

High School on the Web

by Liz Pape

What you need to know about offering online courses.

The millennial generation has always had access to technology. Surrounded by computers and portable video games, students born between 1982 and 2000 spend more time surfing the Web, building websites, communicating through instant messaging, and writing blogs than they do watching television.

As school board members and administrators, the challenge is how to reach this generation. How can we provide them with the 21st century learning skills they need—not just in school, but throughout their lifetime?

In an age in which the amount of published information on the Internet doubles every 54 days, we cannot continue to focus on an educational system that primarily delivers information to students. Teachers no longer can be positioned as the resident gurus and sources for all learning.

Instead, we should focus on building students' literacy skills so they can ask questions, define inquiry, research multiple sources, authenticate sources of information, process and synthesize data and information, draw conclusions, and develop action plans based on their newfound knowledge. They must be able to filter the vast quantity of information they receive and determine what is authentic, useful, and of value. They need to work collaboratively in project-based activities, valuing each individual's contributions to the effort and building on the learning for all.

Online education, which harnesses the power of technology while capitalizing on the students' interest in it, is helping us transform our education system by delivering this valuable curriculum over the Internet. Through online courses and virtual schools that serve both students and teachers, we can shift our focus from the three R's to an education system that builds skills in the three C's: content, collaboration, and community.

A growing force

The power of online education lies in its ability to support today's students with many types of learning activities and assessments. It can be full courses taught entirely online, where students and teachers in different places communicate—student-to-teacher and student-to-student—over the Internet. It also can be a component of face-to-face classroom instruction, where teachers use the Internet to post assignments and resource materials and facilitate online student discussions.

Almost unheard of a decade ago, online courses and virtual schools have become increasingly prevalent in the K-12 sector as educators look for ways to provide the same learning tools to all students. According to Susan Patrick, director of the U.S. Department of Education's Office of Educational Technology, 40,000 to 50,000 students in 37 states are participating in online courses through approximately 2,400 publicly funded, Internet-based charter schools and state and district virtual schools.

Today, initiatives such as the Illinois, Kentucky, and Michigan Virtual High Schools are primarily funded by individual states and designed to meet the state's educational needs. Regional initiatives, like those in the Clovis Unified School District in New Mexico and the Jeffco Net Academy in Colorado, are examples of home-grown programs in which regions have pooled teaching resources to meet community needs.

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The Virtual High School, where I serve as president and chief executive officer, is a nonprofit collaborative of more than 250 high schools across the U.S. and abroad. Our school offers online courses taught by high school teachers for students in participating schools. Each VHS school contributes one or more teachers who—with the help of mentors and instructional technology experts—design and offer innovative courses over the Internet. Each school in the VHS cooperative can enroll 25 students in these online courses for each section of a teacher's time it contributes to the pool.

For students, online courses provide access to instruction that is not otherwise available to them. For teachers, participating in online education allows them to develop new perspectives for integrating technology into the curriculum, be it face-to-face or online.

Online education also allows individual schools and districts to expand their curricular offerings in advanced and specialty courses as well as technical, remedial, and credit-recovery courses. Innovative core academic classes also can be designed to meet a variety of learning styles and needs. In short, online education helps school administrators find the balance between the optimal learning environment offered by small high schools and the rich and varied course offerings, often found only in larger schools, needed to engage all students in learning.

Why consider online education?

Because virtual schools are still relatively new, evidence on whether online education is improving student achievement is just beginning to be collected. Anecdotally, students and teachers say they are excited about the opportunities this new form of education provides.

Little data exists, however, for school board members and administrators who are seeking measurable indicators of success. Without such data, it might seem difficult to justify your district's participation in online learning. But a number of other indicators can help you make that decision.

Some online education providers look at levels of engagement by students in online courses and levels of knowledge gained through online learning experiences. Course completion rate—the percentage of students who successfully complete an online course—also can be an indicator of whether online courses are designed and delivered appropriately.

One national indicator is the percentage of students who take online Advanced Placement courses and receive a passing score of 3 or higher on the national AP exams. Nationally, 60 percent of all students who take the AP exam achieve this score. Therefore, any online course provider meets the national average if it has a 60 percent passing rate for students taking the exam. In looking at three virtual providers, we find pass rates of 65 to 70 percent, suggesting that online courses can result in success.

The National Education Association's Guide to Online High School Courses discusses seven criteria you can use to evaluate whether online learning would work in your district. The criteria are curriculum, instructional design, teacher quality, student roles, assessment, management and support systems, and technological infrastructure.

The magnificent seven

Still have questions? Let's take a closer look at online learning, using the NEA's criteria and the experience we have had at the Virtual High School, to help you determine whether this is worth thinking about for your district.

1. Curriculum Online courses need to be designed in such a way that a philosophy of student-centered learning is evident throughout all course documents, activities, discussions, and assessments. For example, in a Virtual High School course called Pre-Veterinary Medicine, students study the skeletal system through an online dissection of a "virtual pig."

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At the same time, students discuss their attitudes about the process and the ethical issues surrounding both virtual and lab dissections. This is repeated throughout the semester, as students discuss such topics as the ethics of euthanasia, dissections, and medication vs. surgery, while learning biological concepts related to veterinary science.

2. Instructional design In online education, the medium is no longer the message—it is the means of transcending barriers of time and place. Well-designed online courses foster a high level of student-with-student and student-with-teacher interaction. Students have enough time to reflect upon other members' contributions and compose responses to course discussions.

For teachers, online courses make revising lesson plans easier because all course documents—lesson plans, syllabi, activity descriptions, leading questions, and assessments—are readily available and easily modified. This helps teachers guide students in their collaborative learning experiences, rather than deliver the learning to the student.

3. Teacher quality It is critical that teachers play a daily role in online classes—guiding students in their learning experiences, providing timely and appropriate feedback, moderating and facilitating in-depth online discussions, and modifying course delivery and assessments to meet a variety of learning styles. Teachers may still play the role of content experts, but their role in delivering that expertise changes, and appropriate professional development is necessary to help them make that change.

As one Virtual High School teacher said, "I have learned that the most important thing we can teach our students is not what to learn, but how to learn. Each student I have encountered in VHS is from a different school, background, and academic level. The challenge has been in bringing out the inner student in each participant. They all have the ability to learn, but the desire to learn needs to be fostered."

4. Student roles In many ways, the opportunity for students to communicate privately with a teacher is more beneficial than face-to-face interaction. At-risk students may find that online courses give them the opportunity to succeed in a different learning milieu. Here a student can ask questions that might never be asked in the traditional classroom for fear of classmates' reactions.

Online education courses should allow students to reach content experts, learn from teachers located anywhere in the world, and interact with students globally. They should also provide opportunities for students with long-term illnesses or disabilities to continue participating in learning from home or other locations. Online courses should provide opportunities for students to advocate for themselves on grades or assignments, which fosters independence and maturity.

5. Assessment Online courses should include a variety of assessments to meet individual student needs and learning styles, with an emphasis on authentic assessments over more traditional tests and quizzes. Assessments may include research assignments, weekly journal entries, discussions and postings in the online course room, team projects, tests and quizzes, and papers.

Shorter-term assignments, discussions, and postings can be used to keep students engaged in the online course on a daily basis. Longer-term projects, papers, and team activities often need to be broken into smaller sections so teachers can replace face-to-face reminders with required check-ins on progress.

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6. Management and support systems Students need management and support systems to support the online learning experience. Many will be similar to the types of services students receive in bricks-and-mortar schools: registration and grading systems, counseling services, teaching assistance when they have questions about assignments or the curriculum, library resources, and guidance services.

Because of the online environment, additional services may be necessary. Such services may include 24/7 help-desk support, an orientation on how to use the delivery platform, instruction in online etiquette, and an on-site mentor who acts as the liaison between the student and the online teacher.

7. Technological infrastructure Online courses require an adequate technological infrastructure. Students need regular access to appropriate hardware and software as well as the Internet. Security measures must be in place so students cannot visit inappropriate websites, and classes must be protected from outsiders. Information about students must be secure, and those without appropriate permission to make course revisions must not alter online curriculum.

Rigor, relevance, and relationships

Online courses and virtual schools can be seamlessly integrated with current classroom and school-based instruction, but to be successful, you must address issues around local, state, and federal policy.

Most policy at the local, state, and federal level was developed when same-time, same-place instruction was the primary or only model used. These policies may not be as appropriate to online education. Policies that stipulate that only state-certified teachers can work with students from that state need to be reviewed and revised so that online learning can take place over state lines. Curriculum standards and policies that do not address online design and delivery should be revised as well to guide online course developers, instructors, and consumers.

With more opportunities in online learning, parents now have more choices. But without knowing how to choose, they might make decisions that are not in their children's best interests. Parents—especially those whose students are in under-performing school districts—need criteria for online course evaluation and selection.

One way teachers and schools are being asked to narrow the achievement gap is to make sure that all students are learning. Traditionally, in face-to-face classes, the constant has been the teaching and the variable has been the learning. The No Child Left Behind Act has flipped the two, making it appropriate and timely to define a new set of three R's for 21st century learning.

Learning based on rigor, relevance, and relationships for all students is possible, and online education is one tool for school boards and administrators to use. Students can take courses that are relevant to them and to their needs as lifelong learners—courses that give them opportunities to study topics in great depth, collaborate with industry mentors, learn to manage their learning time, and develop independent learning skills. Through online collaboration and virtual classroom experiences, they can build relationships with students and teachers globally, learning not only curriculum and content, but also collaborative and global citizenry skills. It's a good match for tomorrow's learner—today.

Liz Pape is president and CEO of Virtual High School, a nonprofit consortium that provides online learning for more than 6,000 students and online course design for 268 schools and 152 teachers in 29 states and 24 countries.

<http://www.nsba.org/site/doc.asp?TRACKID=&VID=2&CID=1234&DID=36390>