

▸ **Who is learning online?** In just three years, the number of high school students who have been involved with online learning has tripled and twice as many middle school students are now learning online as in 2008. Additionally, 36 percent of classroom teachers say they have now taken an online class for their own professional development.

> *Online learning enables a greater personalization of the learning process for both students and educators and facilitates opportunities to collaborate with peers and experts, thus empowering a new sense of personal ownership of the learning process.*

▸ **What is propelling this new level of interest and excitement around online learning?** There are three factors at work: increased personal familiarity with online learning by teachers and administrators, intensified demand for online learning opportunities by students and their parents, and the emergence of a new value proposition for administrators around online learning.

▸ **Can online learning really transform the learning process?** Yes, according to middle school students. They believe that the benefits of online learning go way beyond convenience in scheduling and can actually be the conduit to the more personalized learning environment they crave.

▸ **What is standing in the way of greater adoption of online learning in our nation's schools?** Despite this heightened interest level, administrators still report significant barriers to adopting or expanding online learning in their schools and districts. Most notable are the ongoing challenges associated with evaluating the quality of online courses and the lack of teacher interest in teaching an online class. Even within the more tech-savvy cadre of teachers with less than 10 years of experience, only one-third indicate an interest in teaching online.

▸ **What are the most effective motivators to increase the pool of teachers who want to teach online?** Understanding the significance of not having enough teachers interested in teaching online, Speak Up for the first time polled teachers on a range of potential motivators to help districts with their recruitment planning. Surprisingly, having a personal experience in an online professional development class does not directly translate into a strong desire to teach online.

Who is learning online?

Students, teachers, and administrators are all taking more online courses than before. Further, online learning continues to be an integral part of how students want to learn and it plays an increasingly prominent role in their vision for the ultimate school. Forty-three percent of middle and high school students now designate online classes as an essential component of their ultimate school vision. And administrators and parents are becoming more supportive of this vision. In fact, 39 percent more administrators and five times as many parents incorporate online classes into their vision for the ultimate school than in 2008.

Administrators are not just talking about the potential of online learning though. As evidenced by Figure 1, administrators expanded student access to online learning this year through several different models with the greatest growth in blended learning.

FIGURE 1: ADMINISTRATORS: TYPES OF ONLINE LEARNING PROVIDED TO STUDENTS
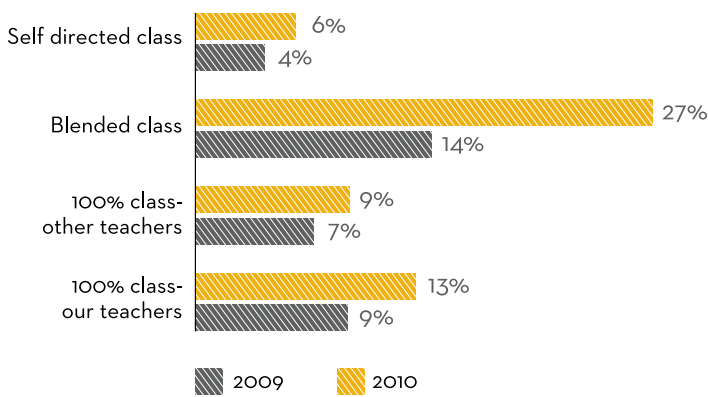
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The increased access is also supported by the students themselves with 30 percent of high school students and 19 percent of middle school students now report taking an online class for school. In just three years, participation by middle school students has doubled and high school student participation has tripled, as noticed in Table 1. In addition there is a growing untapped demand for online courses, as one-third of middle school and high school students tell us they are interested in taking an online course but have not yet, and 30 percent of 3rd-5th grade students report they would like to take an online course.

Students are not the only ones learning online, however. Teachers, librarians and administrators all report tapping into online classes to support their professional development needs. A majority of librarians (50 percent) and 27 percent of teachers have participated in a 100 percent online professional development class or workshop. A slightly smaller cadre has taken a blended online professional development course that included both online and face-to-face time (21 percent of teachers, 38 percent of librarians). Additionally, 36 percent of administrators report experience with online learning as part of their professional tasks and 21 percent note they have researched and taken an online class on their own time to specifically improve their leadership capabilities.

Just as we witnessed with the students, teachers highly value the online learning experience and one-third would like to see their districts offer more online professional development. As a continuing recognition of the power of online learning, teachers would also like their professional learning communities to be more technology-enabled. For example, 40 percent would like to be able to use technology tools to collaborate with teachers both at their own school and at other schools. One-quarter would like this new technology-enabled learning community to include easy access to student data to inform their teaching practice and an emerging cohort of teachers would leverage blogs and wikis (14 percent) to share best practices with their peers.

TABLE 1: GROWTH IN STUDENT PARTICIPATION IN ONLINE CLASSES

Type of online participation	Middle School Students			High School Students		
	2010	2009	2008	2010	2009	2008
Took an online class for school	19%	13%	9%	30%	18%	10%
Took an online class for personal reasons	5%	8%	7%	8%	9%	4%

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Administrators are listening and responding to the new student and teacher demands for more online learning. When asked about their primary audience for online learning, 53 percent of administrators rank their teachers as number one, followed by traditional students (40 percent) and then administrators (36 percent). What is most noteworthy is the increase in the prioritization of students as an important audience; an increase of 66 percent from 2008 to 2010.

What is propelling this new level of interest and excitement around online learning?

Students and parents are increasingly interested in the potential of online learning to engage, enable and empower a new paradigm for learning. And teachers are also realizing the same key benefits within their own professional development experiences. This new demand for online learning from such key constituents, as well as their own enhanced familiarity, is providing a unique opportunity for administrators to re-evaluate their perceptions and perspectives on the value of online learning. This new examination is yielding some interesting insights into the priorities for offering online classes, especially for students.

In 2008, administrators reported the number one priority for online learning with students was credit recovery and academic remediation. In just three years, the value proposition for administrators has expanded to address a greater portion of their student population with a wider variety of needs, as noted in Table 2. As seen in the recent data, district level administrators have a markedly stronger value proposition for online learning than school site principals. This may be in part a result of their increased personal familiarity with online learning through their own professional development experiences.

Administrators' view on the value of student engagement within online learning is an important consideration in this discussion. In 2008, only 23 percent of administrators believed that online learning could be a significant tool in their arsenal for more effectively engaging students in school. The 2010 data reveals that 38 percent of administrators now appreciate the benefits of increasing student engagement through online learning. As administrators become more involved with online learning,

TABLE 2: VALUE OF ONLINE LEARNING FOR STUDENTS

Value of Online Learning	Principals	District Admin.
Keeping students engaged in school	37%	46%
Increasing graduation rates	32%	44%
Offering academic remediation	32%	39%
Providing scheduling alternatives	25%	37%
Having programs for at risk students	23%	29%
Offering dual enrollment courses	15%	20%
Providing advanced coursework	14%	25%

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through both their own use and their pilot programs, they are gaining a deeper understanding of its immense potential to transform learning.

Can online learning really transform the learning process?

As voiced by the students themselves, online learning environments empower greater personal ownership of their learning process, whether it is exercising control over their schedule, taking online courses to earn college credit or transforming their learning by creating a more personalized experience. Interestingly, however, we have found that middle school students and high school students have a slightly different perspective on the value and benefits associated with online learning. And that the younger students in grades 6 – 8 are actually the ones who have a clearer insight into how online learning can be an agent for education transformation.

Online learning can support traditional learning environments as well as provide a way for districts to explore ways to more directly personalize learning for their students. When asked to rank the

TABLE 3

High School Students: Online learning supports traditional learning
Class would better fit my schedule (54%)
I could earn college credit (53%)
It would be easier to review class materials as many times as I want (38%)
Take class not offered at my school (33%)

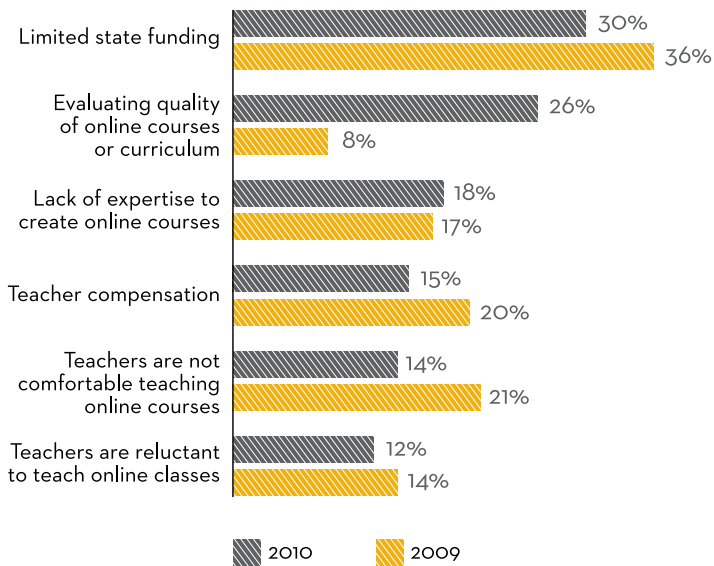| Middle School Students: Online learning supports transformational learning |
|---|
| I would get extra help in a subject that is hard for me (44%) |
| I would be more comfortable asking my teacher questions (36%) |
| I would be more motivated to learn (32%) |
| It would be easier to share ideas with my classmates (27%) |

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benefits of taking an online class, students in grades 6-12 that have not yet taken an online class agree on the same perceived value statements: "I would be in control of my learning" and "To work at my own pace." However, when we do a deeper dive into the data as noted in Table 3, we see that middle school students have a different set of reasons for taking an online class than their older peers. The middle school student list includes items that signal a more engaging, personalized and collaborative learning environment. The high school student list reflects the valuable benefits of access and convenience, but it does not present a real change to the basic learning paradigm.

What is standing in the way of greater adoption of online learning in our nation's schools?

Even though administrators place a higher value today on online learning, the supply of online courses still falls short of student demand and students face a variety of institutional barriers when attempting to take an online course. Over one-half of middle school students and 38 percent of high school students tell us their schools do not yet offer online courses. And if the school does offer online courses, students tell us they don't know what courses are offered (44 percent) or how to register for those courses (36 percent).

Despite this increased demand, administrators clearly acknowledge that there are still barriers that inhibit them from adopting or expanding online learning in their schools or districts with the number one deterrent continuing to be limited state funding. As a reflection of the still emerging nature of online learning, administrators' views on the next tier of barriers are highly dynamic and still evolving. In 2009, the top barriers identified by education leaders revolved around their teachers - attracting, training and compensating online teachers. In 2010, those issues are still significant; however, administrators have a new list of concerns and obstacles. Almost a third of administrators are now concerned about the quality of the student-teacher interaction online and 28 percent note that creating online courses that are academically rigorous is a barrier. Most notably, administrators are also much more concerned in 2010 with how to evaluate the quality of online courses, as noted in Figure 2. These new concerns of administrators reflects their more sophisticated and informed understanding of what it takes to be successful with

FIGURE 2: ADMINISTRATORS' IDENTIFY BARRIERS TO OFFERING ONLINE COURSES

Limited state funding
- 2010: 30%
- 2009: 36%

Evaluating quality of online courses or curriculum
- 2010: 26%
- 2009: 8%

Lack of expertise to create online courses
- 2010: 18%
- 2009: 17%

Teacher compensation
- 2010: 15%
- 2009: 20%

Teachers are not comfortable teaching online courses
- 2010: 14%
- 2009: 21%

Teachers are reluctant to teach online classes
- 2010: 12%
- 2009: 14%

■ 2010   ■ 2009

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online learning and a greater focus on the institutional issues such as evaluating the quality of online curriculum or developing their teachers' capacity to develop curriculum.

Anticipating this new focus on determining course quality, the Speak Up 2010 survey polled administrators and school technology coordinators about the factors they considered most important when evaluating online courses. Although the quality characteristics differ slightly amongst administrators and school technology coordinators, key themes still emerge, as noted in Table 4. Administrators and school technology coordinators agree that the curriculum must align to the content standards, be easy to use for students and teachers and result in increased student achievement. Furthermore, 40 percent of administrators place a high value on having imbedded assessment within the curriculum and 49 percent of school technology coordinators say the online curriculum should be easy to implement and integrate with a course management system.

Online learning can support traditional learning environments as well as provide a way for districts to explore ways to more directly personalize learning for their students.

TABLE 4: WHICH OF THESE FACTORS WOULD YOU CONSIDER MOST IMPORTANT WHEN EVALUATING THE QUALITY OF ONLINE COURSES?

Most important factors	Administrators	School Technology Coordinators
Student Results		
Student achievement results after taking the course	54%	53%
Student completion rates for the course	36%	30%
Standards Alignment		
Aligned to content standards (state, national, provincial)	77%	81%
Aligned to iNACOL National Standards of Quality for Online Courses	17%	15%
Curriculum		
Ease of use for students and teachers	63%	79%
Includes embedded assessments	40%	36%
Integrates digital content	21%	38%
Authenticity		
Developed by classroom teacher(s) or curriculum specialists	42%	
Recommended by professional organizations, State Department of Education or Ministry of Education	20%	27%
Developed by an organization with online learning expertise	20%	29%
Online course used by schools/districts similar to my own	14%	17%
Recommended by my colleagues	14%	19%
Developed by instructional designers	14%	24%
Online course used by virtual school	7%	10%
Technology Considerations		
Students can use a variety of hardware/software platforms	21%	31%
Content can be shared across different learning management systems		31%
Supports a variety of course and scheduling options		20%
Easy to implement and support a course management system		49%

Administrators' focus this year appears to be on the larger institutional issues around implementing online learning, but the challenge of finding enough teachers to teach online remains a formidable barrier. And while teacher interest in teaching online classes has increased 100 percent since 2008, the percentage of teachers who say they are interested in teaching online in 2010 is still only 26 percent. Even when we examine the views of our presumably more tech-savvy teachers who have been in the classroom less than 10 years, the pool only increases to one-third. To meet the growth in the demand of students and parents for more online learning opportunities as we have reported, our districts must think differently about how to recruit a new and more sizeable cadre of online teachers. Step one in the process is to better understand what might motivate a teacher who has no experience or interest in teaching online to reconsider their views.

What are the most effective motivators to increase the pool of teachers who can teach online?

For the first time, Speak Up 2010 polled teachers on a range of incentives to better understand what might motivate them to consider teaching an online course. To assist districts with their planning, we compared the views of two potential recruitment audiences: teachers who say they have not taught an online class but are interested (26 percent of teachers) with teachers who specifically state they are not interested in teaching online (39 percent of teachers). We also divided the motivators into five distinct categories – working conditions, professional development, professional satisfaction, curriculum, and job opportunities. As noted in Table 5, we see a significant gap between the views of the two distinct teacher groups. And while their rank order on the motivators is similar, the level of interest is dramatically different. So, for example, teachers that express a desire to teach online would be most motivated by flexibility in working conditions (78 percent), increased compensation (65 percent) and being provided with the necessary technology tools (60 percent). Teachers who say they are not interested in teaching online identify increased compensation as their number one incentive (37 percent) followed by flexibility in working conditions (32 percent) and being provided with the technology (25 percent). This pattern of difference between the two groups is consistent throughout the data findings with the most dramatic gap evident in the incentive "working with more motivated students." While 53 percent of the interested teachers label that as a strong motivator for them, only 16 percent of the non-interested teachers feel the same way. This cohort's lukewarm reception to all of the motivators most likely indicates that the teachers that say "not interested" are firm in their convictions and will be difficult to incentivize to teach an online course.

Teachers that express a desire to teach online would be most motivated by flexibility in working conditions (78 percent), increased compensation (65 percent) and being provided with the necessary technology tools (60 percent).

TABLE 5: TEACHERS IDENTIFY A VARIETY OF INCENTIVES THAT WOULD MOTIVATE THEM TO TEACH ONLINE COURSES

Incentives	Interested in Teaching Online Course	Not Interested in Teaching Online Course
Working Conditions		
Flexibility in working conditions	78%	32%
Increased compensation	65%	37%
Working with other innovative teachers	39%	13%
Increased prestige and recognition	26%	7%
Develop a more personalized approach to my teaching practice	23%	5%
Professional Development		
Understanding requirements for teaching effectively in an online course	45%	20%
Talking to teachers who are successful teaching online courses	45%	19%
Learning a new set of professional skills	41%	12%
Co-teaching an online course	37%	22%
First-hand experience by taking an online course	26%	9%
Professional Satisfaction		
Work with more motivated students	53%	16%
Select preferred teaching assignments	35%	13%
Teach at-risk students	27%	7%
Create my own course	27%	7%
Teach gifted students	26%	7%
Curriculum		
Provide the necessary tools to facilitate the course	60%	25%
Provide the curriculum to teach the course	47%	21%
Job Opportunities		
Know about job opportunities for teaching online classes	58%	15%
Know that current credentials are sufficient for online courses	43%	13%

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It is also noteworthy that some motivators that might otherwise be considered strong incentives are not well received even by the group of teachers who express an interest in teaching online. Despite conventional wisdom, only one-quarter of teachers value increased prestige and recognition or the ability to create one's own course as a meaningful motivator. Also noteworthy is the lack of real benefit associated with having a personal experience with an online course. However, the 40 percent of teachers who state that online courses are their preferred professional development methodology are more likely to also indicate an interest in teaching online.

As districts investigate how to meet the increased demands for online learning, it appears that the key audience for a strategic recruitment effort would be teachers with less than 10 years of experience who value online learning for their own professional

development and explicitly express an interest in learning about online teaching. Since the size of that recruitment pool is probably still not large enough to meet the increasing demand, administrators are also going to need to think differently about the technology experiences and training of their new, incoming teachers. Administrators are on the right track when they indicate that they would like pre-service teachers to have online learning experience (34 percent) and experience in an online learning community (42 percent) as pre-requisites for certification.

Future Questions

Project Tomorrow in collaboration with Blackboard provides these annual Trends Updates to stimulate a lively and creative discussion around how to more effectively enable, engage and empower new online learning environments. In this year's update, we shared the latest Speak Up data on who is currently experiencing online learning and why students, parents, teachers and administrators are increasingly intrigued by the potential transformative nature of online learning. Additionally, we looked at the concerns and challenges faced by our administrators as they adopt and expand online learning in their districts. We took that conversation one step further and faced one of the most formidable barriers head-on by examining

how to motivate more teachers to teach online. And while all of these new data findings will certainly fuel interesting discussions and inform local, state and federal policies and programs, there are still other provocative questions that are worthy of our consideration as well.

▶ What are the expectations and aspirations of elementary students and even younger learners for online learning? Are we ready to meet those specific challenges?

▶ What new models of online learning delivery are required to address the needs of an increasingly mobile learning community?

▶ As online learning redefines the learning process for students, how will we correspondingly redefine the role of the teacher? What new professional development approaches are required?

▶ With an increased focus on justifying technology investments, how can administrators tap into return on investment and value of investment strategic thinking to assist in their planning for online learning?

▶ Will online learning be the ultimate magic key that allows every student entry into a new kind of classroom where learning is truly personalized, collaborative and engaging?

About Project Tomorrow

Project Tomorrow® is the nation's leading education nonprofit organization dedicated to the empowerment of students voices in education. With 15 years experience in the K-12 education sector, Project Tomorrow® regularly provides consulting and research support about key trends in K-12 science, math and technology education to school districts, government agencies, business and higher education.

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About Blackboard

Blackboard Inc. is a global leader in education technology that transforms the experience of millions of students and teachers every day. Blackboard works with states, K-12 districts and virtual schools to expand educational opportunities, create collaborative learning communities and increase engagement for students, teachers, parents and administrators. With Blackboard's online and mobile solutions, educators are closing the gap between the way students live and the way they learn through personalized, connected learning experiences that meet the needs of the K-12 classroom and the 21st century. Blackboard is headquartered in Washington, D.C., with offices in North America, Europe, Asia and Australia. Learn more at blackboard.com/k12/learn.