Walla Walla High School:

A Rural High School in the Digital Age

Case Study

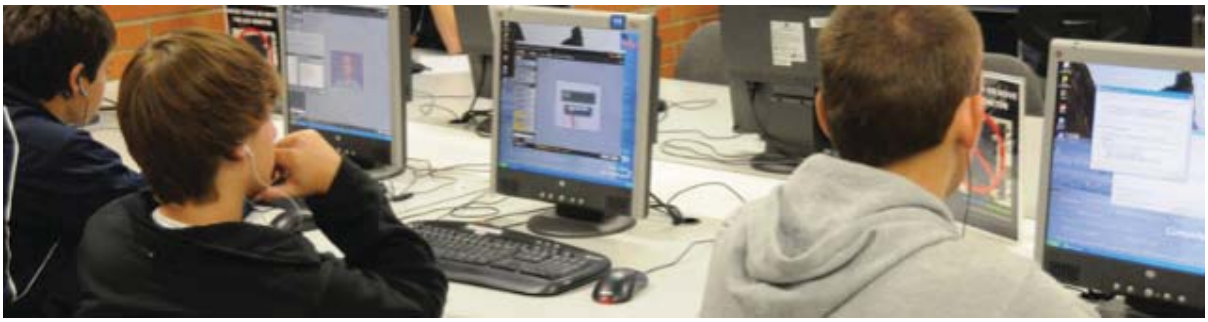
The Need: Employable Skills and A Connection to the Real World

Like many rural schools, the realities of life at Walla Walla High School seemed detached from the rest of the world. For years, many students at the rural Washington State school struggled to fully grasp what it would be like to work for a large organization. They not only needed a way to prepare for occupations they had only heard about, but they had to become motivated to prepare for challenging industry certification programs that, from their perspective, seemed almost meaningless.

"Nearly 73 percent of our students may never complete college," said Dennis DeBroeck, the instructor for the high schoolís Information Technology (IT) program. "We needed to provide these students with a vocational program so they could gain employable skills and find a starting point for careers when they graduated."

Since DeBroeck launched the IT program nearly 16 years ago, he has strived to provide his students with access to the most state-of-the-art technology education. While maintaining a physical computer lab is important, it was also very costly and time consuming. Trying to keep up to date with all of the myriad technologies students need to learn was especially difficult. DeBroeck also struggled to measure how each student was doing. With as many as 120 students each term, keeping track of the progress of each student was made even more difficult when students would miss class and get behind.

"Classes are a journey and I take an apprentice approach," DeBroeck added. "I try to bring into the class real-life experiences and employable skills related to the technology industry. I have to make it rigorous and relevant or students are not going to be prepared to compete."



The Solution: LabSim “Hands-On” and “Green”

DeBroeck first became aware of TestOut's LabSim software in 2001 via the vendorís academic grant program. He installed LabSim onto the classroomís local area network (LAN) server, and from each computer, students were able to gain the real-world experience DeBroeck was hoping to give them. The LabSim lab simulations provide the hands-on learning, while the videos, practice exams and other instructional content supplement DeBroeckís teachings in courses related to certifications such as A+, Network+, Security+, CCNA and MCSA.

“We used to have more physical computers in our classrooms, but now, we use LabSim instead, which has reduced our costs significantly,” DeBroeck said. “While we do have a state-of-the-art

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physical lab here at Walla Walla, we no longer need to purchase and upgrade so much additional software, boards and other components and worry about whether the students are going to break anything or that the hardware is going to go to waste. When you think about it, LabSim is an environmentally 'green' product, another benefit to the school and community."

In the introductory classes, students work through the entire A+ Essentials LabSim online labs and then supplement their learning with physical computer lab work and logic. The students also delve deeper into electronics, then add networking with LabSim. In the more advanced classes, the students can pick the topics they want to go into such as Network+.

DeBroeck requires that students achieve 100 percent on the labs before they move on to the next assignment. While they work towards this 100 percent, LabSim provides instant feedback on their lab results that points them towards the course content for remediation on the topic.

"LabSim is really tailored to the way high school students in the digital age are used to learning," DeBroeck said. "It's media-based and visual. They even bring in their own headphones and get in their own zone so they can focus on what they are learning, instead of a noisy classroom."

LabSim also records the results for each student online, enabling DeBroeck to track the progress of - and evaluate - his students in real-time from any location with an Internet connection.

"The students have so many activities, distractions and are always missing out on lectures and important information,î he added. ìItís hard for them to catch up with other students. Then there are the students who want to go faster than others. Now I have the ability to let the students go at their own pace whether they need to review and catch up or speed ahead."

The Results: Experienced & Motivated Students

"We've had a tremendous success rate with LabSim," DeBroeck said. "In fact, our students are coming out of the program ready to start work -- and start this work with higher level IT jobs, not just computer repair. They're working at companies such as Intel, Microsoft, Chevron USA, with the vast majority getting those jobs right out of high school."

While many students are going right to work, they might also have already earned some significant college credit taking these courses. In addition to their high school grades, students in the program can earn up to 60 college credits at Walla Walla Community College. Requirements for the credits include earning an A or B in the class, completing a list of competencies, completing a portfolio of the work they've done, and putting together a resume and cover letter.

"Only about 25 percent of the kids will get those college credits, though, but that's 25 percent more than were able to get those credits before our classes," DeBroeck said.

In addition to preparing for work and IT certification testing, LabSim helps prepare the students for the scenario-based tests Washington State requires for "No Child Left Behind" reporting. "LabSim's scenarios helped my students prepare for the WASL testing by helping them to learn to think out of the box and solve problems based on scenarios. LabSim has been a huge asset to our curriculum."

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