



## Ten Technology Strategies to Engage the Digital Generation

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### Introduction

Research (McCormick, 2012) shows that the more students are engaged in their work, the better they like school and the more they succeed. Studies show students become more disengaged from school as they progress from elementary to middle to high school (Steinberg & Almeida, Forthcoming). By high school as many as 40% to 60% of students become chronically disengaged from school - urban, suburban, and rural. This does not include students who have dropped out (Anneberg Institute for School Reform, 1994; Deci & Ryan, 1985; Skinner & Belmont, 1993). Student engagement at the classroom level has found it to be a positive predictor of desirable outcomes: graduation rates, grades, satisfaction with school regardless of socioeconomic status (Klem & Connell, 2003).

Today's students use digital media in ways that are very different than how we do. They want to use Web 2.0 tools and use new social and collaborative approaches in all aspects of their life including learning (Hart, 2008). This whitepaper provides ten technology strategies that fit how today's students prefer to learn and how technology can be used in instruction to improve student engagement.

### #1- Strategies to Spice Up Your Lessons with Media

Today's learners are highly visual learners, preferring to process pictures, sounds, and video rather than text (Hart, 2008). Combining both audio and visual learning tools in the classroom has proven to increase student engagement because it adds variety to the learning environment (Lanley, 2011).

There are a number of tools that make it easy for you to add video to your lessons. Examples include [Screener](#), [Xtranormal](#), and [Voki](#) are Web 2.0 tools that make it easy to create and embed a video into a lesson.

iTunes also has tons of free content available for education that can be used to spice up a lesson.

Today's learner have short attention spans, so prefer bite-sized chunks of content. They have short attention spans, so prefer bite-sized chunks of content which includes videos and podcasts (Hart, 2008).

### #2 -Strategies to Increase Authenticity and Relevancy in the Classroom

The web makes it easier for students to have authentic audiences to share their work. The audience can be their peers or even a worldwide audience.

Blogging is a great way to provide an authentic audience for students. In her blog post, Ten Steps to better student engagement, Tristan de Frondeville (2009) suggest that you have student encourage and focus their writing with a prompt, such as "The Muddiest Point and the Clearest Point: What was most confusing about the work you did today, and what new thing was the most clear?" Use this approach to guide future lessons and activities. Consider writing responses to student journal entries in order to carry on a conversation with students about their work.

Another great way to provide students with relevant real world projects is by having them collect and share real world data sets. [The Bucket Buddies Project](#) or [Journey North](#) are great examples of this.

### #3- Strategies to Create Active Learning Environments

**"Knowing is literally something which we do."**-- John Dewey

Shana Oliver (2011), the school's academic facilitator, of Cochrane Collegiate Academy, in Charlotte, North Carolina feels that there should be limited lecture time in a class period. After 12-15 minutes of lecturing, you should engage your students in some type of activity, even if it's for only a few minutes.

In her experience, students can maintain their attention span only for the number of minutes equal to their age plus two or three, so the lecture must be chunked. When that amount of time has elapsed, teachers must stop and have students do something different. Once students have completed a two- or three-minute activity, the teacher can go back to lecturing for another chunk of time.

For example a student can talk to their neighbor, draw a picture, write a few sentences that summarize or describe the lecture, finish an example problem, or get in a discussion with their group.

[ePals](#) allows schools to connect on international projects through Safely connect, collaborate and learn using our leading protected email and blog solutions for schools and districts.

[The Buck Institute](#) has great resources for project based learning.

### #4- Strategies to Allow Students to Interact with Experts Beyond the Walls of the Classroom

Will Richardson (2008) states that networking is a new type of literacy that all students will need to succeed in a global economy. "In the Web 2.0 world, self-directed learners must be adept at building and sustaining networks".

Richardson suggests that younger students need to see their teachers engaging experts in synchronous or asynchronous online conversations about content, and they need to begin to practice intelligently and appropriately sharing work with global audiences. Middle school students should be engaged in the process of cooperating and collaborating with others outside the classroom around their shared passions, just as they have seen their teachers do. And older students should be engaging in the hard work of what Shirky (2008) calls "collective action," sharing responsibility and outcomes in doing real work for real purposes for real audiences online.

The Internet can provide Virtual Learning Communities providing an environment for people to connect with and learn from others through collaboratively participating in the construction of new knowledge.

Another must have tool for connecting with experts for the Internet is [Skype](#). Skype will let you text chat or video or voice conference with others for free over the Internet.

### **#5- Strategies to Increase Collaboration and Interaction Between Students**

Today's students are very social, and love to share with others. They enjoy working in teams. Interaction with others is key to their learning, and they want to be part of a community, collaborating, sharing, and exchanging ideas (Hart, 2008).

Tools such as Moodle, Google apps, online graphic organizers, and wikis allow for rich online collaboration spaces where student-to-student communication and co-construction of knowledge can occur. Instant messaging can allow allows teachers and students to communicate about a collaborative task, share ideas, share links, and in general work together on projects. Live chats can be recorded and saved for future reference ("12 moodle tools to interact with your students online," 2012).

Having students hear different perspectives from their peers is also been shown to be an effective learning strategy (Lanley, 2011).

### **#6- Strategies to Give Everyone a Voice**

The opportunity to respond is positively related to academic achievement. That is, the more opportunities students have to respond to a particular content or practice a skill, the better their understanding of the material or skill (Frondeville, 2009).

Tools such as online discussion boards provides the ability to contribute to discussions after class, or from home, provides a much broader opportunity for participation that the traditional class discussion. Students with different contribution styles, or who process information over time now have additional ways to participate.

In a classroom conversation, there's generally one strand of conversation going at any one time, and if you're bored by that particular strand, you're completely disengaged.

Back channel tools such as [Today's Meet](#) and micro-blogging sites such as [Twiducate](#) allow multiple conversations to take place at once.

### **#7- Strategies to Utilize Real Time Formative Assessments**

[Wall Wisher](#) and [Online Stickies](#) are the equivalent of post-it notes for the Internet. They are ideal for quick formative assessments.

According to Oliver (2011) "teachers must find creative ways to have the students answer the essential question at the end of the lesson. A student's ability to answer the essential question at this point is a way for the teacher to assess the student's learning. In most instances, this is the point when a teacher can determine whether she needs to go back and reteach or needs to accelerate student learning".

Google forms and Moodle quizzes can be used as formative assessments. Teachers can even set-up their Moodle quizzes to include feedback to appear based on student answer choices.

### #8- Strategies to Empower Students by Accessing their Own Data

Today's learners are used to getting immediate feedback, responsiveness, and ideas from others, and crave instant gratification (Hart, 2008).

When students have access to their own data they can be empowered to take ownership of their own learning. Technology can make data accessible to students instantly.

For example, [Paper Rater](#) is a free application on the web that allows students copy and paste your papers, lab reports, etc. and receive feedback from vocabulary usage to punctuation.

### #9- Strategies to Give Students More Choices

Allowing students to choose from several teaching mediums, such as images, graphs, audio recordings, and interactive reading materials can increase student engagement and motivation.

An example of this is the [Kahn Academy](#). They provide over 2,700 videos covering everything from arithmetic to physics, finance, and history and 276 practice exercises. This allows students to learn what you want, when you want, at their own pace.

Another example is allowing students to choose how they will demonstrate proficiency. It could be a traditional paper, a Prezi, a Glogster etc.

### #10- Strategies for Creating a Culture of Explanation

Today's learners are experiential learners who learn by discovery rather than being "told." They like to interact with content to explore and draw their own conclusions (Hart, 2008). They also like playing different roles in their learning, either as a student, or even as instructor or facilitator or supporter of others, and switch between them (Hart, 2008). We need to create classrooms where students are the ones who have to defend and explain their ideas as opposed to regurgitate facts.

[VoiceThread](#) is a great tool for this. VoiceThread allows learners to speak and record what they have to say. For example, students can make math tutorials for one another explaining mathematical concepts and post them online.

The Moodle Glossary is another great tool for this. Students can create definitions in their own words. Whenever the word appears in the course, it creates an automatically generated link back to the glossary with the definition. Other students can comment and add to the glossary.

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