Trends in Digital Learning: 
Students’ Views on Innovative Classroom Models

“When students are using digital resources, building multi-media projects, collaborating and connecting online, and conducting online research, they are more interested in schoolwork today and feel more connected to what their future holds tomorrow.”

Dr. Mark Edwards,  
Superintendent of the Mooresville Graded School District, North Carolina

Just like the education leadership in Mooresville Graded School District, many school and district leaders are realizing the benefits of leveraging digital learning to not only increase student engagement, but also to help students develop college and career-ready skills and connect academic knowledge to future success.

It follows that 40% of district administrators identified the implementation of blended learning environments as having the greatest impact on transforming teaching and learning in their districts today. Additionally, per the latest Speak Up research findings, one quarter of administrators recognized the impact of online classes and one-to-one mobile learning initiatives as a transformational agent for student learning.
This high-value proposition of digital learning translates into more access for students to these types of new learning experiences. Almost two-thirds of teachers say that they are utilizing online curriculum, tools, and resources in their classroom today in some flavor of blended learning. And 37% of school principals say they are now offering their students a menu of online classes in addition to traditional face-to-face instruction. This changing landscape within schools for digital learning is driven by many factors. In last year’s trends report, 2013 Online Learning Trends: Virtual, Blended and Flipped Classrooms, we examined teachers’ perspectives on the effectiveness of various modes of digital learning. In that report, for example, we identified that teachers gained a new appreciation for the value of online learning after taking an online professional development course themselves. Increases in student and parent interest in online learning are also driving the demand for more online learning in schools. Four out of ten middle school students who have not taken an online class now say that they would like to experience that type of learning, almost two times the number of students who responded to the same question in 2006. Parents’ interest in online classes as an optimum learning mode for their children has also increased in the past few years. One-third of parents (35%) now say that they would endorse their child’s school making a greater investment in online classes, and 15% say that the lack of online classes is a significant concern about their neighborhood school. Similar increases in parental and student interest exist for blended or flipped learning environments and for the use of mobile devices within instruction. For example, parents are increasingly interested in the use of digital content within their child’s learning experience. While only one-third of parents in 2008 identified digital content as part of their vision for the ultimate school, 47% of parents did so in 2013. Parents are also particularly enamored with the idea of mobile devices as a means to personalize instruction for their child. The Speak Up data results demonstrate a 63% increase in the number of parents who see mobile devices as providing this type of benefit from 2007 to 2013.

This combination of increased valuation of the role of various forms of digital learning, new familiarity with the tools, and strong demand by students and parents is developing into an interesting inflection point for our nation’s schools and districts. And while many, like Mooresville Graded School District, are already providing a wide range of various digital learning experiences for their students, others are still exploring how to effectively tap into these tools as a means for improving student outcomes especially in terms of supporting college and career readiness. To support that exploration and to provide new value to existing digital learning implementations, this year’s trends report focuses on understanding the student perspective on the impact and benefits of innovative classroom models that are effectively leveraging technology. As a focused case point, this report examines the experiences of students who are in virtual schools or who have taken an online class in addition to their traditional face-to-face instruction.
A sampling of students’ perspectives regarding these new and innovative classroom models includes:

› Students report that they use mobile devices in the classroom to both make their existing schoolwork processes more effective and to transform the way they approach learning.
› Students are using digital tools to support collaborative writing, both in and out of the classroom, reflecting the importance of good writing skills as a prerequisite for college and career readiness.
› Students in online learning environments are more interested in what they are learning at school, more motivated to do well, and feel a stronger connection to their school than other students.
› Students have a clear idea of the value of digital learning within various innovative classroom models. They are especially interested in the use of social media to provide opportunities for them to connect and collaborate with peers and experts, mobile devices that enable untethered learning experiences, and online, blended, and flipped classes that that marry digitally rich content with real-world relevance.

Each year since 2003, Project Tomorrow®, a national education nonprofit organization, facilitates the annual Speak Up National Research Project and, as part of this initiative, tracks the growing student, educator, and parent interest in online learning, as well as how our nation’s schools and districts are addressing that interest with digital learning opportunities in and out of the classroom. Since 2007, Project Tomorrow has partnered with Blackboard Inc. to create a series of annual reports that focus on the year-to-year trends in the use of digital learning tools to change the classroom learning paradigm through an in-depth analysis of the latest Speak Up national findings. In this latest update report, we examine the trends from our analysis of the Speak Up data collected in fall 2013. More than 403,000 K-12 students, parents, educators, and community members participated in Speak Up 2013, and their insights of students, particularly on online learning, are the impetus for this year’s trends report.
Introducing the students who are learning in online environments today
Many of the current national discussions around digital learning focus on the building blocks that are essential to support blended and fully virtual classes such as the state and local policies, selection of content and infrastructure platforms, format of the class, assessment mechanisms, and the recruitment and training of teachers. These are critically important components worthy of comprehensive and strategic planning. However, something is missing. Few conversations today revolve around the views and values of students relative to their online learning experiences or their aspirations for innovative digital learning environments. As the number of students engaged in online learning continues to grow each year, it is equally important that these pioneering students who are on the front line of this new approach to learning have an opportunity to share their firsthand experiences to inform planning, programs, and policies within their schools. The Speak Up National Research provides a unique mechanism for illuminating the ideas of students who have had online learning experiences as well as those who have not. Given that 20% of middle school students and 30% of high school students now report for the first time having had an online learning experience as part of their education, it is imperative that we learn more about these students’ experiences and their thoughts on the benefits and importance of this learning modality.

So, who are the students who have had online learning experiences? To gain a new understanding of the profile of the online learner, we examine students in grades 6 – 12 who say they have participated in at least one of the following types of online learning experiences:

› Attend a fully online school where all of their classes are delivered over the Internet (N = 10,325 students)
› Have taken at least one self-study type online class for school credit in addition to traditional face-to-face classes at their school (N = 17,429 students)
› Have taken at least one teacher-led online class for school credit in addition to traditional face-to-face classes at their school (N = 17,627 students)
› Have taken at least one online class on their own to pursue their own personal academic interests (N = 13,941 students)

Amongst this specific population of students learning online, several characteristics distinguish these students from their peers. However, there are also shared characteristics that appear to represent the student population at large without regard to online learning access. Amongst the shared characteristics is students’ self-assessment of their technology skills. Conventional wisdom has led us to believe that interest in online learning is exclusively the domain of the more technology-sophisticated student. However, online learning students are only slightly more likely than other students to identify themselves as advanced technology users. Within the general student population in middle and high schools, approximately one-quarter (24%) of students say they are advanced in their tech usage and skills; 27% of students in online learning environments see themselves at that same level. The only significant difference is within the sub-group of high school students who have taken online classes on their own; three out of ten (30%) of those students consider their tech skills advanced.
Students’ use of social media also appears to be a universal characteristic of today’s youth with both online and traditional education students using the same tools for similar tasks. Commonly held practices include communicating with peers via social networking sites, following blogs that interest them, viewing online videos, using mobile apps for game playing, and tapping into tools such as Pinterest and Evernote for self-organization.

From a grade-level perspective, we see similar percentages of students from grades 6 through 12 involved in online learning with some slight differences in the types of online learning environments. For example, amongst high school students, seniors (31%) are more likely to be taking a self-study online class than freshman (22%).

The most significant defining characteristic within the online learning student profile appears to be gender, however. Within the online learning student cohort across both middle school and high school, there is a larger percentage of boys in many categories. This gender difference is particularly striking in middle school where, for example, 59% of the students who have taken an online course in either a self-study or teacher-led model, are boys. As Chart 1 illustrates, the situation is slightly different in high school. While the percentage of high school students in virtual schools is still more boys than girls, girls outpace boys in taking self-study online classes, and there is no gender differentiation with teacher-led courses.

While it is interesting to explore conceptually various profiles of the optimum online learner, the bottom line for students is that they universally share a strong interest in how online learning environments can empower them to realize a more personalized education process. By examining the views of online learning students, we can gain a new understanding of the impact of that changed learning environment.

**Examining the impact of students’ digital learning experiences**

*Online learning.* Relative to the impact of online learning on students’ education experiences, two key findings emerge from this year’s analysis of the Speak Up data. First, students with online learning experiences are more likely than other students to use a wider range of digital tools and resources, including several very sophisticated...
tools, to support their learning process. Second, students who have had rich experiences with online learning have different expectations for using digital tools within learning. Subsequently, these expectations—in concert with their online experiences—influence their impressions about the value of their overall school experience.

**Online learners’ use of digital tools.** As would be expected, students in various types of online learning environments have greater access to Internet resources such as online databases, podcasts, and virtual experiments. These tools most likely are incorporated into their online class curriculum. However, we see that online learning students also participate in various online activities and behaviors including virtual communications and collaborations that potentially can impact their readiness to be successful in 21st century college environments and future jobs. Table 1 compares the use of digital tools by high school students in virtual schools with high school students who have not had any online learning experiences.

Familiarity with online assessments, use of digital tools for communications, and participation in online peer review of self-developed content are experiences that will support students in not only post-secondary education but in future jobs as well. It is also noteworthy that one out of five high school students uses digital tools to support collaborative writing. Parents, educators, and community members all identify effective communications through writing as a prerequisite skill for college and career readiness. Thus, it is important to see how the increased access to digital tools translates into more writing opportunities for students. While high

<table>
<thead>
<tr>
<th>DIGITAL LEARNING ACTIVITIES</th>
<th>Students Gr 9–12 in Virtual Schools</th>
<th>All Students in Gr 9–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take tests online</td>
<td>63%</td>
<td>52%</td>
</tr>
<tr>
<td>Access online databases</td>
<td>42%</td>
<td>36%</td>
</tr>
<tr>
<td>Watch a teacher-created video</td>
<td>34%</td>
<td>22%</td>
</tr>
<tr>
<td>Text with the teacher</td>
<td>33%</td>
<td>18%</td>
</tr>
<tr>
<td>Post self-created content online for review by peers</td>
<td>32%</td>
<td>24%</td>
</tr>
<tr>
<td>Listen to a podcast</td>
<td>28%</td>
<td>16%</td>
</tr>
<tr>
<td>Conduct virtual experiments</td>
<td>27%</td>
<td>17%</td>
</tr>
<tr>
<td>Post to a blog</td>
<td>24%</td>
<td>15%</td>
</tr>
<tr>
<td>Write collaboratively</td>
<td>21%</td>
<td>21%</td>
</tr>
</tbody>
</table>

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school students are increasingly tapping into digital tools to support both self-directed and teacher-directed writing, students in virtual schools are outpacing their peers in terms of the variety and frequency of writing in digital writing formats as noted in Chart 2.

Our examination of middle school students demonstrated a similar trend in students’ increased access to and usage of digital tools and resources within learning. This was particularly noteworthy in regards to how these students in grades 6 – 8 were using various communications and collaborations tools. For example:

› Middle school students in virtual schools were more likely to use Twitter to communicate or follow others (18% of virtual school students vs. 11% of other middle school students)

› They are also more likely to text message with their teachers (25% vs. 11%)

› They more regularly use webcams, Skype, and online chats to communicate and collaborate with classmates (35% vs. 26%).

The type of experiential learning opportunity, enhanced and augmented by the use of digital tools and resources, appears to be standard practice within many online learning environments and can be an exemplar for using technology within other innovative classroom models. Not surprisingly, these practices also support the goals of many parents, administrators, and community members in terms of supporting students’ preparedness for future success. When asked to identify the types of college and workplace skills that students need to acquire to be

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**Chart 2: High School Students’ Use of Digital Tools to Support Writing**

<table>
<thead>
<tr>
<th>Activity</th>
<th>All Students</th>
<th>Students in Virtual Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative Writing, Journaling, Poetry</td>
<td>34%</td>
<td>38%</td>
</tr>
<tr>
<td>Blogging</td>
<td>20%</td>
<td>32%</td>
</tr>
<tr>
<td>Creating Digital Books/Magazines</td>
<td>10%</td>
<td>27%</td>
</tr>
<tr>
<td>Backchannel Discussion in Class</td>
<td>9%</td>
<td>26%</td>
</tr>
<tr>
<td>Music Composition Writing</td>
<td>14%</td>
<td>23%</td>
</tr>
<tr>
<td>Gaming Conversational Text</td>
<td>13%</td>
<td>22%</td>
</tr>
<tr>
<td>Editing Wiki Sites</td>
<td>8%</td>
<td>21%</td>
</tr>
</tbody>
</table>

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successful, 80% of district administrators and a similar percentage of community members called out learning effective technology skills specifically. More than two-thirds of parents (69%) agreed.

**Blended and flipped learning.** Teachers’ increased access to digital content and online curriculum has facilitated the opportunity for new blended and flipped learning environments. First reported in last year’s trends report, teachers now identify their use of digital learning tools within the context of an innovative classroom model such as a blended classroom or a flipped classroom. This is especially true in terms of teachers reporting about the extent of blended learning within their classroom. As noted in Table 2, almost two-thirds of classroom teachers (62%) see their classroom as a blended-learning environment with the regular usage of online content and online curriculum to support student learning—an increase of 32% in just one year. While the other types of blended-learning models are still emerging, it is noteworthy that the percentage of teachers that said they were not supporting a blended-learning model in their classroom dropped only one in five in 2013.

One of the most interesting new blended learning models is the flipped-learning classroom. Many educators are defining the flipped classroom as one where key components of traditional education are facilitated through videos, podcasts, and readings that the student does outside of the class period, reserving class time for project-based learning and one-on-one remediation. While only 8% of classroom teachers say they have currently implemented this type of an innovative classroom model, 17% say they are interested in professional development on this topic. What should be most compelling to educators, however, is that 62% of students in grades 6 – 12 say that this type of a learning environment would be more successful for them.

<table>
<thead>
<tr>
<th>WHAT TYPE OF BLENDED LEARNING</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blending of F2F with online content/curriculum</td>
<td>62%</td>
<td>47%</td>
</tr>
<tr>
<td>Rotation model between home and school</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Self-paced online instruction at school with F2F teacher support</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Online course at school with remote teachers</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Flex model for students taking online course alongside traditional classes</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Primarily online learning from home with F2F teacher interaction</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>None of the above</td>
<td>20%</td>
<td>35%</td>
</tr>
</tbody>
</table>

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**Mobile learning.** Given that approximately one-third of classroom teachers say that students in their classroom have regular access to mobile devices, either school provided or their own, the views of students as to how they have used these devices to impact learning is another exemplar for digital learning. High school students report that they are using mobile devices in the classroom to both make their existing schoolwork processes more effective and to transform the way they approach learning. Examples of both include the following:

**Making schoolwork more effective**

› Checking class grades (72%)
› Looking up information (65%)
› Using a calculator (61%)
› Communicating with classmates and teachers (46%)
› Taking notes in class (44%)

**Transforming learning process**

› Taking photos of class assignments (40%)
› Reading books and articles on a mobile device (40%)
› Taking online tests (39%)
› Using social media to work on projects with classmates (37%)
› Receiving timely reminders and alerts about deadlines and tests (36%)

While the efficiency factors appear to outpace the transformational aspect of using mobile devices, this may be a temporary situation as both students and teachers learn how to best leverage these always-on, always-available devices within learning. While some educators may still be debating the place for mobile devices within the classroom, students already have a clear point of view on how technology could improve their learning environment. When asked how their school could make technology easier to use to support their schoolwork, students in grades 6 – 12 identified the following as key changes that they would recommend to their school principal.

1. Let us use our own mobile devices within instruction (53%)
2. Let us access social media tools to support our schoolwork (37%)
3. Provide us with tools and mobile apps to facilitate greater communications (34%)
4. Provide us with tools and mobile apps to help us collaborate with classmates (32%)
5. Provide us with 24/7 access to our teachers (28%)

In short, the students are looking for a classroom environment that more closely replicates the way they are using these digital tools outside of school—an environment that leverages technology to support greater communications and collaboration.

**Students’ evaluation of school.** Beyond the technology experiences and expertise that the digital learners are gaining, the online learning environment also appears to be influencing students’ perceptions about school and their interest in learning. While 43% of high school students in virtual schools say they are interested in what they are learning, only 32% of all high schoolers in the United States express the same sentiment. A similar
disconnect exists when students are asked about their motivation to do well in school. More than one-third (35%) of the virtual school students say they are motivated to do well in school because they like school. Only a quarter (26%) of students in grades 9 – 12 link liking school to being motivated to achieve.

Online learning also seems to enable students to develop stronger school relationships. Research has long documented that students who experience a connection with their school and have adults within that school who care about them are more likely to do better in school and less likely to drop out or engage in risky behavior. It is especially noteworthy then that while only 24% of high school students nationwide say their school cares about them as a person, 36% of students who have had some type of school-based online learning experience believe that their school cares about them. Additionally, as an indicator of students’ desires for more personalized learning, a majority of high school students nationwide (51%) wish that their classes were more interesting to them. While still allowing room for improvement, only a third of virtual school students (34%) share that same wish indicating possibly a higher level of satisfaction amongst virtual school students.

This year’s Speak Up data findings support the idea that students in online learning environments not only enjoy a different type of learning experience, but that these experiences are resulting directly in increased skill development with technology tools and the development of a stronger value proposition around school and learning. The students themselves articulate the benefits of digital learning in terms of the change in the learning process as well as how it affects their self-efficacy as learners.

**Students, parents, and teachers articulate the benefits of digital learning**

With the increased national attention on the potential of technology in combination with enhanced school access to virtual, blended, flipped, and mobile learning environments, it is not surprising to see a steady increase in student interest in digital learning. For example, amongst students who have not taken an online class, 35% of high school students and 41% of middle school students express an interest now in learning online. In many ways, this augmented interest on the part of students may be fueled by their parents’ personal experiences with online learning. With our most recent Speak Up data, we learned that 46 parents of school-aged children have taken an online class for professional training or development. Within that context, therefore, it is valuable to understand both the student and parent perspective on the value of digital learning for students.

**Students’ views on the benefits of digital learning.** The use of the Speak Up data to understand students’ views is especially meaningful as Speak Up captures the authentic views of students’ lived experiences as an online learner. As an interesting case point, the voices of students who are currently in fully virtual schools or have taken online classes in a self-study format, within a teacher-led or blended program, or on their own, provide valuable insights into the value of digital learning.

Besides the logistical benefits that are often associated with online learning such as improved scheduling, access to classes not offered at school, or the opportunity to gain college credit, students also express the value of online learning across two vectors: how online learning specifically changes the learning process, and how online learning improves their self-efficacy as a learner. Both of these significant benefit statements are important outcomes for any consideration of digital learning. The benefit statements were especially strong amongst middle school students who have experienced some form
of online learning. Interestingly, we see the impact of this learning modality evident in the benefit statements espoused by the students with only small differentiations by type of online learning experience. Table 3 illustrates the benefits of a changed learning process, and Table 4 does the same for the learner self-efficacy valuation.

As described in other Speak Up reports, today’s students are highly motivated by opportunities to self-direct learning, both during school time as well as in out-of-school time. These middle school students, who have benefited from an online learning experience, expand upon that idea with strong valuations on being in control of their learning.

**TABLE 3:**
**ONLINE LEARNING CHANGES THE LEARNING PARADIGM:**
**VIEWS OF MIDDLE SCHOOL STUDENTS WITH ONLINE LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>BENEFITS OF ONLINE LEARNING</th>
<th>IN A VIRTUAL SCHOOL</th>
<th>TAKEN A SELF-STUDY CLASS</th>
<th>TAKEN A TEACHER-LED CLASS</th>
<th>TAKEN A ONLINE CLASS ON THEIR OWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain extra help in a subject that is hard for me</td>
<td>46%</td>
<td>52%</td>
<td>49%</td>
<td>52%</td>
</tr>
<tr>
<td>Greater comfort asking teacher questions</td>
<td>45%</td>
<td>47%</td>
<td>44%</td>
<td>46%</td>
</tr>
<tr>
<td>Ability to review class materials as many times as I need</td>
<td>40%</td>
<td>46%</td>
<td>46%</td>
<td>49%</td>
</tr>
<tr>
<td>Easier for me to share ideas with classmates</td>
<td>37%</td>
<td>40%</td>
<td>40%</td>
<td>42%</td>
</tr>
<tr>
<td>Get more attention from the teacher</td>
<td>35%</td>
<td>35%</td>
<td>33%</td>
<td>36%</td>
</tr>
</tbody>
</table>

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**TABLE 4:**
**ONLINE LEARNING SUPPORTS LEARNER SELF-EFFICACY:**
**VIEWS OF MIDDLE SCHOOL STUDENTS WITH ONLINE LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>BENEFITS OF ONLINE LEARNING</th>
<th>IN A VIRTUAL SCHOOL</th>
<th>TAKEN A SELF-STUDY CLASS</th>
<th>TAKEN A TEACHER-LED CLASS</th>
<th>TAKEN A ONLINE CLASS ON THEIR OWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puts me in control of my learning</td>
<td>53%</td>
<td>57%</td>
<td>55%</td>
<td>57%</td>
</tr>
<tr>
<td>I’m more motivated to learn</td>
<td>46%</td>
<td>49%</td>
<td>46%</td>
<td>49%</td>
</tr>
<tr>
<td>Easier for me to succeed</td>
<td>46%</td>
<td>49%</td>
<td>47%</td>
<td>50%</td>
</tr>
<tr>
<td>I’m able to work at my own pace</td>
<td>43%</td>
<td>51%</td>
<td>51%</td>
<td>53%</td>
</tr>
<tr>
<td>Gives me a greater sense of independence</td>
<td>41%</td>
<td>45%</td>
<td>46%</td>
<td>46%</td>
</tr>
</tbody>
</table>

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of their own learning with a 56% average endorsement of that benefit statement. These statements bode well for the further development of these students as life-long, life-wide, and life-deep learner. The important self-efficacy benefits are intrinsically tied, however, to the changes in the learning process afforded by online learning. Opportunities to have a stronger relationship with their teacher, to self-remediate as needed, and to build collaborative learning practices with peers are all part of a changed learning environment for these students that also adds up to more personalized learning experiences.

Parents’ views on the benefits of digital learning.

Parents’ thoughts on the value of digital learning closely mirror those of students. This is especially true amongst parents who have taken an online class to learn a new skill, for work training, or to enhance professional development. Almost two-thirds of these parents (63%) recognized the importance of students learning at his/her own pace as a key benefit, and a similar number of parents (60%) placed a premium on the ability of a student to review instructional materials as often as needed within an online class. Both of these benefits most likely reflect what the parent successfully experienced as an online learner. It should not be surprising, therefore, that parents who have a personal experience with online learning (88%) also consider the effective use of technology as more important to their child’s future than other parents who have not used technology to support their own learning (77%).
**Teachers’ views on the benefits of digital learning.**

Traditionally, measures on the impact of technology use have focused on the relationship between the engaging elements of the digital tools and students’ potentially increased interest in class content. While student interest and engagement remain valid correlates of achievement, policy and education leaders are increasingly looking for the impact in terms of students’ college- and career-readiness skill development. To that goal, understanding the perspective of teachers in very specific digitally rich learning environments can provide new insights into not only the impact of technology use on student success, but how to think differently about evaluating impact. Table 5 illustrates how teachers in three environments—online classes, classes that use digital content regularly, and one-to-one mobile classrooms—assess the impact of technology on students’ workplace skills.

A causal relationship between experience and expectation is a common thread throughout the Speak Up research. Students, parents, and educators who have had meaningful, quality experiences with digital tools are most likely to not only want more of those experiences for themselves, but also to envision online, blended, and mobile learning as key components within their vision of the ultimate 21st century school.

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**TABLE 5:**

**HOW HAS USE OF TECHNOLOGY IN YOUR CLASSROOM ENHANCED STUDENT SKILLS AND SUCCESS?**

<table>
<thead>
<tr>
<th>TEACHERS VIEWS: PERCEIVED BENEFITS OF TECHNOLOGY USE FOR STUDENTS</th>
<th>TEACHING IN AN ONLINE CLASS</th>
<th>TEACHING USING DIGITAL CONTENT</th>
<th>TEACHING IN A 1:1 MOBILE CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing creativity</td>
<td>50%</td>
<td>44%</td>
<td>49%</td>
</tr>
<tr>
<td>Developing problem-solving and critical-thinking skills</td>
<td>57%</td>
<td>44%</td>
<td>45%</td>
</tr>
<tr>
<td>Taking ownership of their learning</td>
<td>57%</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Learning to work collaboratively</td>
<td>30%</td>
<td>34%</td>
<td>37%</td>
</tr>
<tr>
<td>Understanding how to apply academic concepts to real-world problems</td>
<td>58%</td>
<td>37%</td>
<td>42%</td>
</tr>
<tr>
<td>Increased motivation to learn</td>
<td>50%</td>
<td>60%</td>
<td>55%</td>
</tr>
</tbody>
</table>

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Envisioning the ultimate school for all learners—
the role of digital learning

Students who have taken one or more online classes in any one of the three formats studied—a self-study class, a teacher-led blended class, or an independent self-directed class—continue to be highly interested in taking more online classes. Amongst all middle school students, math is the course that students are most interested in taking in an online or blended format (42%). As illustrated in Table 6, online-learning students outpace their traditional-learning peers in their interest in taking more online classes in specific subjects. Interestingly, the type of online learning experience, whether teacher led or student led, does not seem to influence the students’ aspirations for more online learning. This may indicate that the online learning experience is less about the format of the class and more about how the overall concept of digital learning embodies students’ desires for more socially based, untethered, digitally rich, and contextually relevant learning.

The fact that students who have had online learning experiences see computer science and career technical education as applicable to an online learning environment is particularly significant. Given the strong national desire on the part of business and industry for greater middle school and high school emphasis in these areas, school leaders may want to examine how to leverage digital learning opportunities to provide students with these types of courses.

Are we all on the same page regarding the role of digital tools within innovative classroom models?

Students’ interests and aspirations for incorporating more digital learning tools into instruction, even within a traditional face-to-face school environment, is important for administrators to understand. Again, the views of our students who have had that kind of “front row” digital learning experience, both in and out of school, can provide valuable insights with their perceptions on the essential technology for the ultimate 21st century school. As Chart 3 demonstrates, there continues to be a

![Table 6: What Class Would You Like to Take Online?](image-url)

<table>
<thead>
<tr>
<th>MIDDLE SCHOOL STUDENT TYPE</th>
<th>MATH</th>
<th>SCIENCE</th>
<th>COMPUTER SCIENCE</th>
<th>CAREER TECHNICAL ED.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taken a self-study online class</td>
<td>55%</td>
<td>48%</td>
<td>42%</td>
<td>35%</td>
</tr>
<tr>
<td>Taken a teacher-led online class</td>
<td>50%</td>
<td>45%</td>
<td>41%</td>
<td>34%</td>
</tr>
<tr>
<td>Taken an online class on my own</td>
<td>53%</td>
<td>46%</td>
<td>42%</td>
<td>35%</td>
</tr>
</tbody>
</table>

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disconnect in terms of perceptions on the value of various
digital tools within instruction between students, parents,
teachers, and administrators. In some areas, such as
around the use of digital content and school-wide Internet
access, school principal interest trumps the interests of
teachers, parents, and even students. However, in regards
to the use of social media within learning environments,
online classes and one-to-one laptop programs, students’
desires outpace those of their parents and educators. Each
of these digital tools holds the potential to transform the
classroom learning experience and to create opportunities
for students to develop the types of 21st century skills
that will be needed for their future success. It is essential,
therefore, that as school and district leaders think about
implementing new, innovative classroom models, they
take into account the experiential view of students who
are already tapping into these tools to self-direct and
extend learning outside of traditional school hours.

CHART 3:
ENVISIONING THE ULTIMATE SCHOOL:
ARE WE ON THE SAME PAGE WITH OUR STUDENTS?

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Ending thoughts:
Next steps for K-12 education leaders
Project Tomorrow, in collaboration with Blackboard,
provides these annual trends updates to stimulate
innovative discussions around how to more effectively
enable, engage, and empower new digital learning
environments. In this year’s update, we shared the latest
Speak Up data with a particular focus on the views of
students who have experienced online, blended, and
mobile learning to inform you on the plans and policies of
schools and districts interested in enhancing or expanding
digital learning opportunities for students.

Tapping into the experienced views of these students
and understanding the aspirations of all learners for
more socially based, untethered, and digitally rich
learning environments does not need to end with your
consideration of these findings. We encourage all readers
to ponder the ideas and topics examined in this report
and to think about the next steps that are necessary to
effectively transform K-12 education using online tools and
resources. Listening to the lived experiences of today’s
students may be a good place to start.
About the Speak Up National Research Project and Speak Up 2013

In fall 2013, Project Tomorrow surveyed 325,279 K-12 students, 32,151 parents, 37,756 teachers, 2,230 librarians, 933 district administrators, 3,020 school administrators, 577 technology leaders, and 1,346 members of the community representing 9,005 public and private schools from 2,710 districts. Schools from urban (28%), suburban (32%), and rural (40%) communities are represented. Just under one-half of the schools (46%) that participated in Speak Up 2013 are Title I eligible schools (an indicator of student population poverty). The Speak Up 2013 surveys were available online for input between October 2 and December 20, 2013.

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), the use of technology within specific curricular areas, and STEM career exploration. In addition, educators shared the challenges they encounter integrating technology into classroom instruction, and how budget challenges have affected these decisions. The data is collected from 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 status, 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/). Speak Up data is cross-consulted with NCES statistics to ensure that data represent nation-wide school demographics. The data are analyzed using standard cross-tab analysis.

About Project Tomorrow

Project Tomorrow® is the nation’s leading education nonprofit organization dedicated to the empowerment of student voices in education. With 18 years of 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.

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 2003, more than 3.4 million K-12 students, parents, teachers, librarians, principals, technology leaders, and district administrators have shared their views and ideas through Speak Up.

About Blackboard

Blackboard 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 website, online learning, mobile, and mass communication 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. Learn more at www.blackboard.com/k12.