

By Katherine L. Hughes and Joanne Wang Golann

# A Virtual World WITH REAL RESULTS

**BY USING A PROJECT-BASED, COLLABORATIVE LEARNING MODEL, THIS PROGRAM TEACHES STUDENTS ABOUT BUSINESS AND TECHNOLOGY THROUGH TASK-ORIENTED COURSEWORK.**

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**A VISIT TO THE BASKETS AND BOUQUETS FIRM BEGINS WITH A STOP AT THE RECEPTION DESK** where guests are signed in and then announced to the CEO. The space looks like a typical office, with a dozen or so professionally dressed employees working in their cubicles. In the sales and marketing department, an employee is designing a new logo for the firm; an employee in the human resources department is planning a conflict resolution workshop; members of the accounting department, meanwhile, are working on the firm’s business plan, preparing for an upcoming presentation to potential investors. This firm may seem like a typical business, except that it is located within a New York City (NYC) public high school and is run by 17- and 18-year-old students. It is part of the Virtual Enterprises (VE) network. While the firm’s products and revenues are virtual, the work is real.

### What is Virtual Enterprises (VE)?

VE International is a high school career and technical education (CTE) program that teaches students about business by having a class create and operate its own virtual firm. In the VE network, there are many different types of firms—including law offices, insurance companies, specialty bicycle shops, and even a hotel in Cancun, Mexico. Students are employees of their firms, making decisions on which products to sell, how to market them, how to determine salaries, and so on. “It’s us just running everything,” said one student. “We’re so used to having the teacher telling us what to do.” Advocates of CTE reform argue that CTE programs must

be academically rigorous and technically relevant, and extend learning outside of school in order to better prepare students for both careers and college. By using a project-based, collaborative learning model, this program teaches students about business and technology through task-oriented coursework. In some VE firms, students also study an applied economics curriculum, thereby linking the business enterprise to an academic subject required for high school graduation, and increasing the rigor of the course. The program also integrates experiences outside of the school with classroom learning, offering students opportunities to participate in weekend career workshops, internships, city and national competitions, and college courses.

The use of virtual firms as an instructional tool is well-established in Europe, and in 1994, a group of NYC high school superintendents visited Vienna, Austria, to observe the virtual firms in its secondary schools. Two years later, the NYC Department of Education implemented the program in seven city high schools, the first program of its kind in the United States. By 2006-2007, the program was operating in 53 NYC high schools and more than 450 institutions across the country.

### An Assessment of the VE Program

The city’s Department of Education invited the Institute on Education and the Economy (IEE) at Teachers College, Columbia University, to conduct the first external study of the program in 2006-2007. The study sample consisted of 16 well-established VE firms in 10 comprehensive high schools. Researchers conducted site visits,



observing the classes and interviewing VE teachers (called coordinators). They also attended VE workshops, events and competitions, and professional development meetings. Researchers also conducted interviews with staff at the education department who operate and oversee the program. To examine student perceptions, researchers administered an end-of-the-year student survey. A total of 215 surveys from 16 VE firms were completed. Reflecting their schools' compositions, the survey respondents were predominantly minority students—divided evenly between males and females—and almost half the students reported that the highest level of education attained by their mother was high school graduation or less.

### **A New Approach to Teaching and Learning**

Student-centered learning is at the core of the program. Instead of using a traditional lecture format, VE promotes student-directed, project-based learning. On a typical day, students design brochures in Photoshop, calculate their taxes in Excel, hold an executive meeting, or buy (virtual) gift baskets over the Internet from another school's firm. They work independently or in small groups and have discretion over how to accomplish their different tasks. For many students, having autonomy over their learning is a new experience that can be both exciting and to some extent unnerving. "They're used to the teacher [and] blackboard," said one coordinator. "They depend more on me than they should. I try to step back, [be the] last person they see."

A variety of recruitment methods are used to attract students who might be a good fit for the program. VE coordinators visit classrooms to promote it, distribute "job applications," ask teachers for recommendations, and invite students to come in for "job interviews." While most programs do not set formal eligibility criteria, the coordinators look for certain qualities in prospective students, including computer and writing skills, motivation and maturity. "Students don't need to be straight-A students, but they need to have





a passion and want to work hard,” said one coordinator.

VE teachers are called coordinators because their job is to oversee and guide student learning. The curriculum describes the teacher’s role as changing from “sage on the stage” to “guide on the side.” This transition can be difficult for teachers, especially for those who come from traditional teaching environments. Coordinators describe many benefits of teaching in VE. One said, “You get to work with the kids in a different way. As opposed to being teacher-centered, it’s student-centered. And I get to know and understand the student personally.” Another coordinator echoed these sentiments: “I like it better

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than the classroom because it can offer the kids so much more. It’s not ‘do this.’”

### Preparing for the Real World

Almost half the students surveyed indicated that the main reason they applied to

the program was an interest in business.

“I think I’m so passionate [about my work in VE] because this is what I want to do in the future,” said one vice president of sales and marketing. According to the students, “working” in the firm helps them learn a variety of workplace skills. They master office skills, such as answering telephone calls, writing checks, preparing invoices, drafting memos, sending faxes, and creating agendas. They use computer applications for most of their work, becoming proficient in programs like Microsoft Word, Excel, PowerPoint, Illustrator, and Publisher.

“It feels like a real job,” said one student. “You check your pay, your W-2. It’s a real-world experience. It’s a privilege.”



More generally, the program appears to foster critical thinking and problem-solving skills among students. Almost three-fourths of the student respondents indicated that the program helped them develop those skills.

The learning environment also encourages students to develop interpersonal skills and work cooperatively in a team. Seventy-four percent of the respondents indicated that VE helped them learn to work with different types of people. "It's unlike any other class [where] you can be absent for three days and no one else is affected," said one student. While VE promotes teamwork, competition also plays a significant role in the program. A number

of high profile local and national competitions are sponsored, including a national business plan competition and an advertising competition.

While competitions are time consuming and sometimes stressful, they also energize the students, provide recognition for their work and for the program, and serve as an important learning experience: 72 percent of the student respondents indicated that VE helped them feel comfortable working with adults, and 81 percent indicated that VE helped them know how to behave in professional situations. Overall, 79 percent of the students indicated that VE helped them develop realistic expectations of the workplace.

The International Trade Fair is the highlight of the year for most students. It brings together firms from across the country and even a few international firms to buy and sell products. Each firm designs a booth to advertise its products and services, and students wander around the fair making sales and meeting students with whom they have previously had only virtual exchange. Special guests of the program are given "checks" that they can use to make purchases should any firms give persuasive sales pitches. One student described the trade fair as "the most chaotic, tiring, craziest experience I ever had and I would not mind to do that all over again." Another student said, "Even though the program is virtual, the trade fair brings a unique sense of reality."

### **Academic Skills and College Preparation**

By combining a rigorous curriculum with hands-on application of many academic skills, VE aims to prepare students for both careers and college. The curriculum includes a strong academic component focused on writing, speaking, math and technology skills. The program seeks to motivate students by setting high expectations and showing them the relevance of their education. Survey responses indicate that the approach is successful: 58 percent of students found that what they learned was more challenging than what they learned in their other classes, 68 percent indicated that the program motivated them more than their other courses did, and 53 percent indicated that it motivated them to do better in their other classes. It should be noted, however, that the level of academic rigor and student engagement sometimes varies considerably by each student's position within their firm.

Data from site visits suggest that students in leadership roles have greater responsibilities and appear to have more opportunities to participate in academically rigorous work. Nevertheless, participating in the program helped the majority of student respondents feel more prepared for college: 66 percent indicated that it





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improved their confidence about being prepared to do college work, 63 percent reported that it made them believe that college was a realistic option for them, and 67 percent indicated that they were helped in focusing on what they want to study in college. Through arrangements with local colleges, students can enroll in business-related college credit courses for no cost. Proponents of dual enrollment—high school students taking college courses—believe that it helps students understand the academic and social expectations of college and thus gain a broad orientation to college before they leave high school.

One-fourth of the student respondents took a college course through VE, and almost 90 percent of them reported receiving either an A or a B in such a course. Finally, 91 percent of seniors reported that they will go to college in the fall. Eighty-seven percent of them plan to attend full time, which is significant because full-time attendance is associated with a greater likelihood of earning a degree. Moreover, 47 percent of the survey respondents indicated that they intend to major in business in college.

### The Value of VE

Study findings show that the VE program helps students to gain job-readiness and academic skills, which help prepare students for both careers and college. Certainly the program's greatest strength is its student-centered, project-based approach. VE is clearly not a typical high school class, and it does require more resources to support its broad program activities. Given the barriers to college participation and completion, it is critical to support programs such as this because they help students find relevance in their studies, and help them set higher aspirations for the future. According to one staff member, students end the course with a much better idea of what they want for their future: "It lights a little fire—not even little—a big fire" in these students. Seventy-eight percent of the students surveyed indicated that the program helped them believe that they could accomplish their goals. One student put it this way, "The class has given me bigger dreams and hopes of what I wish to do in the future." This article is adapted from a longer report, which can be found at [www.tc.edu/iee](http://www.tc.edu/iee). For more information on the VE program, visit [www.veinternational.org](http://www.veinternational.org). 