Blended Teaching and Learning

BY LIZ PAPE

From The School Administrator

A few months ago, I walked into the computer lab at EBC High School for Public Service in Brooklyn, NY, and watched as students, working in teams, created blogs and wikis to share information about human rights violations. I was there for an ABC News taping on the use of technology in classrooms.

The network news report looked at New York City Opportunities for Online Learning, or NYCOOL, and the reporter interviewed the students and their teacher, Kimberly Cahill. A social studies teacher, she has been using a blended teaching model with her students for the past three semesters.

Cahill's students in the Participation in Government and Global History course are using Web 2.0 tools—wikis, blogs, podcasting, digital storybooks, and discussion forums as well as cell phones and home and school computers—to share information on human rights violations, where they occur, and what is being done to correct them. Students previously uninterested in the coursework became more engaged once Cahill introduced Web 2.0 tools into her classroom, giving students the opportunity to create work on the Internet that could be shared with others.

Online Tool Use

What Kimberly and her students are doing is commonly called *blended learning*, using online tools to communicate, collaborate, and publish, to extend the school day or year and to develop the 21st-century skills students need.

With blended learning, teachers can use online tools and resources as part of their daily classroom instruction. Using many of the online tools and resources students already are using for social networking, blended teaching helps teachers find an approach that is more engaging for this generation of students.

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The benefits of blended learning include giving students a variety of ways to demonstrate their knowledge while appealing to diverse learning styles and fostering independent learning and self-directed learning skills in students, a critical capacity for lifelong learners.

Blended learning incorporates online tools into students' toolkits, which in the past have consisted of notebooks, paper assignments, and "stand and deliver" classroom presentations. This expanded toolkit helps students better develop their higher education and workforce skills. Blended learning extends teaching and learning beyond the classroom walls, developing critical thinking, problem solving, communication, collaboration, and global awareness.

Continuity of Learning

School leaders have recently focused on the impact of a pandemic on schools and student learning. How do schools continue student learning over several weeks when a school building is closed down, either because of high levels of illness within the building, or worse, because the building needs to be used for another purpose due to a national or regional emergency?

Blended learning can keep teaching and learning going even when schools are closed. More important are the opportunities that blended learning offers to extend teaching beyond classroom walls during more frequent mundane events such as sick days, student athletic events, and snow days.

John Wilson Jr., an AP English teacher in Wareham, MA, uses several online tools, including blogs, wikis, podcasts, and learning management platforms, to reach students not in class and as a means of offering online options to extend the classroom learning experience.

"I use the blogs as a way of helping my AP students to develop a unique writing voice that should help them do better on the AP test. I use wikis for some of the group projects I assign so that students can continue to work on the projects after our computer lab time has expired," Wilson says. "I am trying to give my students some experience with online learning practices so that when they get to college, where online course offerings are becoming more commonplace, they won't feel so out of touch. I began using these tools because I kept hearing from students how they were out the day I gave quiz notes or were out the day I gave the quiz and were not able to stay after school to make it up."

For students with extended absences, from long-term illness or participation in national or international extracurricular commitments, he has created alternative online quizzes so he can continue to assess them outside of his classroom.

Personalized Connections

Jefferson County, KY, Public Schools is connecting with its community through a blended learning model. Using JCPS Online, the district's learning management system, practicing engineers from the local General Electric plant serve as virtual mentors with pre-engineering students at the high schools through discussion boards and blogs.

Blended learning is not just for high school or middle school students. At the elementary school level in Jefferson County, social studies students create blog journals assuming the role of one of the signers of the Declaration of Independence. One homework assignment requires students to react to the convening of the Constitutional Congress by contributing to a wiki in character. Students no longer study historical events; they have become participants in the unfolding of history.

In the Millis, MA, Public Schools, technology director Grace Magley uses blended learning to make online resources available in a one-to-one learning environment. She says it is a more effective means of delivering instruction and managing the learning environment.

The 1,400-student Millis district, which is located 19 miles southwest of Boston, experienced early success through a pilot project offering course electives in art, technology, and video production in grades 5–12. This led to the adoption by all high school teachers of a project-based, blended learning model. Over the last three years, Millis teachers have used blended learning to cover more content with students and at a higher level than in a traditional classroom. They are better able to differentiate their lessons for different kinds of learners with Web 2.0 tools, freeing up class time for more applied learning through projects.

This year, freshmen and sophomores are working on theme-based projects in all core subjects. As part of their project, students will use Web 2.0 tools and will participate in online discussion forums. They will complete an individual electronic portfolio that reflects on what they have learned through their projects.

"The plan is to expand these projects to all four years of high school and to have them be more significant each year so that by senior year, their senior project will be a major contribution to their local or extended community," Magley says.

In New York City, the school district is partnering with the Virtual High School Global Consortium to bring blended learning to high school students in Brooklyn. New York City Opportunities for Online Learning teaches students how to use Web 2.0 tools in project-based learning through the VHS-designed

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online course Digital Literacy for a Digital Age.

In this six-week online course, classroom teachers assign a project to the students, to be completed by course's end. Students research their content-specific assignment while learning how and why to use various online tools. The result is a Web 2.0-based student project in which students share what they have learned about the classroom assignment, such as the human rights project in social studies.

In other projects, students used Del.icio.us to bookmark resources in a world religions class and for math topics, including prime numbers and the Babylonian number system. Other students created blogs on the effects of global trade and the connection between the Mongol Empire and modern acts of terrorism. Others created a math wiki, which became a shared resource of key vocabulary words and concepts in algebra.

Student Engagement

Through blended learning, students are given the power to choose the means of communication most suitable to them storybook, PowerPoint, drawing, web pages, podcasts, etc. This plays to students' different learning and communication styles, ultimately engaging them more in their learning.

Initially, not all students may

feel comfortable working in this new environment or with their newfound power to make decisions about their learning. Students may push back against their teachers, asking for face-to-face assistance on learning resources available in their online environment. They may be hesitant to take a more active role in their learning, preferring the teacher hand-feed them what they need to learn, rather than using their information literacy skills to find the information for themselves.

However, as students realize that using online resources helps build deeper content knowledge through the ability to review materials online, have more frequent peer reviews through online discussions or blogs, and participate in online self-assessments designed to help them measure their mastery of the content, their expectations about the teacher-student relationship change. Once students realize they no longer are passively waiting for the teacher to provide them with their learning objectives and resources, they take a more active role and become impatient when the teacher has not posted what they need to begin their learning.

"We have had students go to teachers and ask why they have never posted a podcast or video to explain a certain concept. The students begin to become vocal about what they need to become successful learners," Magley says.

Teacher Development

Teachers need time, resources, and professional development to use blended teaching well. The problem is that most teachers have not been prepared during preservice training to use these tools nor have they learned to instruct students in how and why to use such tools in their learning.

Little research exists on effective models of professional development for blended learning. However, research on effective models of K–12 online course design, online teacher preparation, and online teaching standards can offer guidance for developing an effective blended teaching and learning model for all schools.

The Washington, DC-based International Association for K-12 Online Learning, or iNACOL (www. iNACOL.org), has published standards for online courses, online teaching, and online programs based on the available research. In a study of high school online teachers who also teach in face-to-face classrooms. Susan Lowes, director of research and evaluation at the Institute for Learning Technologies at Teachers College, Columbia University, identified higher-level learning activities that teachers were incorporating into their face-to-face classroom instruction as a result of their online teaching experience.

Online courses in which cohorts of students are required to engage

in online discussions, online group activities, and online presentations can serve as a model for blended learning, whose goal is to develop similar online skills during classroom instruction.

However, classroom teachers need not become online teachers to develop their blended teaching skills. What is important is that teachers become familiar with Web 2.0 tools and learn and practice their application in their classes. That knowledge and experience can be gained in various ways, including combining online professional development with collaborative face-to-face workshops, combining online training with an online teaching apprenticeship and creating a series of courses as scaffolding for the levels of Web 2.0 skills training needed for the final course product.

During the pilot project in Millis, teachers took a three-credit online course to learn about blended learning and how to apply it to their classes. However, teachers reported this was not enough to prepare them for making changes to their face-to-face courses. Face-to-face study groups began meeting regularly to get things off the ground during the curriculum development phase.

The support of the study group in learning to make the most of the blended learning environment and to share the results of what they were discovering about blended

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learning in their classes was a critical factor in the successful implementation of blended teaching at Millis. Based on that success, Millis developed a teacher professional development model that incorporated both online training courses and face-to-face workshops as part of its professional learning community. The face-toface workshops were important for helping teachers with the specific how-tos they needed for building a blended course as blended learning was expanded throughout the high school.

NYCOOL's Brooklyn classroom teachers developed their Web 2.0 skills by taking an online course and then apprenticing with master online teachers. The professional development course, Using Web 2.0 for Teaching and Learning, was developed by VHS based on experience in developing and delivering online courses. Because the grant duration was not sufficient to give the NYCOOL teachers enough time to build their blended courses, an apprenticeship program was developed to supplement the online professional development.

VHS created Digital Literacy for a Digital Age, an online course for students that was taught by VHS teachers and required 1–2 hours of student course work per week. The NYCOOL teachers worked with the VHS master teachers in the online course as students learned how to use Web 2.0 tools to create their classroom projects. The course provided students with the instructions on how to use online tools and resources, and the VHS online teachers provided guidance to students as they created their classroom projects.

Participatory Training

VHS has taken a third approach to developing blended-teaching skills in classroom teachers with a series of online courses that address blended teaching skills and require that teachers create end-of-course projects they will use in their own blended classrooms. The 21st Century Teaching Best Practices model (www.govhs. org/Pages/ProjDev-Home) blends teaching and learning for teachers by having teachers participate in online activities they can then put into practice in their blended classrooms. For teachers to learn how to use blogs, teachers are blogging about the hows and whys of blogs and creating lesson plans for their students within their blogs.

Each course focuses on why teachers would want to use blended learning and then provides the how-tos for incorporating these tools into instruction. The courses include opportunities for teachers to build a lesson for their specific classroom use, ensuring a model of professional development that includes training, time, and resources for a successful transition. Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.