Lessons Learned Through the Piedmont Futures Program: Why Career Education is Important to Student Success

By Erin Hughey-Commers

An architect stands in the middle of the school lunchroom near a projector. "This is your school," she says, pulling up a drawing of the building she's sketched out since her arrival half an hour ago. She pauses, waiting for the fifty-six students seated at cafeteria tables to recognize the building. "Now you redesign it. What do you want to do? You change it however you want to."

Hands shoot up in the air, and so many voices are raised out of turn that a counselor has to restore order. "I want a big gym. I want an amusement park. I want a swimming pool on the roof."

"Let's start with the pool," she says. She quickly draws it in, pausing only to show students how it would look from the front of the building, and to have them consider how they're going to get up to the roof. Are there special stairs? A ladder? More discussion ensues.

"Instead of talking about her job and losing her audience to the allure of orange Jell-O, the architect gives students a direct, hands-on experience of her career."

When it's time for questions and answers, a student raises his hand. "How do you get to be an architect?" he asks eagerly. "What classes do I have to take?"

Instead of talking about her job and losing her audience to the allure of orange Jell-O, the architect gives students a direct, hands-on experience of her career. Before leaving, she gets the counselor's email and promises to send a web site where students can continue to redesign the school on their own. Weeks later, emails are still going back and forth between her and several interested students.

Hands-on learning with business professionals is at the heart of our approach with the Piedmont Futures program at Piedmont Virginia Community College. Too often as educators, we provide the answers before students have

asked the questions; we create career pathways without providing students with sufficient opportunities to explore which path they want to take. Having worked with the Piedmont Futures initiative for nearly four years now, it's becoming clear to me just how important career education is to student success.

What We Do, and Why

At Piedmont Futures, our career programs run the gamut from tutoring programs and the Career Pathways Speaker Series for fifth-graders described above, to the Commonwealth Scholars program for eighth-grade students, to the Dress for Success job readiness workshops for eleventh- and twelfth-graders. We work directly with the business community, engaging area professionals as classroom speakers and career exhibitors. In all of our programs, professionals are asked to talk to students about their own careers and career pathways, and to help students draw the connection between current academic work and future success in the workplace.

Although many students hear these messages from their teachers and parents, all students benefit from exposure to other working professionals who can give them a broader view into the workplace.

When I came on board the Piedmont Futures program, I had little idea of what "career education" looked like. The college had just signed an agreement with five school systems in its service region to coordinate regional career education programs. Our mission is to "promote personal and academic success for all students through regional business and industry involvement in K-12 education and to build a community of responsible and productive citizens for the 21st Century" ("Piedmont Futures"). Besides the fact that we were to recruit employers for two region-wide career events for seventh and tenth graders, how we would achieve our mission was unknown.

Developing a Career Education Program

Many of our current programs have grown area needs, just as the larger division of Workforce Services, which houses the program, responds to industry and education needs as they occur.

For example, a school counselor with lunch duty at an elementary school wanted her fifth-graders to be more engaged during meals, and asked us to start a lunchtime speaker series. We asked a business professional to come in and talk with the students for twenty minutes about what was fun and interesting about his job. This evolved into the Career Pathways Speaker series, a monthly event featuring a speaker from a different career cluster each month. The program was a hit – students loved the interaction, and speakers

loved the illustrated thank-you notes students sent them afterwards. We have now offered the program at ten elementary schools across the region.

Our tutoring program for elementary school students grew out of survey responses from teachers who said their students needed more academic help. Fortunately, we were able to partner with an existing tutoring program, Friends in Schools Helping (FISH). This was already being run by a local organization, Jefferson Area Board of Aging, which provided this service at two elementary schools. At the same time, we were able to engage the college community as contributors to the program by offering students, faculty, and staff the opportunity to serve as tutors in the program. When this occurred, I realized that carrying out our mission involved not only working closely with the business community and the schools, but included partnering with some of the other agencies and non-profits in our community which were working toward the same end. Additionally, I saw that our role was not simply as a liaison but also as a contributing partner with our own unique resources to bring to the arrangement: students who were involved in service learning, and staff and faculty members who were willing to take some time out of their day to serve students in area elementary schools.

The year our initiative began, the Commonwealth Scholars program was set to expand from a few pilot sites. The governor, having learned what we were doing with the Piedmont Futures program, asked us to expand the program in our area to all five school systems that we serve. Suddenly we were promoting the program and recruiting speakers for all eighth-grade classrooms in our region. We have spent the last three years working closely with the CS program. First, we coordinated it in our region for two years, then we had the unexpected opportunity to revise the PowerPoint presentation and train six other colleges to coordinate the program regionally. We've grown in our understanding about how this program works, how it needs to work, and what its limitations are, which is true of most of our programs.

Different Programs for Different Grades

Early on, it was decided that the program should impact students at almost every grade level so that these young people would grow up having some sense of the workplace. Programs for different age groups took on different characteristics. Elementary school programs provided a solid academic foundation and gave students the material to dream a little about their futures, supplying them with role models that they could use to see themselves in a job. The middle grades focused on exploration and beginning to recognize the progression of a pathway.

During the regional Seventh Grade Career Expo students explored careers by going table to table, learning about careers. We've improved at coaching businesses to present career information in a concrete, hands-on format. Each year an engineering association brings a "building challenge," requiring students to use scotch tape, recycled blueprints, and their own ingenuity to build the tallest tower. A recent addition has been asking healthcare students from an area high school to lead activities such as dipping seventh-graders' gloved hands into a bucket of "blood" and then teaching them to remove the gloves without contaminating their hands. This has been useful for both sets of students – the seventh graders experimenting for the first time in the health fields, and the high school students showing the younger ones have evolved into what they knew how to do. "You get to see what it's like to be a teacher," a high school-age exhibitor reflected after the Expo last fall.

Programs for the upper grade levels help students find their way onto career pathways. Students at this level have very concrete questions about academic requirements for getting into career areas of interest. During the Tenth Grade Career Day, we fill PVCC classrooms with professionals – over 125 during the two-day event – who talk to groups of twenty to twenty-five students about their day-to-day work and the education and training necessary to enter their field. From time to time, students make connections with these speakers that yield summer internships.

Another program in which students have participated has been an interviewing skills workshop with employers, which took place prior to an on-campus job fair. We worked to have a diverse team of employers present for this event, including non-traditional role-models, so that each student had a chance at seeing himself in a job. Students attended the workshop and then practiced their new self-presentation skills at the fair. The event was considered a success if students gained confidence in seeking a job. Raising Cane's Chicken Fingers, a company that is annually involved in the workshop, later interviewed several of the students who participated in the workshop for a position at the company, and hired two who continue to work for them today. Students have responded that they find the program, even if they don't find a job at the fair. One young man commented, "It made me think about how to approach things, and how I can better myself."

Successes and Challenges

The young lawyer stands at the front of a dimly-lit classroom, a PowerPoint presentation projected onto a screen at the front of the room. Even though the lights are dim and the slides have been rolling, he has the eighth grade students captivated. He's just given the class of eighth-graders examples of the type of work available with only a high school diploma, and discussed the

limited chances to move into a managerial position without further education. He's talked about his own experience working at Arby's in the summer while in high school. An image of a pizza, representing a salary, comes up on the screen, and slowly, piece by piece, the money is whittled away by taxes, rent, food, and medical expenses until there's only a sliver left over. The point of his conversation is not to simply show how much money students can make at different levels of education, but also what that money will buy. Throughout the presentation the lawyer talks about the Commonwealth Scholars program, a curriculum in high school that better prepares students for success in college and the workplace. For many of these students, this is one of the first financial reality checks they've had, and receiving it from a young professional who has worked his way up to a stable and rewarding job makes an impression.

Anecdotal student response to this program has been positive. Comments have included the following: "I now want to go to college." "[The presentation] made me think about my career plans a lot." "Very helpful."

More importantly, the data also suggests that this face-to-face interaction between professionals and young people is impactful. Data on the program since it was taken over from the VCCS indicates that students in schools where the program has been in operation for more than one year have significantly higher rates of students taking the required courses in the Commonwealth Scholars program, including three years of science (biology, chemistry, and physics), three years of math (Algebra I, geometry, and Algebra II), and two years of a foreign language – as well as higher rates of students graduating with an advanced diploma (Swaim and Chafin). Even this one hour of an interaction with a business professional seems to be making a difference in how students choose to spend their time in high school, indicating a difference in how they are thinking about themselves and their futures.

What's worked well about the Commonwealth Scholars program, in which business persons give presentations on the importance of a rigorous course of study in high school, is the interaction between business professionals and students. This can become a dialogue between presenter and students about life-long learning, and what success means to each student. The program provides the opportunity for professionals to show an interest in an up and coming generation of young people in a way that can be validating and inspiring for those students. And even the least inspirational experience can be educational. Many times potential business presenters hesitate to become volunteers for the program, saying that they did their education/careers "all wrong." We reply that students need to learn from their stories.

Amid the successes, there are challenges. A survey from participating schools included comments that some of our presenters are not adequately trained in providing an interactive, hands-on presentation. While we are continually working with business people to integrate hands-on career learning into their presentations, this leads us to the question of how useful career education can be if it is structured in exactly the same way as students' school classes.

Problem Based Learning

Employers tell us that while they can teach almost any hard skill, what they want most in an employee is someone who can not only find a solution, but also identify the problem. These are the skills of almost any professional today - doctor, engineer, or HVAC technician. Many of the lessons students learn in school are taken out of context, presenting a problem that is already well-defined, to which the answer is already known. Career education at its best happens when students interact in a (perhaps simulated) real-life situation, so that they are able to determine the problem as well as work towards its solution.

Recently we discovered a form of career education that provides students with an in-depth look at a given career field, by immersing them in it for a week. Two years ago when Central Virginia Community College received a grant to provide funds and mentoring to other colleges to emulate their highly successful Summer Career Academies for middle school students, PVCC applied and received funds to run two summer Academies, one in health technologies and another in computer technologies. Following a template established by CVCC, we created a weeklong program in which students learned about technology with program instructors at PVCC and took field trips to area businesses, and U.Va. Students were able to spend more time in-depth exploring – programming robots, writing code, and performing CPR. Comments from the health technologies academy included: "I loved the rescue squad visit and the surgery tour." "Now I'm comfortable saving a life." "I liked how the instructors participated and how the [helicopter rescue] people showed us how a real emergency was."

Given such positive response to our programs the first year, last summer we expanded our Academies to include six different topics, focused on Science, Technology, Engineering, and Math (STEM). Students were challenged to launch rockets, build telescopes, and document global climate change.

We partnered with the University of Virginia, including the Computer Science Department and the Center for Diversity in Engineering on these Academies. Many departments at the University served as field trip sites, with undergraduates and faculty members hosting. In conjunction with the CS department, we received an award from Google Roots in Science and Engineering to help fund the program, enabling us to provide scholarships to financially needy students. We also worked closely with Computers4Kids, an organization serving low-income youth, to recruit students for the Academy. Together we are building a career/education pipeline for area students, including girls, minorities, and urban/economically underprivileged youth. This summer, we are looking forward to over twenty different career academies, including forensics, intelligence analysis, biology experiments, and architecture.

In problem-based learning, students can take different roles in a team effort. Some people become the problem-solvers on the technical side, while others serve to facilitate the discussion and take the lead in determining the best solution. Many middle school students may already have a sense of their strengths, while others don't have a clue. The key is to give students a picture of the breadth of possible career choices and work roles, and an experience of themselves as significant contributors in a dynamic world of problems and solutions. Ultimately, this is not merely about providing individual students with motivation to go on to post-secondary training or education, but also about having these young minds help re-define the problems we are facing today – and in a few years, with some acquired skills, work with us to solve them.

Career education goes beyond making students aware of universal career skills. It helps students develop an ability to take the lead in their own learning. At the community college, we can do this by leveraging our relationships with both businesses and K-12 education, and by shaping this interaction to give students a glimpse of their future.

Through meaningful interaction with working professionals, students begin to see a connection between their present and their future. They have their own reason to make use of their time in school, and to choose a career pathway. They've learned *why* the pathway. They've asked the question, and we're providing the answer.

As Coordinator of PVCC's Piedmont Futures program, Erin Hughey-Commers works with five school systems and over one hundred local businesses, non-profits, and civic groups to implement career pathways programming for students K-12, including the Summer Career Academies at PVCC. In addition to coordinating regional programs, Piedmont Futures has worked with the VCCS to provide statewide leadership for the Commonwealth Scholars program since 2009.

Works Cited

"Piedmont Futures." *pvcc.edu*. Piedmont Virginia Community College, n.d. Web. 25 Feb. 2011. <http://www.pvcc.edu/instructional_divisions/workforce_services/piedmont_futures/>.

Swaim, Charles B., and Carl K. Chafin, Ph.D. "Analysis of 2008-09 Baseline Data from the 2009-10 Participating Commonwealth Scholars High School." *Commonwealth Scholars*. Virginia's Community Colleges. 24 Feb. 2010. Web. 8 Mar. 2010.