21st Century Scholars

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Students plant sea grass to protect the dunes on a local beach.

At Bethpage High School, students build an impressive portfolio of mind-stretching learning experiences—and it all takes place outside the regular school day.

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Although Bethpage Union Free School District in suburban New York had a 99 percent graduation rate and a 98 percent Regents Diploma rate, we were not satisfied. For many years, teachers and administrators in our 3,200-student district had talked about the need to do more to prepare our students to be critical thinkers and problem solvers in the 21st century.

We were aware of the work of the Partnership for 21st Century Skills (www.21stcenturyskills.org), which established a useful framework for educators determined to go beyond No Child Left Behind mandates. At the core of the partnership's framework is content—a deep understanding of math, science, history, literature, and the arts. The framework then adds skills that 21st century students need—global awareness, financial literacy, health awareness, information technology skills, critical thinking, creativity, and a strong work ethic.

Although we believed in the partnership's core mission, we had to think long and hard about how we could best implement a program based on its principles. Our teachers had worked tirelessly and achieved tremendous success in meeting the challenges of assessment-driven accountability. We were not comfortable asking them to revamp their curriculum to reflect themes that were not emphasized by our state education department.

As an alternative, we began to explore the idea of extending the school day with a program of voluntary after-school, evening, weekend, and vacation

Students attend a political debate beteen Karl Rove and James Carville at Radio City Music Hall in New York City.

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activities that would challenge students and engage them in expanded learning opportunities. The result—the Bethpage 21st Century Scholars' Program—is now embarking on its second school year. We have been overwhelmed at the creativity and enthusiasm of teachers, the response of students, and the support of parents.

Preparing to Launch the Program

Program planning began with a team of dedicated teachers and administrators who met periodically for six months. This organizing team established seven categories of 21st century competencies under which activities would be organized: communication, information technology, global awareness, financial literacy, health literacy, career awareness/self-directed skills, and community service. Within these categories, we wanted to offer activities that would give all secondary school students the opportunity to join in, find their passions, and expand their minds.

On the next staff development day, the team gave a presentation to the whole faculty about the challenges facing this generation of students. We spoke briefly about Thomas Friedman's *The World Is Flat* (Farrar, Strauss, and Giroux, 2005) and Daniel Pink's *A Whole New Mind* (Riverhead, 2006). We talked about the changing nature of technology and the challenges of a global marketplace. We introduced the Partnership for 21st Century Skills framework and discussed our district's strengths and weaknesses as measured by the framework's components. And we outlined our idea, still in its infancy, of offering students the opportunity to create an electronic portfolio documenting educational experiences. Students would engage in these experiences mostly after school, on weekends, and during vacations.

During the second half of the staff development day, as the high school departments met together, teachers brainstormed activities and projects that would fit into the seven categories. We encouraged the teachers to dream. There was a burst of creativity! Great conversations took place immediately: "Why not hold a philosophy slam?" "Do you think we could take students on a tour of the United Nations headquarters?" "How about giving students credit for listening to or viewing college-level lectures on iTunes or Second Life?" "I know some students who would love a news discussion group." By the end of our first day, teachers had suggested more than 230 activities.

During the summer, the organizing team met once a week to refine the program offerings. We decided that students would create an electronic portfolio of artifacts—written pieces, performances, artwork, multimedia projects, presentations, and so on—as evidence of their participation in various activities. We developed simple, generic rubrics for the different types of artifacts, which the teacher in charge of each activity would use to determine whether a student's work was acceptable.

We also brought students into the conversation. A student representative came to the summer committee meetings and was enthusiastic about the

idea. Later in the summer, we met with a focus group of students who were also eager to see the program launched.

The more we delved into the project, the more questions kept cropping up. Who would be responsible for administering the program? What weight would we assign to each category and to each activity? Could a student count an experience that was offered during a regular class as an activity for program credit? Could we expect seniors to complete the full portfolio in only one year? And what would this electronic portfolio look like?

Aiming for implementation at the start of the school year seemed like a daunting task, but we persevered.

Mapping Out the Details

To design the portfolio, we talked with our resident tech staff. After much discussion, someone had the idea of adapting a staff development system called My Learning Plan that was already used in the district. This software enables teachers to electronically apply for permission to attend a conference or course, get approval from an administrator, attend the event, write up a conference report, and earn credit. That was just the process we were looking for! Our programmers set to work, putting in many hours of their free time to adapt the system and make our vision an electronic reality.

Knowing we were in the good hands of our programmers, we moved forward on some of the other questions. We reviewed hundreds of suggested activities and talked about the point value to be assigned to each. We agreed that students would be required to earn 100 points for a completed portfolio (except for current 11th and 12th graders, whose requirements were 80 points and 65 points respectively because of the limited time they had left before graduation). Students who completed their portfolio would receive a special 21st Century Scholar Diploma. In addition, we would seek scholarship money through a fund-raising drive in the community, with the hope of collecting enough to grant some form of scholarship to each student who successfully completed the program.

To ensure the breadth of experiences we were looking for, we would require students to complete a certain number of activities in each category: 20 percent in communication, 20 percent in global awareness, 15 percent in financial literacy, 10 percent in health literacy, 10 percent in community service, 15 percent in career awareness and self-direction skills, and 10 percent in information technology. Announcements of upcoming activities—trips, guest lecturers, book discussions, and so on—would be shared on the 21st Century Scholars' Program e-mail discussion list.

By mid-August, we had the outline of our 21st Century Scholars' Program. We had recruited corporate supporters (such as Cablevision, Cisco, and Dell) to provide internships, shadowing experiences, and guest speakers and to endorse the 21st Century Scholar Diploma. We also identified a dedicated teacher, Karen Thomas, to devote half of her teaching schedule to administering the program—approving student requests, answering questions about activities, taking in suggestions from students, coordinating activities with the teachers sponsoring the individual events, and ultimately awarding the points based on completion of the requirements.

In a national robotics competition, students design, build, program, and test a robot that can pick up balls and deposit them in a basket.

Embarking on the Journey

In the first week of October 2008, we held grade-level assemblies to introduce the program. We showed a PowerPoint presentation stressing the changing global marketplace and the importance of a broad education. We assured students that the program was voluntary but encouraged them to join. In the following weeks, we held several sessions to show students how to create their electronic portfolios—how to log on to the database, apply to enroll in activities, document completion, and see how many points they had accumulated so far.

We also held a series of parent information meetings stressing the need for 21st century skills. The parents were supportive and felt that these skills were important for their children; some offered suggestions of how their employers could help.

Students enrolled in the program in high numbers. Few seniors were willing to participate—although they liked the idea and told us they wished it had begun earlier in their high school careers, most felt that it would be too much of a burden to earn the requisite points in one year. But 50 percent of

juniors, sophomores, and freshmen—a total of 450 students—signed on and began to apply to attend activities. In the first weeks of the program, Karen Thomas was overwhelmed by the hundreds of requests waiting in her approval queue. It was a great launch!

Naturally, the students took to the idea of the electronic database with no problem. The database gave the students ownership of their own pathway, allowing them to choose from among hundreds of activities. We asked them to challenge themselves to try things they had never done before, and they responded.

The core of the program, however, was the creativity of our teachers. The ideas poured in; there was even a bit of competitiveness as the teachers vied to "out-create" their colleagues. Activities included guest speakers from a variety of fields (finance, foreign relations, energy); trips to cultural institutions (Metropolitan Museum of Art, American Museum of Natural History, Metropolitan Opera); literature circles; a robotics competition; political debates; poetry readings; foreign films and foreign restaurants; dance classes; and using Rosetta Stone software to tackle a third language. The following are just a few examples.

A Sampling of 21st Century Activities

A local church was hosting Step into Africa, a travelling exhibit on the impact of AIDS on sub-Saharan Africa. Several teachers offered to take groups of students to this interactive exhibit, and the activity sold out quickly. Although the exhibit highlighted topics being taught in our Global History class, it would probably have been impossible to find time for it within the regular school day. Offering the experience after school gave 50 students the chance to participate, and they wrote beautiful and moving essays about what they had seen.

In 11th grade, our students always read *The Great Gatsby* by F. Scott Fitzgerald (Scribner's, 1925). A teacher organized a trip to one of Long Island's Gold Coast mansions to discuss the novel and to help students visualize some of the scenes Fitzgerald described. The mansion offers public tours, and the caretakers were enthusiastic about students visiting and discussing the novel in one of the main rooms. It was a perfect setting for a spirited discussion.

Our guidance counselors led a literature circle on *The 7 Habits of Highly Effective Teens* (Simon and Schuster, 1998), a book with strategies that students can use to organize themselves and define their goals. They recruited the author, Sean Covey, to call in from Colorado during one session to talk to the students about his reasons for writing the book and to answer their questions.

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Cyberwarfare—the ability of one nation to take control of the communication infrastructure of another nation—is a hot topic in the information technology world. Three engineers from Northrop Grumman came one afternoon and talked to a fascinated audience about what capabilities for such a takeover already exist. They demonstrated their own ability to view all the cell phone activity in the room (there was plenty) and explained how technology enables people to do various illegal things, such as making a message appear to come from another phone or viewing images that reside on someone else's phone. They extrapolated what these capabilities mean to U.S. security. The students were mesmerized by the discussion. And two days later, when the *New York Times* began a front-page series on that very topic, the students were informed media consumers.

One teacher organized a group of students to raise funds to support entrepreneurs in a developing nation. Students raised more than $500 through bake sales and car washes. Then they researched worthy recipients on the Kiva Web site (www.kiva.org), reviewing hundreds of applications from people around the world—mostly shopkeepers and aspiring artisans—who were looking for seed money to support their entrepreneurial endeavors. Students chose three individuals from Nicaragua, Ghana, and Azerbaijan to support with loans. Kiva has an excellent track record of being paid back in full; when the funds are returned, the students plan to lend them out to a new round of recipients.

Our science director found a group simulation activity called the Climate Change Game created by an organization called Big Picture, Small World (www.bigpicturesmallworld.com). In the simulation, students assume the roles of diplomats from various countries, corporate executives, and labor leaders. Different scenarios are put forth, and each student assumes the policy position of the role he or she has been assigned. More than 110 students stayed after school to play the game for three hours, using their critical-thinking skills to explore an important topic in depth—and enjoying it tremendously.

Several teachers and administrators volunteered to moderate an online current-events forum. Each week, they post a link to a recent news article along with a few discussion questions; students enjoy participating in the electronic dialogue, posting their own comments and reacting to the postings of their peers. Topics have included privacy issues related to global posi-

tioning systems, a comparison of Franklin Delano Roosevelt and Barack Obama, a celebration of Lincoln's birth, and an article on Bolivia's domination of the lithium market and the implications for future battery development.

Exploring New Directions

On a recent staff development day, 20 students in the 21st Century Scholars' Program became teachers for part of the day. Using what they had learned through program activities, they taught classes on DNA extraction, dance, pilates, podcasting, digital music composition, digital photography, and *The 7 Habits of Highly Successful Teens*. The interaction of the students and teachers on that day was priceless. Students were able to create lessons and teach the topics and skills with great authority. The teachers enjoyed the experience and were proud of their students.

Students have taken charge in another way—in some cases, they have become the catalysts for program activities. For instance, one student found and interviewed a former Tuskegee airman and set up a day for him to come and discuss with students his experiences as a black pilot during World War II.

Parents kept asking us to expand the program to our 770-student middle school, and we did so in March 2009. Activities have included guest speakers (nutrition, leadership); mountain biking; fitness activities; home repair; literature circles; an etiquette class; a trip during a vacation to Ellis Island; classes in Scrabble and Equate (a math version of Scrabble); cooking classes; and a demonstration on alternative energy. The middle school students use the same electronic portfolio program to apply for activities and to track their progress. More than half are already participating.

At a recent board of education meeting, students thanked the board and the community for committing resources to this cultural renaissance in Bethpage. After just one year of operation, it is clear that we have embarked on something meaningful for students. The 21st Century Scholars' Program has expanded students' school day, engaged them in interesting projects, and given them opportunities to explore new fields. We are striving to create a balance of activities that are engaging and yet require critical thinking, creativity, and independence. We're looking forward to year two! EL

Author's note: For more information on the Bethpage 21st Century Scholars Program, visit www.bethpagecommunity.com /Schools/21stcentury/index.htm.

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