



Making it Happen Gazette

What do 21st Century Learners Need?

Submitted by Pearson Education

In a well-known 2001 article titled “Digital Natives, Digital Immigrants,” Marc Prensky coined the terms in the title to refer to students and their teachers, respectively. Digital Natives are today’s children, raised with video games, the language of the Web, instant messaging, and cell phones. Digital Immigrants were not raised in a culture of instant information and multitasking. For the students, there is something lacking in the traditional ways that teachers instruct. In Mr. Prensky’s words, “Today’s students are no longer the people our educational system was designed to teach.”

Understanding 21st Century Learners

According to The National Report on NetDay’s 2005 Speak-Up Event, computers are now standard in even the youngest student’s daily life. In surveys with over 500,000 K–12 students, NetDay found that over 70 percent of K–3 students use computers in their free time, almost 80 percent of 3–6 students use computers to play games, and 6–12 students use computers to create personal websites on MySpace, read the news, and blog.

Thirty percent of K–3 students have their own email accounts and almost half know what instant messaging (IM) is. By grade six, over thirty percent of students use email and IM on a weekly basis.

Other technologies in students’ lives include cell phones (their use is a given for older students but even 40 percent of K–3 use them), MP3 players, digital cameras, DVD/CD burners, video game players, and video cameras. And students use technology as much as they can for their schoolwork, researching information on the Internet, using technology to create presentations, emailing teachers, and instant messaging with peers about projects.

Teaching 21st Century Learners

Students need different skills for today’s workplace than they needed 30 or even 20 years ago. “Some students needed critical thinking and problem-solving skills a generation ago, but now all students need them,” says Ken Kay, President of the Partnership for 21st Century Skills. “A generation ago, a student would memorize the 50 state capitals in geography class. Now, 8th graders should be able to use GPS to solve a problem, such as analyzing the best location for a park in their town. The 20th century was about memorization. The 21st century is about using analytic skills to solve a problem.”

Today’s global economy also requires students to have Information Communication Technology

(ICT) skills. They need to be aware of community on a global, as well as a local and national, level. In the past 10 years, technology has brought the world into closer communication. “Global awareness is a huge part of 21st century learning,” says Kay. “Students need access to global information to develop a broader, multi-cultural perspective.”

Teamwork is also important in today’s workplace. Students should be able to communicate with others—in email, in meetings, and online. Tom Carroll, President of the National Association of Teaching and America’s Future made an analogy to the difference in television shows among generations. In the previous generation, the hero who saved the day in a TV drama acted alone. Today, television showcases collaborative teams who work together to solve crimes and end injustice.

Changing Curriculums

Twenty-first century learners are multitaskers. They are used to juggling games, cell phone calls, and IM, all at the same time. They have software literacy, are familiar with audio and video streaming, and accustomed to interactivity. Yet, in the classroom they still follow the model of opening a textbook and listening to the teacher at the front of the room. This can lead to students feeling unstimulated and bored.

Kathy Hurley, Senior Vice President of Strategic Partnerships at Pearson Education, says, “Going forward, curriculums should provide more flexibility and engagement which can be done with software tools, rich media, online collaborations, and virtual communities. These can result in a more open-ended, authentic type of learning than that which you get from a student opening a textbook.”

In addition to having more options, choices, and activities in their learning, students want materials they can customize. As Marjorie Scardino, Chief Executive of Pearson, noted in a 2005 speech to the Software Information Industry Association, “Nike will manufacture your running shoes in your own personal color scheme and Levi’s will make jeans that fit you—and only you. Dell’s PC’s come made to order, software and all. In music, personal playlists on your iPod or MP3 player take the place of albums put together by artists and promoters.”

Assessing 21st Century Students

“Assessment is critical,” Kay notes, “In this country, we teach students the same thing 100 times, then assess their ability to repeat it the 101st time. In the 21st century, the real skill lies in whether students can analyze something they have never seen before.

We need to be able to assess critical thinking and problem-solving skills, not just memorization.”

Kathy Hurley states, “Student assessment should be based on projects, meaning that it’s based on richer content from the student. Let’s move away from multiple choice and toward developing higher-level thinking skills in a real-world context.”

New digital tools will enable teachers to more easily make sense of the data they collect from formative assessment. Technology will allow teachers to make individualized assessments. With training, teachers can look at a student’s work and get a better sense of how to help that student right away.

Teachers, Parents, and Technology

Technology can also provide community, such as distance learning, for both teachers and students. Kay states, “Today, students and teachers can collaborate with each other. Fifty or sixty years ago, classrooms were isolated. Now technology allows them to share ideas.”

For example, students in areas where they don’t have a physics or chemistry teacher can take a course online. Using the Web, teachers can join virtual communities where educators mentor one another.

“I can’t stress enough how important professional development is for the teachers of 21st century learners. Professional development will allow them to improve their skills and connect with other teachers. Indeed, teachers are already using technology to create the kinds of communities they have long needed,” says Hurley.

The use of technology in the classroom will also allow parents to be more involved. As Ken Kay notes, “With technology, report cards, grades, and assessments can all be accessed by parents online. And with continual connectivity, parents and teachers can converse more easily.”

Kay continues, “Twenty-first century skills signal a more developed sense of learning and of what it means to be a citizen, both locally and globally. Now, the challenge will be for schools and educational content providers to lay the foundation for this type of learning.”



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