

Learning Goals

Grades: 9–12

All subject areas:

Grade-appropriate higher-order thinking skills; technology skills.

Science/health:

Nutrition, ecology.

English/language arts:

Communication skills.

A Web site rooted in a community-based, food-growing project yields a harvest of learning opportunities for students.

by Jeff Carter

Technology... At Your Service

When it comes to service-learning, students at the EcoTech Service-Learning Center at University City High School (UCHS) in West Philadelphia, Pa., are not afraid to get their hands dirty. Many of their projects, in fact, spring from their work in the three-quarter acre vegetable garden they maintain adjacent to their school. For the last two years, they have used that garden as a vehicle for learning and teaching others in their community about food, good nutrition, and the environment. Now, they are taking their message to the rest of the world with the introduction of their latest project—the PhillyTURFtech Web site—an example of how technology can support and enhance service-learning projects.

Community-based, service-learning initiatives like the EcoTech program might not, at first, seem like a natural place for technology. Gerald Boerner, an associate professor at the School of Education at Azusa Pacific University and an adjunct professor in Computer Information Systems at Riverside Community College in California, is a frequent writer and speaker on the use of technology in service-learning. He notes that while a perceived strength of service-learning is putting students in close contact with real people and issues in their communities, technology is often

thought of as involving socially isolating activities. However, Boerner argues that technology can play an integral role in service-learning when applied appropriately. "It behooves the service-learning practitioner to look at how technology can be harnessed to better prepare and empower their students to actually go out and complete the actual face-to-face work," he says.

EcoTech

While the PhillyTURFtech Web site will help spread the word about EcoTech across the world, the initiative (one of six service-learning communities that make up UCHS) is grounded in the people and the community of West Philadelphia. According to Martin Galvin, the Small Learning Community coordinator at UCHS and EcoTech coordinator, the impetus behind EcoTech was the prevalence of nutrition-related diseases such as obesity, hypertension, and diabetes, and their impact on the West Philadelphia community. Working with partners at the Urban Nutrition Initiative at the Center for Community Partnerships at the University of Pennsylvania (which is located nearby), they started looking at ways they could design an instructional framework for a service-

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learning initiative that would address this problem.

"We realized early on," Galvin says, "that if you simply do health and wellness classes, it has minimal impact. Especially for high-school students, you need a far more sophisticated approach. And looking at a problem that is affecting our community is an incredible thing for students

to work on and help solve."

Galvin likes to emphasize the importance of combining classroom learning and experiential learning with this analogy: "If you're going to have a student learn about cats, a good way to do it is for them to pull a cat's tail. You'll learn a lot about a cat that way. You can read about cats in a book, but you're only going to be able to go so far. You need to get kids out and see how ideas play out in reality. We try to combine both."

The EcoTech students are involved in many community-oriented projects focused on improving health and nutrition in the West Philadelphia community. They grow herbs in a refurbished greenhouse on the roof of the school. Then they sell their herbs and vegetables at a Saturday farmers' market, which they also manage with the help of an organization called Farm to City. (Farm to City develops urban-rural partnerships to help small farmers and bring locally produced, high-quality farm products into Philadelphia.) They also design and deliver lesson plans on nutrition and good eating habits for local elementary-school students. EcoTech is also working with UPenn students and other volunteers to conduct a community mapping project and study community nutrition patterns.

All of these activities are deeply integrated into the core curriculum, as well as elective classes. For example, an elective on the Politics of Food and Poverty looks at why people lack access to healthy food or cannot afford the food they need. After looking at the problem from a social-science perspective in class, the students designed a food-stamps education program as a way of addressing the problem in their neighborhood.

The Role of Technology

Technology has been used to address a specific need identified by EcoTech at the outset of the 2001–02 school year. "We felt there

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were going to be a lot of students writing about different issues, investigating a lot of things, and we needed a place, and way to inspire them to want to write," says Galvin. "So we decided to develop an online magazine. We got a group of students together and we set it up like a company." To accomplish this, the school acquired a grant to upgrade their computer lab. They purchased eight new computers and a server, Web-design software, a digital movie camera, and a digital camera for still pictures. Then, a group of about 20 EcoTech students were recruited to begin designing the site, PhillyTURFtech.

While the site is still at the beginning stages, the e-zine will eventually provide all EcoTech students an opportunity to publish articles on the ecological, environmental, and social issues in West Philadelphia that they are learning about. The Web site is set up to allow teachers access to their own part of the site. If their students are working on a writing project, teachers can post those stories directly to the site themselves.

Eventually, the plan is to develop a more formal production schedule for the e-zine, with tenth-grade English class students serving as editors. Other students will submit their articles to these students, who will help edit a final draft suitable for publication on the site. The editors will hand off finished stories to a design class, whose job will be to gather photographs or create other artwork to go along with the story. Then once that is completed, the editors will upload the finished story to the site.

In the coming months and years, Galvin expects the site will become an increasingly important focal point for writing projects across all the EcoTech classes, and serve to inspire more students to write. Galvin and his colleagues want to do more with student writing than simply file it away in student portfolios. It's one thing, he notes, to tell students that they've got a lot to say, "but when they see those stories go up on the Web site, then they believe that."

Finding Technology's Place

Boerner sees a role for technology in all phases of service-learning projects—preparation, the actual service-learning activity, and reflection and debriefing. Ideally, in Boerner's view, these would be cyclical: the debriefing phase from one cycle would feed into the preparation of the next cycle. During the preparation phase, for example, Boerner sees a role for technology in getting students ready to work on projects or in agencies outside of school. "Our experience here in Southern California is that many agencies in which we place students don't have the time to train and orient the students. But virtual tours and online tutorials can prepare students for what they will experience at the site—and relieve the site people from hours of orientation sessions."

As far as actual participation is concerned, Boerner points out that technology may motivate students with computer skills who might not otherwise participate in service-learning to get involved. "We have had very high success rates with students doing, for example, newsletter templates for agencies, or having students develop Web sites for public agencies," he says. "It enables those students who are not naturally inclined to 'high-touch' activities to become more personally involved in their communities."

Technology can also motivate students in other ways. Galvin hopes that the PhillyTURFtech project will turn more students into technology enthusiasts. "People in the inner city increasingly have access to technology, but there are not a lot of things that inspire them to want to go online. So this was one way to bring urban youth online."

Plus, Galvin adds, the project offers his students an opportunity to publicly challenge stereotypes that are frequently perpetuated in the media. "One of the things about urban youth is there's kind of this national message that young people living in the inner city commit crimes," he says. "Unfortunately that's the kind of message the media feeds them. Not that they believe that—they know

that that's not who they are." By supporting PhillyTURFtech, the school is demonstrating in a powerful way that it values what the students have to say, and believes they have something to contribute.

PhillyTURFtech will also enhance the reflection phase of the school's many EcoTech service-learning projects. "Over time it will become an archive," Galvin points out. "We can have kids access those stories and learn from other students. We'll have a body of knowledge that is student-created and student-constructed."

"If the debriefing and the experiences of one group can be stored in a discussion thread, electronically published, or abstracted into a set of anecdotal experiences," Boerner says, "that can create a group memory and help new students know what to expect. A Web site can become a repository for these group memories, as well as a vehicle for collecting information from the students, from the agencies, and from the faculty members involved."

Galvin notes that while PhillyTURFtech is still at the beginning stages, students already see the site as "the culmination for whole project." As it grows, it will not only become a helpful resource for learning about service-learning in one community, it will serve as an example of integrating technology effectively into service-learning. ◀

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phillyTURFtech
<http://www.phillyTURFtech.org>

The Urban Nutrition Initiative Project
<http://www.upenn.edu/ccp/uni.shtml>

For an online version of this story with links, visit <http://www.ciconline.org/Enrichment/Teaching/learningwithtechnology/default.htm>.