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How Dual-Track Education Could Help Students Gear Up for the Digital Economy

A number of European countries view apprenticeships as a major pathway between school and work

By Irving Wladawsky-Berger
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The rise of today's knowledge-based digital economy underscores the critical importance of a good education, but what exactly that education involves has become a hot topic in many educational and professional circles. Questions linger over whether a four-year college education today properly prepares students for the job market. Is college still worth it, given their increasing costs and the student loan debt crisis? Should we continue to encourage young people to get a college degree?

A few weeks ago, I read a very interesting article in The Chronicle of Higher Education, Why Colleges Need to Embrace the Apprenticeship. The article raised a number of important questions on the future of college education, in particular, the value of an education that combines formal schooling with real-world practical experience, often referred to as a dual-track educational system.

The Chronicle article addresses a number of these questions, positing that apprenticeships today "represent a kind of refutation of college education – a recognition that something about the path from college to career is not working for many people." The article explains why vocational apprenticeships have not fared as well in the US as they have in other advanced economies, and why apprenticeships, and similar dual-track systems, are increasingly important for all careers, including white-collar and professional careers requiring a bachelor's or higher professional degree.

A number of European countries, most notably Germany, Switzerland and Austria, view apprenticeships as a major pathway between school and work. They offer dual-track programs that combine apprenticeships in a company with a formal education at a vocational or trade school. The Chronicle writes:

> "Swiss students start learning about apprenticeship opportunities as early as the fourth grade, and 70 percent of them will start an apprenticeship at age 15 on their way to college or a job. Advocates for apprenticeships often point to the results in Switzerland: Swiss high schoolers are ready to work by the time they graduate. Ninety-seven percent of them graduate from high school there, compared with 82 percent in the United States. The youth unemployment rate – which measures the jobless status of 15- to 24-year-olds – averages around 8 percent in Switzerland, versus 10 percent in the United States. Nearly half of Swiss companies participate in

> apprenticeship programs, and half of the business leaders in the country were once apprentices."

However, adds the article, "In the United States, apprenticeships are relatively little known, used mainly by the building trades and the manufacturing industry, and largely disconnected from the offerings of high schools or colleges." A key reason is educational tracking, a system that separates secondary school students into groups based on their perceived ability, with some placed in college-bound tracks and others in vocational tracks. Educational tracking is common in many countries around the world, but it's been deemed to be discriminatory in the U.S.

> "Apprenticeships, associated with the trades, were out of sync with an education system pushing college for all... The success of apprenticeship programs in the United States hinges on their connections to higher education. The college degree is still the most accepted credential – the gateway to viable careers – and apprenticeships have to work with that system. What's more, given the negative associations with tracking, many people would resist an educational alternative that diverts people from postsecondary education."

While apprenticeships have not been popular in the U.S., similar dual-track programs have long been used to prepare college and graduate students for white-collar and professional careers. Internships for example, are generally more informal and less rigorous than apprenticeships, and can be paid or unpaid. They're often used to give college students practical work experience in their field of study. Some schools require graduating seniors to do a research internship with a company and write a dissertation based on the results of their research. Several colleges, like Northeastern and Antioch, have long offered co-op programs that include a structured job experience as part of their education. A number of professions, like medicine, have formal internship programs as part of their training and licensing requirements. And, most teaching certification programs require practical classroom experience in addition to a bachelor's or masters degree.

More recently, Career Wise Colorado, a partnership between educational institutions, companies and government, started an apprenticeship program to train the next generation of workers in their state. "If a student understands the relevance of what they are doing in their aspiration for work, then you've got them," said Noel Ginsburg, founder and CEO of Career Wise Colorado. "Soft skills are actually better taught in a business environment than they are in a classroom. In a classroom, the consequences are very different – like you don't get fired. But when you're put in a professional environment at a young age in a business, you behave differently, hopefully."

"This fall, as many as 140 high-school students will work as apprentices, earning college credit and a salary at more than 50 businesses in Colorado – in health care, education, telecommunications, technology, and manufacturing," notes The Chronicle. "If CareerWise meets its goals, 20,000 Colorado students will be enrolled in apprenticeship programs by 2027."

The value of dual-track education in applied disciplines like engineering, business, health care and teaching is quite clear, but how could it apply to the liberal arts? For a while now, I've felt that design thinking, an increasingly popular set of methods used by designers to come up with creative solutions to all kinds of real-world, complex, messy problems, might well be the right complement to a solid liberal arts education, given its reliance on prototyping and experimentation as a way to come up with workable solutions. I can easily imagine a dual track liberal arts program that includes classroom courses for the foundational parts of the education, along with internships, apprenticeships and the like for the problem solving, design-thinking oriented parts of the program.

What about dual-track programs for the two-thirds of American adults who don't have and are not likely to get a four-year college degree? A few days ago, I learned about two such programs. One is Skillful, which aims to foster skills oriented hiring, training and education to help workers get good paying middle-skill jobs in technology, advanced manufacturing and health care. Skillful was created by the Markle Foundation in

collaboration with Microsoft Corp., LinkedIn, the state of Colorado and local employers and educators.

The second is TechHire, a national network of communities, educators and employers which aims to expand the opportunities to learn new tech skills by addressing two big problems: “access to training is limited to individuals who have the time, money, and support to pursue learning a new skillset,” and “current hiring practices often screen out quality candidates who have the skills, but lack traditional degrees.”

TechHire is focused on leveling the playing field in three key ways: expanding training options and providing resources so that more people can access tech training; partnering with employers to help them give job candidates with non-traditional training an opportunity to show they have the skills to do the job; and helping to build relationships between employers, training providers, job seekers, and other local organizations.

Personally, I learned at least as much from the part-time computer job I had in college and the research assistanship I had in graduate school, as I did from my formal classroom education. Regardless of program or degree, a good education should give us the necessary skills to get a good job in the near term, as well as the long-term skills to continue learning and adapting to a fast changing work environment throughout our lives. In the end, that’s what a good education should be all about.

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