Teacher Technology Usage

Prepared by: VeraQuest, Inc.
Prepared for: PBS
Date of Survey: January 15 - 20, 2013
Objectives

On behalf of PBS LearningMedia, VeraQuest conducted a survey among teachers to better understand:

- The amount and type of technology platforms in America’s classrooms, including identification of emerging trends, such as increased tablet usage;
- How frequently and for what purposes teachers are using this technology in their classrooms;
- Teachers’ attitudes toward technology in their classrooms; and
- Training needs.
Executive Summary

There are many benefits cited by teachers when it comes to the use of educational technology in the classroom, with the most prevalent among them being the ability to:

- Reinforce and expand on content (74%)
- Motivate students to learn (74%)
- Respond to a variety learning styles (73%)

For the most part there is very little that teachers see as negative about educational technology: almost seven-in-ten (69%) of teachers say educational technology allows them to “do much more than ever before” and 62% say that “technology is a new and exciting way of communicating with and motivating students.” Only 6% say it requires too much planning and 7% describe it as a crutch.

The following technology applications are the most often used by teachers: online lesson plans (48%), web-based interactive games (45%), and as a delivery vehicle for information to parents/students (44%).
Executive Summary (Continued)

A year-over-year comparison of educational technology in the classroom shows that the availability of tablets and handheld devices have grown substantially in the past year. Access to tablets in the classroom are up to 35% from 20% and handheld devices, up to 36% from 26%.

Among teachers who use tablets, 71% cite the use of educational applications as the most beneficial for teaching, followed by educational websites (64%) and educational e-books/textbooks (60%).

Overall, more than two-thirds (68%) of teachers expressed a desire for more classroom technology and this number is even greater in low-income schools (75%).

About four-in-ten teachers indicate they asked or are likely to ask for educational technology this year.

Half of all respondents say they were “comfortable experimenting with new technology”.
Among teachers who currently don’t have access to these technologies, Interactive White Boards and Pads/tablets would be the most sought types of technology by (34% and 33% respectively) if grant money were available to them, followed by PCs/laptops (28%).

For the most part, teachers view educational technology as a teaching tool, but devices like PCs/laptops, tablets and game devices are also viewed as self-learning tools for students.
Study Methodology

Sample

Respondents were recruited from the uSamp panel (www.usamp.com). This panel has over 2 million members in the U.S. who have been recruited through a number of different panel enrollment campaigns. Panelists are required to double opt-in to ensure voluntary participation in the surveys they are invited to complete. Respondents receive points for the surveys they complete that can be accumulated and redeemed for a variety of products.

Respondents were randomly selected from a uSamp panel of pre-K thru grade 12 teachers to be generally proportional of the demographic strata of total U.S. Teachers. Once selected, respondents were sent an invitation to a protected web-based survey which ensured that only the intended recipient could complete the survey, and that the survey could only be completed once. There were 503 respondents from the U.S. who reported being teachers who completed the survey.

In some instances, percentages may not add to 100% due to rounding.
What grade(s) do you teach?
Which of the following best characterizes your school? If you are unsure please make your best guess.
How would you describe the financial backgrounds of the majority of families whose children you teach?

(n = 503)
Key Findings
Top-rated educational technology benefits include the ability to reinforce and expand on content (74%), to motivate students to learn (74%) and to respond to a variety learning styles (73%).

Benefits Realized Due to Use of Technology
- among teachers who have access to some type of technology -

Able to reinforce and expand on content being taught: 74%
Able to increase student motivation to learn: 74%
Able to respond to a variety of learning styles: 73%
Able to demonstrate something I can't show any other way: 65%
Able to make students more technology-literate: 64%
Able to provide additional practice to struggling learners/students: 59%
Able to change the pace of classroom work: 55%
Able to teach current events and breaking news: 43%
None of these: 4%

Which of the following benefits have you seen with your students in your classroom due to the use of educational technology?
Technology is largely viewed as a positive – with few perceived negatives. Almost seven-in-ten teachers say technology allows them “to do much more than ever before.”

### Attitudes Towards Use of Technology in the Classroom

- **The technology today allows teachers to do much more than ever before**: 69%
- **Technology is a new and exciting way of communicating with and motivating students**: 62%
- **Kids today are digital natives; we need our classrooms to embrace a 21st century curriculum**: 61%
- **Technology is a motivating and useful tool, but should not be overly relied upon**: 54%
- **Technology is a teaching aid that would be hard to live without**: 53%
- **Technology has a noticeable impact on student learning**: 53%
- **Students are able to harness the power of the technology that kids are already surrounded by and using it for educational progress**: 52%
- **Technology creates an environment of greater student collaboration**: 43%
- **I used to be skeptical about digital media benefits, but am now a strong supporter**: 16%
- **Technology is becoming more of a crutch than it ought to be**: 14%
- **Technology is more of a distraction than an teaching asset**: 7%
- **Technology requires too much planning/maintenance**: 6%
- **None of these**: 2%

Which of the following statements describe how you feel about the use of educational technology in the classroom today?
More than two-thirds of teachers (68%) express a desire for more classroom technology. That figures rises to 75% among teachers from low income schools.

Opinion on Current Level of Technology in Classroom
- among total teachers -

- 68% wish for more technology
- 75% in low income schools
- 2% wish for less technology
- 5% of students want more technology
- 25% agree level is fine

Please choose the statement that most applies:
The following applications are most often used by teachers: online lesson plans, web-based games, the delivery of information to parents/students, and online images, articles and video content.

Technology Resources Currently Use to Supplement/Support Teaching Efforts
- among total teachers -

- Online lesson plans: 48%
- Web-based interactive games or activities: 45%
- Website to deliver/manage class information to parents/students: 44%
- Online articles tied to instruction: 43%
- Online images: 43%
- Online video content: 43%
- Online professional development: 36%
- Google Maps/Google Earth: 26%
- Online community or discussion forums for teachers: 23%
- Cloud Storage: 22%
- Social Media: 16%
- Mobile apps: 13%
- Blogs: 11%
- None of these: 10%
- Podcasts: 9%

Q423 Which of the following resources do you currently use to supplement or support your teaching efforts?
Tablets/e-readers saw the greatest increase in classroom penetration in the past year.

Technologies Teachers Have Access to in the Classroom
- among total teachers -

- Personal computers or laptops: 91% in Jan 2013, 90% in Dec 2011
- Television/DVR: 83% in Jan 2013, 80% in Dec 2011
- Projectors: 80% in Jan 2013, 80% in Dec 2011
- Interactive white board: 59% in Jan 2013, 59% in Dec 2011
- Handhelds (including cell phones, smart phones, iTouch...): 59% in Jan 2013, 36% in Dec 2011
- Tablets/electronic readers (iPad, Kindle, etc.): 26% in Jan 2013, 20% in Dec 2011
- Interactive table (Smart table): 11% in Jan 2013, 11% in Dec 2011
- Game devices (Nintendo DS, Kinect, Wii, etc.): 8% in Jan 2013, 10% in Dec 2011

Which of the following technologies do you have access to in your classroom?
Among teachers who use tablets, 71% cite the use of educational applications as the most beneficial for teaching, followed by educational websites (64%) and educational e-books/textbooks (60%).

**Most Beneficial Uses of Tablets/e-Readers**
- among teachers who have access to tablets -

- Educational apps: 71%
- Educational websites: 64%
- E-books/textbooks: 60%
- At-desk individual research and activities: 50%
- Group exercises and assignments: 48%
- Motivating reinforcer: 44%
- Modifications/accommodations for students with IEPs: 38%
- Cloud storage access (Google Docs, Dropbox, etc.): 29%
- Support for motor-impaired or language-impaired students: 28%
- Photos/videos: 27%
- Other: 1%

Which of the following tablet/e-reader uses do you feel are most beneficial to your teaching?
Additional Findings
About four-in-ten teachers indicate they asked or are likely to ask for educational technology this year. Half of all respondents say they were “comfortable experimenting with new technology.”

Have you asked (or would you like to ask) for more access to technology resources for your classroom? Has new technology becomes available for the classroom, which of the following describes how you feel?

**Feelings Towards New Technology**

- among total teachers -

- We need to use all the tools available to us – embracing a 21st-century curriculum that will prepare kids for the… 58%
- I feel comfortable experimenting with new technology as it becomes available 50%
- I like new technology, but I wish had more direction on how to use it 38%
- I like the idea of using new technology, but often the kids know more than I do 33%
- Technology helps me collaborate as a professional with other teachers 32%
- I wish we had a special department whose sole job is to help support us on technology 29%
- Technology increases the needed skill of collaboration among students 26%
- Traditionally we avoided screen time in the classroom, but today the use of the right educational technology… 25%
- I am just getting used to using older technology and it can be overwhelming to keep up with new developments 13%
- It would require too much planning/maintenance 4%
- None of these 5%
Interactive White Boards and Pads/Tablets would be the most sought technology by teachers (34% and 33% respectively), if grant money were available to them.

If you received a grant that you could be put towards any one technology you wanted in the classroom, what would it be? *For the purpose of this question, please assume you do not currently have any of these technologies.*
PCs, white boards, tablets and projectors are deemed as having the greatest potential for enhancing education.

### Potential to Enhance Education
- among those with access to specific technology -

- Interactive white board (n=298) - 81%
- Personal computers or laptops (n=451) - 80%
- Tablets/electronic readers (iPad, Kindle, etc.) (n=177) - 73%
- Projectors (n=402) - 71%
- Interactive table (Smart table) (n=55) - 64%
- Handhelds (including cell phones, smartphones, iTouch devices) (n=181) - 45%
- Game devices (Nintendo DS, Kinect, Wii, etc.) (n=50) - 40%
- Television/DVR (n=403) - 37%

Please rate each of the following technologies on their potential to enhance education (whether these devices are currently used in your classroom or not)?
PCs have a relatively good device-to-student ratio: 36% of teachers have one PC for at least every five students. Tablets, have a one-to-five ratio in 34% of classrooms. Handheld devices have the highest “teacher only” concentration at 54%.

### Availability of Devices by Technology
- among those with access to specific technology -

<table>
<thead>
<tr>
<th>Technology</th>
<th>Personal computers or laptops</th>
<th>Handhelds (including cell phones, smartphones, iTouch devices)</th>
<th>Tablets/electronic readers (iPad, Kindle, etc.)</th>
<th>Game devices (Nintendo DS, Kinect, Wii, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>(n=451)</td>
<td>(n=181)</td>
<td>(n=177)</td>
<td>(n=50)</td>
</tr>
<tr>
<td>1 unit/device for every student in classroom</td>
<td>18%</td>
<td>14%</td>
<td>19%</td>
<td>10%</td>
</tr>
<tr>
<td>1 unit/device for every 2-5 students</td>
<td>18%</td>
<td>12%</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>1 unit/device for every 6-10 students</td>
<td>13%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>1 unit/device for every 11-15 students</td>
<td>5%</td>
<td>3%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>1 unit/device for teacher and 1 unit/device shared amongst all students</td>
<td>11%</td>
<td>4%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>1 unit/device shared by teacher and all students</td>
<td>8%</td>
<td>6%</td>
<td>16%</td>
<td>32%</td>
</tr>
<tr>
<td>1 unit/device for teacher’s use only</td>
<td>27%</td>
<td>54%</td>
<td>33%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Generally speaking, teachers classify the myriad of technology in their classroom as primarily teaching tools used by teachers. PCs, tablets and game devices are also perceived as self-learning tools for students.

## Usage by Technology
- among those with access to specific technology -

<table>
<thead>
<tr>
<th>Technology</th>
<th>BASE</th>
<th>Administrative tool used by teacher</th>
<th>Teaching tool used by teacher</th>
<th>Self-learning tool used by students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive white board (e.g., SMART Board)</td>
<td>(n=298)</td>
<td>23%</td>
<td>91%</td>
<td>40%</td>
</tr>
<tr>
<td>Interactive table (e.g., SMART Table)</td>
<td>(n=55)</td>
<td>33%</td>
<td>80%</td>
<td>35%</td>
</tr>
<tr>
<td>Personal computers or laptops</td>
<td>(n=451)</td>
<td>50%</td>
<td>73%</td>
<td>62%</td>
</tr>
<tr>
<td>Tablets/electronic readers (iPad, Kindle, etc.)</td>
<td>(n=177)</td>
<td>39%</td>
<td>66%</td>
<td>58%</td>
</tr>
<tr>
<td>Handhelds (including smart phones, iTouch devices)</td>
<td>(n=181)</td>
<td>44%</td>
<td>50%</td>
<td>39%</td>
</tr>
<tr>
<td>Game devices (e.g., Nintendo DS, Kinect, Wii, etc.)</td>
<td>(n=50)</td>
<td>20%</td>
<td>54%</td>
<td>54%</td>
</tr>
<tr>
<td>Projector (to display/show media from websites/browser)</td>
<td>(n=402)</td>
<td>24%</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Television/DVR</td>
<td>(n=403)</td>
<td>22%</td>
<td>85%</td>
<td>10%</td>
</tr>
</tbody>
</table>
PCs (91%), interactive white boards (85%), and projectors (81%) are used at least once a week by most teachers, with two-thirds using PCs and just over half using interactive white boards on a daily basis.

### Frequency of Technology Use
- among those with access to specific technology -

<table>
<thead>
<tr>
<th>Technology</th>
<th>BASE</th>
<th>Every Day</th>
<th>At least once a Week (net)</th>
<th>1-3 Times a Month</th>
<th>Less than Once a Month/Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive white board (e.g., SMART Board)</td>
<td>(n=298)</td>
<td>54%</td>
<td>85%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Interactive table (e.g., SMART Table)</td>
<td>(n=55)</td>
<td>24%</td>
<td>69%</td>
<td>20%</td>
<td>11%</td>
</tr>
<tr>
<td>Personal computers or laptops</td>
<td>(n=451)</td>
<td>66%</td>
<td>91%</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Tablets/electronic readers (iPad, Kindle, etc.)</td>
<td>(n=177)</td>
<td>29%</td>
<td>68%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Handhelds (including smartphones, iTouch devices)</td>
<td>(n=181)</td>
<td>35%</td>
<td>68%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Game devices (e.g., Nintendo DS, Kinect, Wii, etc.)</td>
<td>(n=50)</td>
<td>16%</td>
<td>48%</td>
<td>22%</td>
<td>30%</td>
</tr>
<tr>
<td>Projector (to display/show media from websites/browser, etc.)</td>
<td>(n=402)</td>
<td>44%</td>
<td>81%</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Television/DVR</td>
<td>(n=403)</td>
<td>14%</td>
<td>43%</td>
<td>33%</td>
<td>23%</td>
</tr>
</tbody>
</table>

How often would you say you use each of the following technologies?
The vast majority of teachers with access to technology are using it as much as or more than a year ago.

### Use of Technology Compared to Last Year
- among those with access to specific technology -

<table>
<thead>
<tr>
<th>Technology</th>
<th>More frequently</th>
<th>Same Frequency</th>
<th>Less Frequently</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive white board (e.g., SMART Board)</td>
<td>(n=298)</td>
<td>44%</td>
<td>50%</td>
<td>5%</td>
</tr>
<tr>
<td>Interactive table (e.g., SMART Table)</td>
<td>(n=55)</td>
<td>31%</td>
<td>56%</td>
<td>9%</td>
</tr>
<tr>
<td>Personal computers or laptops</td>
<td>(n=451)</td>
<td>30%</td>
<td>67%</td>
<td>2%</td>
</tr>
<tr>
<td>Tablets/electronic readers (iPad, Kindle, etc.)</td>
<td>(n=177)</td>
<td>60%</td>
<td>33%</td>
<td>4%</td>
</tr>
<tr>
<td>Handhelds (including cell phones, smart phones, iTouch devices)</td>
<td>(n=181)</td>
<td>39%</td>
<td>53%</td>
<td>4%</td>
</tr>
<tr>
<td>Game devices (e.g., Nintendo DS, Kinect, Wii, etc.)</td>
<td>(n=50)</td>
<td>18%</td>
<td>66%</td>
<td>12%</td>
</tr>
<tr>
<td>Projector (to display/show media from websites/browser, etc.)</td>
<td>(n=402)</td>
<td>25%</td>
<td>69%</td>
<td>5%</td>
</tr>
<tr>
<td>Television/DVR</td>
<td>(n=403)</td>
<td>11%</td>
<td>70%</td>
<td>19%</td>
</tr>
</tbody>
</table>