

U. of Phoenix Lets Students Find Answers Virtually

By PAULA WASLEY

Kelsey seems like an average American town. Many of its 53,000 residents work in plastics for Riordan Manufacturing, a subsidiary of the Fortune 1000 company Riordan Industries. They give birth at the ordinary Patton-Fuller Community Hospital. On weekends they stroll through the historic downtown or stop by the gourmet grocery, Kudler Fine Foods. And Kelsey's high school, like too many others, has had a large number of teen pregnancies.

You won't find Kelsey on any map, however. It exists only online, in software designed by the University of Phoenix for its business, information-technology, education, and health-care courses. Kelsey and its elaborately constructed fictional companies are what the university calls its "virtual organizations" — online teaching tools designed to simulate the experience of working at a typical corporation, school, or government agency.

For the 345,000 students enrolled in the for-profit university's online or campus-based courses, the virtual schools and businesses function like case studies, in that students use them to diagnose and solve typical problems of organizations. The big difference from textbook-style cases, say the program's creators, is in the level of realism and interactivity.

"With case studies, there's a lot of background, but there's no one to ask questions of," says Kenneth W. Sardoni, who teaches graduate business and information systems and technology. "There are none of the simulated interviews, none of the memos, none of the electronic correspondence that we have in the virtual organizations. So if you have questions on a case, the students have to make assumptions."

Phoenix students, instead, can tap into a virtual world where each fictional school or corporation comes with detailed, simulated scenarios that employees are likely to encounter in the workplace. The scenarios aren't fully interactive virtual worlds like Second Life — they don't provide second-by-second feedback — but they do bring real-world problems to life.

The programs also offer more variety than working out of a textbook, says Adam Honea, Phoenix's dean and provost. In a typical business course, he says, students work on one or two case studies at a time. "But because this is computer-generated, we can have a hundred scenarios and randomly assign them so that each student in the class would get a whole different assignment." And, unlike case studies, in which information comes neatly packaged, students

using the Phoenix software have to hunt for data in multiple files, documents, and records, some of them confusing or incomplete, just like in real life.

Case studies do have their defenders. Andrew C. Wicks, an associate professor of business administration at the University of Virginia, says they do a superior job of "breaking down the pedagogical steps that I take as a student to go from minimal or no knowledge to being a master of a certain set of information in a context."

But, says Mr. Honea, "one of the criticisms of universities is that students will leave, say, a business program, and the business really has to retrain them about how information is used in the real world." In the virtual schools and corporations, he says, "students are already behaving as they would in a real-world situation."

Reproducing Flaws, Too

Phoenix created its first virtual company, Riordan Manufacturing, in 2003, for its business and accounting programs. Since then the virtual world has expanded to eight corporations, four schools, a hospital, and city-government offices. About 500 Phoenix classes — a third of the university's offerings — use the virtual organizations in course assignments.

A student who logs on to Phoenix's virtual-organizations site can, for example, track an imaginary child's progress from Kelsey's elementary school to community college through files of report cards and e-mail messages between teachers and parents. The student can do a cost-benefit analysis of outsourcing Patton-Fuller Community Hospital's cafeteria services and read the blog on which visitors to the Baderman Island resort post complaints.

The programs, created in consultation with Phoenix faculty members — who also hold jobs in the fields they teach — are designed to represent typical schools and businesses. A team of school principals and superintendents helped compile teacher and student profiles, drawing on the personalities and problems they have encountered. Transportation specialists saw to it that the balance sheets for Kauffman Trucking were in line with industry averages. Human-resource experts drew up personnel records for 240 employees at Riordan Manufacturing.

The programs' designers erred on the side of the imperfect to give students plenty of opportunity for problem solving. Riordan Manufacturing, for example, is designed so that its branches' computer systems can't communicate. And the business plan of Kudler's grocery is undermined by the owner's nepotism.

The major advantage of the software, say its creators, is that it lets students examine a business or a school at a level of detail that most employees can't. Before Phoenix introduced the virtual organizations, professors of accounting, information technology, or teacher training typically asked students to seek out data on organizations where they themselves worked. But usually the students didn't have access to the kind of information they needed to make useful analyses. And if they did, they ran the risk of exposing proprietary information.

Students in IT courses who were asked to analyze weaknesses in their company's computer systems, for example, would end up publishing "real live security nightmares," says Mr. Sardoni. The mock companies, he says, let students look into corners usually hidden from them, without running afoul of privacy laws or business restrictions.

Another benefit, say faculty members, is that the programs keep everyone on the same page. In courses that rely on students' research on their own organizations, they spend a lot of time explaining the quirks of their respective sources, says Carlyn Ludlow, who teaches education courses on curriculum design and classroom management. The virtual organizations, she says, offer enough variety so that students encounter a range of issues but still provide a common framework so that students can collaborate on assignments and faculty members can better compare their work.

Programmers continually tweak data and add scenarios. A common assignment in Phoenix's teacher-training courses is to have students create a lesson plan based on the contents of the Kelsey elementary-school supply closet, which, depending on the month, might be well stocked or nearly bare. "That came from teachers telling us at the beginning of the school year they have all these supplies, but they don't get replenished. And as the school year goes on they've got to become more creative with what they have left," says Mr. Honea, the provost.

'The Full Picture'

Charles A. von Urff, who teaches courses in information systems, business, and health and human services, likes the virtual organizations' multipurpose aspect. In an undergraduate information-technology course, he might ask his students to examine Riordan Manufacturing's archive of IT-service requests to diagnose problems with its computer system. At the doctoral level, he has students analyze the IT-related challenges of expanding the corporation to four global locations.

Students say the software gives them a view of how the parts of an organization work together. Most schoolteachers see test scores and other data only for the grade levels they teach, says Katy Wilkins, an assistant principal at a middle school who used Phoenix's virtual-schools program in two master's-level education courses. "The Kelsey schools allow you to access the full picture," she says.

In a course on instructional design, Ms. Wilkins noticed that the parent-teacher communications logs at Kelsey's elementary school mentioned that certain students had comprehension abilities above their grade levels, but that the school district had no program for gifted students. For her final project in the course, she proposed a professional-development program to help Kelsey teachers steer gifted students toward more-challenging activities.

This month Ms. Wilkins plans to present a similar proposal at her Arizona middle school. "With Kelsey schools right there in front of you, it makes you scratch your head and say, I wonder if we actually have something like that in our district," she says.

